Technical Memorandum

Co-Located Chemical Sampling Results for Deep Borehole Soil Samples Collected at Historical Site Assessment Subareas 5A, 5C, 6 and 7 in Area IV



Santa Susana Field Laboratory Ventura County, California

Prepared for:

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Energy Technology and Engineering Center
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Canoga Park, California 91309

Prepared by:

CDM Federal Programs Corporation (CDM Smith)

Prepared under:

US Department of Energy
EM Consolidated Business Center
Contract DE-AM09-05SR22404
CDM Task Order DE-AT30-08CC60021/ET17

September 2012

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I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

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Table of Contents

Section 1 Introduction 1-1

1.1 Co-Located Soil Chemical Sampling Objectives 1-1
1.2 Basis for Deep Borehole Soil Sampling in HSA Subareas 5A, 5C, 6, and 7 1-1
1.3 Geology 1-2
1.4 Technical Memorandum Organization 1-2

Section 2 Field Sampling and Analytical Methods 2-1

2.1 Subsurface Soil Sampling 2-1
2.2 Sample Handling 2-7
2.3 Field Quality Control Procedures 2-7
2.3.1 Field Duplicates and MS/MSD Samples 2-7
2.3.2 Equipment Rinsate Blank Samples 2-7
2.3.3 Field Blank Samples 2-8
2.3.4 Decontamination of Sampling Equipment 2-8
2.4 Analytical Laboratory Methods and Procedures 2-8
2.4.1 Analytical Methods 2-8
2.4.2 Analytical Method Modifications 2-9
2.5 Data Review Processes 2-10
2.6 Increased Field and Laboratory Quality Control Measures 2-11
2.7 Deviations from the WP/FSAP 2-11
2.7.1 Field Sampling 2-12
2.7.2 Analytical Methods 2-12

Section 3 Area IV Deep Borehole Soil Sampling Results 3-1

Section 4 Data Usability Assessment 4-1

4.1 Usability Summary 4-1
4.2 Data Validation Procedures 4-1
4.3 Quality Assurance Objectives 4-2
4.4 Summary of Field and Laboratory QA Activities 4-3
4.5 Field Quality QA/QC 4-3
4.6 Laboratory Quality QA/QC 4-5
4.7 Data Quality Indicators 4-5
4.7.1 Precision 4-5
4.7.2 Accuracy 4-7
4.7.3 Blank Contamination 4-9
4.7.4 Representativeness, Comparability, and Sensitivity 4-10
4.7.4.1 Representativeness 4-10
4.7.4.2 Comparability 4-11
4.7.4.3 Sensitivity 4-11
4.8 Review of Selected Validation Reports 4-12
4.9 Data Completeness 4-12
4.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals 4-15

Section 5 References 5-1

List of Figures

Figure 2-1 Subarea Deep Borehole Sample Locations 2-3
Exhibit Deep Borehole Sample Locations

List of Tables

Table 2-1 Soil Samples Collected from Deep Borehole Locations in HSA Subareas 5A, 5C, 6, and 7 2-5
Table 2-2 Analytical Methods and Method Modifications for Soil 2-10
Table 3-1 Summary of Analytical Results for Chemicals - Validated Data Subsurface Soils - Deep Borehole Samples 3-3
Table 4-1 Sample Delivery Groups and Validation Levels for Deep Borehole Soil Samples 4-2
Table 4-2 Equipment Blanks for Deep Borehole Samples – Detected Results Only 4-4
Table 4-3 Trip Blanks for Deep Borehole Soil Samples – Detected Results Only 4-4
Table 4-4 Summary of Data Completeness Following Data Validation – Deep Borehole Soil Samples 4-14

Appendices

Appendix A Analytical Results Tables
Appendix B Laboratory Reports
Appendix C Data Usability Assessment Report and Data Validation Reports
Appendix D Master Database Table

Acronyms and Abbreviations

%D	percent difference/percent drift
%R	percent recovery
mg/L	milligram per liter
ng/kg	nanogram per kilogram
ng/L	nanogram per liter
pg/L	picogram per liter
µg/L	micrograms per liter
AOC	Administrative Order on Consent
ASTM	American Society for Testing and Materials
bgs	below ground surface
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
EDL	estimated detection limit
EFH	extractable fuel hydrocarbon
EMAX	EMAX Laboratories, Inc.
EPA	U.S. Environmental Protection Agency
FSP	field sampling plan
FTL	field team leader
GATT	glycols, alcohols, terphenyls and TPH-extractable fuel hydrocarbons
GRO	gasoline range organics
HGL	HydroGeoLogic, Inc.
HSA	Historical Site Assessment
ICP	inductively coupled plasma
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LLI	Lancaster Laboratories, Inc.
MDL	method detection limit
mL	milliliters
MS	matrix spike
MSD	matrix spike duplicate
NDMA	n-Nitrosodimethylamine
PAH	polycyclic aromatic hydrocarbon
PARCCS	precision, accuracy, representativeness, comparability, completeness and sensitivity
PCB	polychlorinated biphenyl
PCT	polychlorinated triphenyl
PID	photoionization detector
QA	quality assurance

QAPP	quality assurance project plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RL	reporting limit
RL-LCS	reporting limit laboratory control sample
RL-MS	reporting limit matrix spike
RPD	relative percent difference
SDG	sample delivery group
SIM	selective ion monitoring
SOW	statement of work
SSFL	Santa Susana Field Laboratory
SVOC	semi-volatile organic compound
TM	technical memorandum
TPH	total petroleum hydrocarbon
VOC	volatile organic compound
WP/FSAP	Work Plan/Field Sampling and Analysis Plan

Section 1
Introduction

This Technical Memorandum (TM) presents the results of chemical analyses of subsurface soil collected under the *Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM] 2011) (WP/FSAP), and *Addendum No. 7 to Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV Santa Susana Field Laboratory, Ventura County, California, Deep Borehole Sampling at SNAP Building 4059, KEWB Building 4073, SRE Building 4143, and STIR Building 4028* (CDM Smith 2012).

This TM addresses deep borehole sampling within U.S. Environmental Protection Agency (EPA) Historical Site Assessment (HSA) Subareas 5A, 5C, 6, and 7 of Area IV at Santa Susana Field Laboratory (SSFL) and provides a description of the sampling activities, analytical results, and a discussion of the analytical data review findings. 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 (RFI) efforts within the Area IV soil chemical database. A data gap analysis will be performed to assess the adequacy of Area IV data as a whole in defining the nature and extent of chemicals in soil for purposes of remedy determination.

1.1 Co-Located Soil Chemical Sampling Objectives

The radiological characterization study being performed by EPA includes collection of surface and subsurface soil, as well as drainage soil samples throughout Area IV of SSFL and the Northern Buffer Zone for analysis of radionuclides. The California Department of Toxic Substances Control (DTSC) and Department of Energy (DOE) agreed in the *Administrative Order on Consent for Remedial Action (AOC,* Docket Number HSA-CO 10/11-037) (DTSC 2010) that soil/sediment samples collected by EPA will also be analyzed for chemical analytes. EPA's contractor, HydroGeoLogic, Inc. (HGL) was responsible for the collection of the EPA-proposed soil samples. DTSC and DOE agreed that the chemical analyses of the soil samples provided by EPA would be done by DOE's contractor, CDM Federal Programs (dba CDM Joint Venture [CDM Smith]). CDM Smith was responsible for the management, shipment, and laboratory analyses of the samples collected for chemical analyses.

The AOC was signed by DTSC and DOE on December 6, 2010. The AOC is a legally binding order that requires and describes the characterization of Area IV and Northern Buffer Zone soils/sediments and further defines DOE's obligations in relation to radiologic and chemical cleanup of soils within these areas. It also stipulates that during Phase 1 of the chemical investigation activities, DOE is to analyze soil samples for chemical constituents at locations where EPA collects a sample for radiological analysis.

1.2 Basis for Deep Borehole Soil Sampling in HSA Subareas 5A, 5C, 6, and 7

HGL's *Field Sampling Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California* (HGL 2010) includes a description of the project objectives, the scope of

work, laboratory analytical suites, sample collection and other standard field operation methods for EPA's radiological characterization study.

The *Draft Final Deep Borehole Field Sampling Plan (FSP) Addendum, Santa Susana Field Laboratory Site, Area IV Radiological Study* (HGL 2011a) was prepared by HGL to support the radiological soil sampling field implementation program specific to deep boreholes in Subareas 5A, 5C, 6, and 7. CDM Smith obtained split soil samples for chemical analysis at each location where HGL collected soil samples for radionuclide analyses.

1.3 Geology

All of the deep boreholes were drilled into fill materials. Information regarding the geology in Area IV can be found in *Draft Group 3 Remedial Investigation Report at the Santa Susana Field Laboratory, Ventura County, California* (CH2M Hill 2009), *Group 5 – Central Portion of Areas III and IV RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California* (CH2M Hill 2008), Volume I of *Group 6 – Northeastern Portion of Area IV, RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California* MWH 2006), and Volume I of *Group 7 – Northern Portion of Area IV, RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California* (MWH 2009).

1.4 Technical Memorandum Organization

This TM includes the following sections:

- **Section 1 - Introduction** – Summarizes the basis and objectives of the co-located soil sampling for deep boreholes
- **Section 2 - Field Sampling and Analytical Methods** – Provides details regarding field sampling procedures and laboratory analytical methods
- **Section 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**

Section 2

Field Sampling and Analytical Methods

Subsurface samples were collected from the deep borehole locations in Subareas 5A, 5C, 6, and 7 beginning February 13 and ending February 22, 2012. The sample locations in each subarea are shown on Figure 2-1.

Table 2-1 provides EPA's rationale for sampling at each location, sample number and date of collection of the soil samples, location description, description of the fill materials encountered, and the analytes proposed for testing.

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 the WP/FSAP.

2.1 Subsurface Soil Sampling

Previous Phase 1 soil sampling in each of these four subareas was performed by a California-licensed direct push technology (DPT) subcontractor under HGL oversight. The deeper boreholes at these four former building locations were drilled and sampled by the same California drilling company using a track-mounted 100-C sonic drill rig. The sonic drilling method is able to penetrate subsurface conditions such as concrete or other construction debris upon which a DPT rig would encounter refusal. The sonic rig uses a double-cased system consisting of an inner core barrel (5 feet long and 3-¼ inches inner diameter) and an override casing that fits around the core barrel. The override casing is vibrated by the rig around the core barrel. The sampling was performed as follows:

The first boring at each location was sampled by HGL. A section of core barrel was advanced to the targeted depth and then overridden by the sonic casing. The soil filled core barrel was pulled out of the override casing, which is left in the borehole. The soil was vibrated out of the core barrel by the sonic rig and extruded into a plastic bag, forming a sleeve around the sample. The five foot sleeve of soil was placed on the sample table, the sleeve was slit open and the soil lithologically described and screened by HGL with a Pancake meter for alpha/beta radiation, a Micro R meter for gamma radiation, and a photoionization detector (PID) for volatile compounds.

A second boring was advanced approximately 2 feet from the first boring and the core barrel advanced. A small slit was made at one foot intervals along the soil filled sleeve retrieved from the core barrel. HGL screened the sample with the PID instrument at each one-foot interval to measure any volatile compound concentrations. The sleeve was slit lengthwise and the entire length screened again with the PID. CDM Smith obtained soil material from within one-foot sections from any and all depths exhibiting radiation or volatile compound measurements above background, or with observed staining, and/or odor. In the absence of elevated measurements, staining, or odor, a soil sample was collected from the bottom foot of the sample interval. The one-foot section of core was removed at the sampling depth and divided longitudinally using a clean trowel or putty knife. The requisite number of Encore samplers were filled directly from the freshly exposed soil along the cut surface of the core. For the remaining analyses, one or more 8-ounce jars were filled with soil.

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N

Legend

- Sample Location
- Area IV Subarea
- Removed Building

Aerial Source: Bing Maps, (c) 2010 Microsoft Corporation and its data suppliers

Deep Boring Zone Sample Locations

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

0 31.5 63 126 189 252 Feet

CDM Smith

Y:\SantaSusana\GIS\GIS_2011\MXD\SSFL_DBZ_Sampling_Locations_20120820.mxd 8/22/2012

Table 2-1
Soil Samples Collected from Deep Borehole Locations in HSA Subareas 5A, 5C, 6, and 7

Subarea	EPA Location ID	Location Description from EPA	EPA Technical Justification for Sample Collection	Boring Total Depth (ft bgs)	Description of Fill Encountered (from EPA Soil Boring Log)	Sample Date	Laboratory Analyses	Co-Located Chemical Sample Number
5C	146	Central portion of Building 4059, inside footprint	Soil from Bldg 4059 D&D excavation used to backfill.	50.0	Fill from surface to 48.5 feet bgs; comprises sandy silt with gravel, fill gravel, clay with sand, sandy silt with clay, silty sand, sandy clay, silty sand with gravel. Total depth in weathered siltstone.	2012-02-13	VOCs/1,4-Dioxane Primary & Secondary	SL-146-SA5C-SB-48.0 SL-146-SA5C-SB-47.5-48.5
5C	147	Central portion of Building 4059, inside footprint	Soil from Bldg 4059 D&D excavation used to backfill.	57.0	Fill from surface to 55.5 feet bgs; comprises sandy silt, clay, silty sand, sandy clay, silty sand with gravel, clayey sand, traces of concrete. Total depth in weathered sandstone.	2012-02-15	VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary	SL-147-SA5C-SB-40.5 SL-147-SA5C-SB-40.0-41.0 SL-147-SA5C-SB-55.5 SL-147-SA5C-SB-55.0-56.0
5C	148	Central portion of Building 4059, inside footprint	Soil from Bldg 4059 D&D excavation used to backfill.	44.0	Fill from surface to 41 feet bgs; comprises sandy silt, clay with slit, silty sand with gravel, clay, clayey sand, asphalt, concrete, sandstone gravel. Total depth in weathered siltstone.	2012-02-14	VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary	SL-148-SA5C-SB-40.5 SL-148-SA5C-SB-40.0-41.0
5A	260	Inside footprint of KEWB Exhaust building.	Above ground structures removed; asphalt & concrete rubble left below ground.	8.0	Fill from surface to 5.5 feet bgs; comprises sandy silt with gravel, trace asphalt, concrete. Total depth in weathered sandstone.	2012-02-16	VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary	SL-260-SA5A-SB-6.0 SL-260-SA5A-SB-5.5-6.5
5A	261	Inside footprint of KEWB Exhaust building.	Above ground structures removed; asphalt & concrete rubble left below ground.	9.5	Fill from surface to 8.5 feet bgs; comprises sandy silt, silty sand with gravel, concrete. Total depth in weathered sandstone.	2012-02-15	VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary	SL-261-SA5A-SB-9.0 SL-261-SA5A-SB-8.5-9.5
6	323	Sodium Reactor Experiment Complex - Central Portion, west of former Reactor Vault.	Potential radiological contamination associated with the former Reactor Vault.	30.0	Fill from surface to 20 feet bgs; comprises sandy silty, silty clay with sand, silty sand with gravel, silty clay with gravel, concrete debris, sandy clay with gravel. Solid concrete from 20 - 23 feet bgs. Total depth in sandstone.	2012-02-20	TPH-GRO Primary & GATT	SL-323-SA6-SB-23.5 SL-323-SA6-SB-23.0-24.0
6	324	Sodium Reactor Experiment Complex - Central Portion.	Potential radiological contamination associated with the former Reactor Vault.	24.8	Fill from surface to 20 feet bgs; comprises sandy silt with gravel, silty sand with gravel, cobbles, trace steel reinforced concrete, asphalt, silty sand. Solid concrete from 20 to 24.75 feet bgs. Total depth in weathered sandstone.	2012-02-16	TPH-GRO Primary & GATT	SL-324-SA6-SB-25.5 SL-324-SA6-SB-25.0-26.0
6	325	Sodium Reactor Experiment Complex - Central Portion.	Near Location of former Dry Fuel Storage Cell as shown in Floor Plan presented as Figure 2.1.3b of Subarea 6 Historical Site Assessment.	27.0	Fill from surface to 26 feet bgs; comprises silty sand with gravel, sandy clay, clayey sand with gravel, black concrete debris, asphalt, sandy silt with gravel, sand with gravel. Total depth in weathered sandstone.	2012-02-17	VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary VOCs/1,4-Dioxane/TPH-GRO Primary & Secondary	SL-325-SA6-SB-22.0 SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.5 SL-325-SA6-SB-26.0-27.0
6	326	Sodium Reactor Experiment Complex - Central Portion.	Near Location of former Hot Cell as shown in Floor Plan presented as Figure 2.1.3b of Subarea 6 Historical Site Assessment.	25.0	Fill from surface to 22.75 feet bgs; comprises sandy silt, silty sand with gravel, concrete rubble and rebar, silty clay with sand, silty clay, and sand. Total depth in weathered sandstone.	2012-02-16	TPH-GRO Primary & GATT	SL-326-SA6-SB-23.5 SL-326-SA6-SB-23.0-24.0
7	186	Within Shield Test and Irradiation Reator Building 4028 Complex foot print.	Near Former location of the Test Vault.	32.0	Fill from surface to 28 feet bgs; comprises silty sand with gravel, sandy silt, clayey sand, concrete debris, silty sand, sand with gravel. Total depth in weathered sandstone.	2012-02-21	TPH-GRO Primary, GATT, formaldehyde, NDMA, nitrate & Dowanol	SL-186-SA7-SB-27.5 SL-186-SA7-SB-27.0-28.0
7	187	Within Shield Test and Irradiation Reator Building 4028 Complex foot print.	Near Former location of the Test Vault.	33.5	Fill from surface to 28.5 feet bgs; comprises sandy silt; silty sand with gravel, clayey sand, and sand with gravel. Total depth in sandstone.	2012-02-22	TPH-GRO Primary, GATT, formaldehyde, NDMA, nitrate & Dowanol	SL-187-SA7-SB-28.0MS SL-187-SA7-SB-27.5-28.5MS
7	188	Within Shield Test and Irradiation Reator Building 4028 Complex foot print.	Former location of the Reactor Pool (Drawing 301-018-P4).	23.0	Fill from surface to 19.5 feet bgs; comprises sandy silt with gravel, silty sand, clayey sand, and silty sand with gravel. Total depth in siltstone.	2012-02-21	TPH-GRO Primary, GATT, formaldehyde, NDMA, nitrate & Dowanol TPH-GRO Primary, GATT, formaldehyde, NDMA, nitrate & Dowanol	SL-188-SA7-SB-19.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.5 SL-188-SA7-SB-22.0-23.0

Notes & Abbreviations:

Primary analyses include: SVOCs, Metals, Chromium VI, Fluoride, Perchlorate, PCBs/PCTs, Dioxins/Furans, and pH

Secondary analyses include: Alcohols, terphenyls, glycols, TPH-extractable fuel hydrocarbons, Formaldehyde, n-Nitrosodimethylamine, Energetics, Nitrate, Cyanide

SL-325 was planned to be sampled for Primary analytes, glycols, TPH, alcohols, and terphenyls; but was sampled for all secondary analytes and VOCs/1,4-dioxane due to a PID reading above background

bgs = below ground surface

D&D = decontamination and decommissioning

ft = feet

GATT = glycols, alcohols, terphenyls and TPH-extractable fuel hydrocarbons

GRO = gasoline range organics

KEWB = Kinetics Experiment Water Boiler

NDMA = n-Nitrosodimethylamine

PCB/PCTs = polychlorinated biphenyls/polychlorinated triphenyls

SVOCs = semivolatile organic compounds

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

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After all samples were collected from each boring the soil cuttings were used to backfill the hole and the hole was topped off with a bentonite chip seal. At locations in asphalt, asphalt patch material was applied on top of the bentonite.

2.2 Sample Handling

All soil samples collected by HGL for chemical analyses were relinquished by the field sampler to CDM Smith's Field Team Leader (FTL). The FTL ensured that the sample labels were completed legibly and accurate. Any discrepancies were discussed with the field samplers and corrections to the sample labels were made as needed. All sample labels were covered with clear tape, the sleeves and jars placed back into their plastic baggie, and refrigerated.

All sampling information was recorded onto one or more chain-of-custody (CoC) forms. Each sampler reviewed the CoC and any discrepancies were corrected by the FTL. 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 in accordance with Section 6.4 of the *Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM 2011).

2.3 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, and field blanks. 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 VOCs, 1,4-dioxane, and/or total petroleum hydrocarbons-gasoline range organics (TPH-GRO).

2.3.1 Field Duplicates and MS/MSD Samples

Both the field duplicates and MS/MSD samples were collected at a frequency of approximately one per 20 parent soil samples collected. The field duplicate and MS/MSD samples were 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 double volume for the subsurface samples.

One MS/MSD/duplicate sample was collected from SL-187 and analyzed for the primary analytes (with dowanol reported also), glycols, alcohols, TPH-extractable fuel hydrocarbons (TPH-EFH), and terphenyls (abbreviated as GATT in this document), TPH-GRO, formaldehyde, nitrate, and n-Nitrosodimethylamine (NDMA). However, the MS/MSD/duplicate sample should have been collected from one of the sample locations where all secondary analytes and volatile organic compounds (VOCs) and 1,4-dioxane were sampled. This oversight constitutes a variance from the FSAP (see Section 2.7.1).

2.3.2 Equipment Rinsate Blank Samples

As stated in the WP/FSAP, equipment rinsate blanks were to be collected and submitted for chemical analysis at a minimum frequency of approximately one per 20 parent soil samples collected for each sampling technique. Rinsate blanks were also collected whenever there were changes in the sample collection procedures, sampling decontamination procedures, or sampling equipment. Two equipment blanks were collected in association with the deep borings in Subareas 5A, 5C, 6, and 7.

2.3.3 Field Blank Samples

Field blanks were to be collected once for each lot number of American Society for Testing and Materials (ASTM) Type II water that HGL used for decontamination. No field blanks were collected during the deep borehole sampling in Subareas 5A, 5C, 6, and 7. The deep borehole samples are associated with the field blank collected on November 1, 2011 and have been validated accordingly.

2.3.4 Decontamination of Sampling Equipment

All drilling equipment was cleaned by HGL and their drilling subcontractor before and after completing each boring. This included the sampling device and drill rods. 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., were removed. The equipment was then rinsed with potable water.

If the sampling device was not used immediately after being decontaminated, it was wrapped in oil-free aluminum foil, or placed in a closed plastic, stainless steel, glass, or Teflon® container.

2.4 Analytical Laboratory Methods and Procedures

2.4.1 Analytical Methods

The analytical methods for the co-located chemical soil samples were divided into two suites of analyses. The primary suite performed on all samples includes:

- Metals using EPA Methods 6020, 7471A (mercury), and 7199 (chromium VI)
- Soil pH using EPA Method 9045D
- Fluoride using EPA Method 300.0
- Semivolatile organic compounds (SVOCs) using EPA Method 8270C and polyaromatic hydrocarbons (PAHs) using Method 8270C selective ion monitoring (SIM)
- Polychlorinated biphenyls (PCBs) and Polychlorinated triphenyls (PCTs) using EPA Method 8082
- Dioxins and furans using EPA Method 1613B
- Perchlorate using EPA Method 314.0 (and EPA Method 6850 for verification of non-detects at a rate of 10 percent of the samples submitted)

Locations selected for sampling for the secondary suite of analyses were based on several factors including a process history of the specific chemical usage, sample sites with elevated instrument readings, soil fill, waste, or visually contaminated materials. The secondary list of analyses includes:

- Nitrates using EPA Method 300.0
- Formaldehyde using EPA Method 8315A
- TPH-GRO/TPH-EFH/glycols using EPA Method 8015B GRO,8015B EFH and 8015B respectively
- NDMA using EPA Method 1625C
- Energetics using EPA Method 8330A/8332
- Cyanide using EPA Method 9014

- Alcohols and terphenyls using EPA Method 8015B

Samples from several locations were also analyzed for:

- VOCs using EPA Method 8260B
- 1,4-dioxane using EPA Method 8260B SIM

2.4.2 Analytical Method Modifications

The analytical laboratory originally used for the co-located soil sampling effort was Lancaster Laboratories Inc. (LLI) of Lancaster, Pennsylvania. LLI was selected by competitive procurement based on their proposed method detection limits (MDLs). Selection of LLI as the co-located soil analytical laboratory was discussed with the community on October 10, 2010. A second laboratory (EMAX Laboratories, Inc. [EMAX] located in Torrance, CA) was subcontracted and samples collected from the deep boreholes were submitted to both LLI and EMAX laboratories. EMAX performed all analyses with the exception of samples collected for dioxin/furans, formaldehyde, NDMA and terphenyls. LLI performed these analyses. Although the methods performed by EMAX are not identical to the methods performed by LLI in some cases, the methods are equivalent.

The analytical methods identified for the co-located soil sampling were selected to be consistent with the methods used for the RFI. These analytical methods are presented in the *Quality Assurance Project Plan, Santa Susana Field Laboratory RCRA Facility Investigation, Surficial Media Operable Unit* (MECx 2009) (RFI Quality Assurance Project Plan [QAPP]) and are listed in Table 2-2.

For the deep borehole sampling, CDM Smith also evaluated the RFI QAPP detection limits relative to risk-based soil criteria. There were several instances where risk-based soil values were lower than the RFI QAPP limits. To determine whether the analytical MDL could be lowered, method modifications were discussed with DTSC and LLI chemists at the time of implementation. The ability of the laboratory to achieve project reporting limits (RLs) and QC goals using these method modifications remains under evaluation by the project chemists. Table 2-2 identifies methods that have been modified in an effort to lower respective MDLs and RLs.

Table 2-2 Analytical Methods and Method Modifications for Soil

Parameter Group	Analytical Method	Method Modified?
Volatile Organic Compounds	EPA 8260B	No
1,4-Dioxane	EPA 8260B SIM	No
Primary Analytes		
Select SVOCs	EPA 8270C SIM	No
SVOCs	EPA 8270C	No
Metals (including Mercury)	EPA 6020/7471A	No
Chromium VI	EPA 7199	No
Fluoride	EPA 300.0	No
Perchlorate[1]	EPA 6850	No
Perchlorate	EPA 314.0	No
PCBs/PCTs	EPA 8082	Yes
Dioxins/Furans	EPA 1613B	No
Soil pH	EPA 9045D	No
Secondary Analytes		
Alcohols	EPA 8015B	Yes
Terphenyls	EPA 8015B	Yes
Glycols	EPA 8015M	Yes
TPH (GRO and EFH)	EPA 8015B GRO/8015B EFH	Yes
Formaldehyde	EPA 8315A	Yes
n-Nitrosodimethylamine[2]	EPA 1625C	No
Energetics	EPA 8330A/8332	Yes
Nitrate	EPA 300.0	No
Cyanide	EPA 9014	No
Soil pH	EPA 9045D	No

[1] Perchlorate by Method EPA 6850 was analyzed on 10 percent of samples analyzed by Method EPA 314.0

[2] n-Nitrosodimethylamine was analyzed by both Methods 8270C and 8270C SIM in addition to 1625C

The method modifications primarily involved increasing the prescribed sample volume (soil mass extracted) and concentrating the resulting extract to a smaller final volume, as follows:

- Method 8082 (PCBs and PCTs) – 30 grams of sample prepared and concentrated 5 fold to a final volume of 4 milliliters (mL)
- Method 8330A/8332 (Energetics) – 5 grams of sample prepared in 20 mL of solvent
- Method 8315A (Formaldehyde) – 20 grams of sample used to prepare the leachate
- Method 8015B (TPH-EFH) – 30 grams of sample prepared and taken to a final volume of 3 mL
- Method 8015B (Alcohols) – 10 grams of sample prepared and taken to a final volume of 10 mL
- Method 8015M (Glycols) – 10 grams of sample prepared and taken to a final volume of 10 mL
- Method 8015B (Terphenyls) – 60 grams of sample prepared and extract concentrated to a final volume of 5 mL instead of 10 mL

2.5 Data Review Processes

Analytical data produced by the laboratories 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.

Upon receipt of the laboratory report (delivered via e-mail), a preliminary review of the data is performed. This review consists 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 exceedences, and blank contamination. The laboratory consults with the project chemists on these issues and receives instruction on how to proceed before reporting the sample results.
- 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.

2.6 Increased Field and Laboratory Quality Control Measures

The need for further evaluation of additional quality control items such as the frequency of equipment blank collection and evaluation of low level RLs were identified and implemented during the field sampling and laboratory analytical program. These additional measures of quality control were developed in order to address and monitor these items throughout the sampling program.

The frequency of collection for equipment blanks was changed from the original collection frequency of one per 20 parent soil samples to weekly for both surface/drainage and subsurface samples regardless of the number of soil samples collected. This change was implemented during sampling in Subarea 5D North during the week of June 20, 2011, and was initiated in order to align with the frequency of collection of equipment blanks performed under the RFI program.

2.7 Deviations from the WP/FSAP

During the field sampling and analytical programs, modifications from the procedures detailed in the WP/FSAP (CDM 2011) were required. These deviations and associated resolutions were discussed with the FTL, the project manager, and in some cases with the DTSC representative prior to implementation. These deviations are described below.

2.7.1 Field Sampling

Two deep borehole locations in Subarea 5A, three locations in Subarea 5C, four locations in Subarea 6, and three locations in Subarea 7 (a total of 12 locations as shown on Table 2-1) were sampled at one or more depths.

The MS/MSD/duplicate sample was suppose to be analyzed for all analyses as indicated in Table 2-1. Instead, the MS/MSD/duplicate sample was inadvertently collected from one of the locations (SL-187) where VOCs/1,4-dioxane were not sampled and only a subset of the secondary analytes was sampled. The MS/MSD/duplicate sample was not analyzed for cyanide or energetics (part of the secondary analyses). This missing MS/MSD/duplicate affects eight locations (SL-146, SL-147 [two depths], SL-148, SL-260, SL-261 and SL-325 [two depths]). The affect to data quality is discussed in Section 4.5.

2.7.2 Analytical Methods

As noted in Section 2.4.2, some analytical methods have been modified for this project. All modifications were discussed with DTSC representatives prior to their implementation. Review of the analytical methods and sample results indicates that the objectives for the project were addressed for all non-modified analyses. All modified analyses are undergoing further studies evaluating the effect of the modifications on precision and accuracy. The reporting limit – laboratory control sample (RL-LCS) and reporting limit-matrix spike (RL-MS) QC samples analyzed by LLI are a prime part of these studies. An independent study evaluating the precision and accuracy of the modified herbicide method has been completed (herbicides were analyzed in other subareas previously). Review of these herbicide results indicate that the method modifications did not achieve precision and accuracy goals at this lower reporting limit for some of the analytes. Data are currently under further review and it is likely that reporting limits may be elevated for some analytes.

Section 3

Area IV Deep Borehole Soil Sampling Results

Because this TM only provides a presentation of the analytical results, data in this section are presented in a summary fashion. Table 3-1 provides a summary of the deep borehole subsurface soil data. This table details the chemicals analyzed, their associated frequency of detection, the minimum and maximum detected concentrations, the range of observed detection limits and RLs, and the sample location and depth where the maximum concentration of each analyte was detected.

When screening criteria are developed to assess the presence/absence of contamination (i.e., above/below the applicable criteria) the deep borehole analytical data will be combined with RFI data to better define the nature and extent of surface soil contamination throughout Subareas 5A, 5C, 6, and 7.

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 LLI and EMAX. Appendix C presents the data usability and assessment report (DUAR), which details specific qualifications of sample results, and all validation reports. Appendix D is the master database of all sample results including the data validation "flags" (qualifiers).

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Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Deep Borehole Samples

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	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Inorganic	Nitrate	14797-55-8	8 / 12	0.902 J Z	7.98	0.750 - 0.969	1.50 - 1.94	mg/kg	SL-188-SA7	EMAX	300.0	18.5 - 19.5
Inorganic	Fluoride	16984-48-8	14 / 15	0.624 J Z	6.35	0.519 - 0.646	1.04 - 1.29	mg/kg	SL-147-SA5C	EMAX	300.0	40 - 41
Inorganic	Cyanide	57-12-5	0 / 8	-	-	0.265 - 0.323	0.530 - 0.646	mg/kg				-
Inorganic	Aluminum	7429-90-5	15 / 15	6610	17800	11.3 - 14.2	22.6 - 28.4	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Iron	7439-89-6	15 / 15	12900	34300	9.40 - 11.8	18.8 - 23.7	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Lead	7439-92-1	15 / 15	3.05	633 J Q, E	0.0940 - 0.118	0.188 - 0.237	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Lithium	7439-93-2	15 / 15	6.53	32.9	0.940 - 1.18	1.88 - 2.37	mg/kg	SL-323-SA6	EMAX	6020	23 - 24
Inorganic	Magnesium	7439-95-4	15 / 15	2540	6170	4.70 - 5.92	9.40 - 11.8	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Manganese	7439-96-5	15 / 15	167	302	0.235 - 0.296	0.470 - 0.592	mg/kg	SL-187-SA7	EMAX	6020	27.5 - 28.5
Inorganic	Mercury	7439-97-6	1 / 15	0.107 J Z	0.107 J Z	0.0511 - 0.0641	0.102 - 0.128	mg/kg	SL-325-SA6	EMAX	7471A	22 - 23
Inorganic	Molybdenum	7439-98-7	15 / 15	0.212	2.55	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-187-SA7	EMAX	6020	27.5 - 28.5
Inorganic	Nickel	7440-02-0	15 / 15	4.66	11.8	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Potassium	7440-09-7	15 / 15	1920	3820	28.2 - 35.5	56.4 - 71.1	mg/kg	SL-323-SA6	EMAX	6020	23 - 24
Inorganic	Silver	7440-22-4	1 / 15	0.0974 J Z	0.0974 J Z	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Sodium	7440-23-5	15 / 15	126	721	47.0 - 59.2	94.0 - 118	mg/kg	SL-323-SA6	EMAX	6020	23 - 24
Inorganic	Strontium	7440-24-6	15 / 15	9.42	73.5	0.235 - 0.296	0.470 - 0.592	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Thallium	7440-28-0	15 / 15	0.110 J Z	0.348	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Tin	7440-31-5	0 / 15	-	-	4.70 - 5.92	9.40 - 11.8	mg/kg				-
Inorganic	Titanium	7440-32-6	15 / 15	677	1080	0.470 - 0.592	0.940 - 1.18	mg/kg	SL-260-SA5A SL-323-SA6	EMAX	6020 6020	5.5 - 6.5 23 - 24
Inorganic	Antimony	7440-36-0	10 / 15	0.107 J Z	0.292 J Q	0.0940 - 0.118	0.188 - 0.237	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Arsenic	7440-38-2	15 / 15	2.32	14.8	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Beryllium	7440-41-7	15 / 15	0.272	0.951	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-325-SA6	EMAX	6020	26 - 27
Inorganic	Barium	7440-39-3	15 / 15	49.3	115 J Q	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Boron	7440-42-8	2 / 15	5.35 J Q, E, Z	30 J Q, E	2.35 - 2.96	4.70 - 5.92	mg/kg	SL-187-SA7	EMAX	6020	27.5 - 28.5
Inorganic	Cadmium	7440-43-9	15 / 15	0.0935 J Z	0.398	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Chromium	7440-47-3	15 / 15	8.85	23.4	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Cobalt	7440-48-4	15 / 15	2.91	15.3	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Copper	7440-50-8	15 / 15	4.47	29.6	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Vanadium	7440-62-2	15 / 15	17.4	45.9	0.0470 - 0.0592	0.0940 - 0.118	mg/kg	SL-260-SA5A	EMAX	6020	5.5 - 6.5
Inorganic	Zinc	7440-66-6	15 / 15	40.6	60.3	1.41 - 1.78	2.82 - 3.55	mg/kg	SL-147-SA5C SL-260-SA5A	EMAX	6020 6020	55 - 56 5.5 - 6.5
Inorganic	Zirconium	7440-67-7	1 / 15	10.8	10.8	2.35 - 2.96	4.70 - 5.92	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Calcium	7440-70-2	15 / 15	1900	47900 J Q	9.40 - 11.8	18.8 - 23.7	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Phosphorus	7723-14-0	15 / 15	278	529	5.64 - 7.11	11.3 - 14.2	mg/kg	SL-325-SA6	EMAX	6020	22 - 23
Inorganic	Selenium	7782-49-2	1 / 15	0.216 J Z	0.216 J Z	0.188 - 0.237	0.376 - 0.474	mg/kg	SL-188-SA7	EMAX	6020	22 - 23
Inorganic	Chromium VI	18540-29-9	0 / 15	-	-	0.519 - 0.646	1.04 - 1.29	mg/kg				-
Inorganic	Perchlorate	14797-73-0	1 / 15	42.2	42.2	10.4 - 12.9	20.8 - 25.8	ug/kg	SL-323-SA6	EMAX	314.0	23 - 24
Inorganic	Perchlorate	14797-73-0	1 / 2	3.25 J Z	3.25 J Z	2.60 - 2.78	5.19 - 5.56	ug/kg	SL-146-SA5C	EMAX	6850	47.5 - 48.5
Inorganic	Percent Moisture	MOIST	15 / 15	3.7	19.8	0.50 - 0.50	0.50 - 0.50	%	SL-325-SA6	LL	160.3M	22 - 23
Inorganic	pH	pH	15 / 15	7.97	11.55	0.1 - 0.1	0.1 - 0.1	pH unit	SL-325-SA6	EMAX	9045D	22 - 23
Misc. Organics	Ethanol	64-17-5	0 / 15	-	-	260 - 320	520 - 650	ug/kg				-
Misc. Organics	Methanol	67-56-1	1 / 15	590 J Z	590 J Z	260 - 320	520 - 650	ug/kg	SL-325-SA6	EMAX	8015B	22 - 23
Misc. Organics	2-Propanol	67-63-0	0 / 15	-	-	260 - 320	520 - 650	ug/kg				-
Misc. Organics	Ethylene Glycol	107-21-1	0 / 15	-	-	5.2 - 6.5	10 - 13	mg/kg				-
Misc. Organics	Diethylene Glycol	111-46-6	0 / 15	-	-	7.8 - 9.7	16 - 19	mg/kg				-
Misc. Organics	Propylene glycol	57-55-6	0 / 15	-	-	5.2 - 6.5	10 - 13	mg/kg				-
Misc. Organics	o-Terphenyl	84-15-1	0 / 15	-	-	1.5 - 1.9	3.6 - 4.4	mg/kg				-
Misc. Organics	m-Terphenyl	92-06-8	0 / 15	-	-	1.5 - 1.9	3.6 - 4.4	mg/kg				-
Misc. Organics	p-Terphenyl	92-94-4	0 / 15	-	-	1.5 - 1.9	3.6 - 4.4	mg/kg				-
Misc. Organics	Formaldehyde	50-00-0	6 / 12	970 J Z	7600 J S	610 - 1500	1500 - 3700	ug/kg	SL-325-SA6	LL	8315A	26 - 27
Misc. Organics	2,6-Dinitrotoluene	606-20-2	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	2,4,6-Trinitrotoluene	118-96-7	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	RDX	121-82-4	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	4-Amino-2,6-Dinitrotoluene	19406-51-0	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	HMX	2691-41-0	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	2-Amino-4,6-Dinitrotoluene	35572-78-2	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	Tetryl	479-45-8	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-

Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Deep Borehole Samples

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	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Misc. Organics	Nitroglycerin	55-63-0	0 / 8	-	-	490 - 500	990 - 1000	ug/kg				-
Misc. Organics	2,6-Diamino-4-nitrotoluene	59229-75-3	0 / 8	-	-	99 - 100	200 - 200	ug/kg				-
Misc. Organics	2,4-Diamino-6-nitrotoluene	6629-29-4	0 / 8	-	-	99 - 100	200 - 200	ug/kg				-
Misc. Organics	PETN	78-11-5	0 / 8	-	-	490 - 500	990 - 1000	ug/kg				-
Misc. Organics	2-Nitrotoluene	88-72-2	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	3-Nitrotoluene	99-08-1	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	1,3,5-Trinitrobenzene	99-35-4	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	4-Nitrotoluene	99-99-0	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	2,4-Dinitrotoluene	121-14-2	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	Nitrobenzene	98-95-3	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
Misc. Organics	m-Dinitrobenzene	99-65-0	0 / 8	-	-	50 - 50	99 - 100	ug/kg				-
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	4 / 15	0.0341 J Z	8.99	0.0202 - 0.0906	1.00 - 1.24	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1 / 15	34.5	34.5	0.0195 - 0.0676	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	OCDD	3268-87-9	9 / 15	8.29 J Z	1710	0.0151 - 0.0551	10.0 - 12.4	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	7 / 15	2.46 J Z	411	0.0158 - 0.0990	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	OCDF	39001-02-0	4 / 15	1.2 J Z	21.5	0.0181 - 0.0314	10.0 - 12.4	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1 / 15	6.11 J Z	6.11 J Z	0.0191 - 0.0680	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1 / 15	15.1	15.1	0.0193 - 0.0799	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	7 / 15	0.0323 J Z	0.306 J Z	0.0148 - 0.0364	1.00 - 1.24	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1 / 15	0.852 J Z	0.852 J Z	0.0149 - 0.0281	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1 / 15	0.492 J Z	0.492 J Z	0.00928 - 0.0207	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	0 / 15	-	-	0.00852 - 0.0213	5.00 - 6.22	ng/kg				-
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1 / 15	0.711 J Z	0.711 J Z	0.00886 - 0.0283	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	3 / 15	0.259 J Z	25.1	0.0197 - 0.0714	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1 / 15	1.11 J Z	1.11 J Z	0.0105 - 0.0269	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1 / 15	13.8	13.8	0.00737 - 0.0208	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1 / 15	0.642 J Z	0.642 J Z	0.0108 - 0.0289	5.00 - 6.22	ng/kg	SL-325-SA6	LL	1613B	22 - 23
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	0 / 15	-	-	0.0131 - 0.0309	5.00 - 6.22	ng/kg				-
PCBs and Dioxins	Aroclor 1260	11096-82-5	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 1254	11097-69-1	2 / 15	3.9	33 J #	0.90 - 6.4	1.8 - 13	ug/kg	SL-325-SA6	EMAX	8082	22 - 23
PCBs and Dioxins	Aroclor 1268	11100-14-4	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 1221	11104-28-2	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 5460	11126-42-4	2 / 15	2.5 J Z	6.4	1.8 - 13	3.5 - 25	ug/kg	SL-325-SA6	EMAX	8082	22 - 23
PCBs and Dioxins	Aroclor 1232	11141-16-5	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 5442	12642-23-8	0 / 15	-	-	1.8 - 13	3.5 - 25	ug/kg				-
PCBs and Dioxins	Aroclor 1248	12672-29-6	3 / 15	3.9	1500	0.90 - 19	1.8 - 38	ug/kg	SL-147-SA5C	EMAX	8082	55 - 56
PCBs and Dioxins	Aroclor 1016	12674-11-2	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 1262	37324-23-5	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 1242	53469-21-9	0 / 15	-	-	0.90 - 6.4	1.8 - 13	ug/kg				-
PCBs and Dioxins	Aroclor 5432	63496-31-1	0 / 15	-	-	1.8 - 13	3.5 - 25	ug/kg				-
Semivolatiles - 1625C	N-Nitrosodimethylamine	62-75-9	0 / 12	-	-	17.1 - 207	34.2 - 414	ng/kg				-
Semivolatiles - 8270 SIM	N-Nitrosodimethylamine	62-75-9	0 / 15	-	-	0.88 - 11	1.8 - 22	ug/kg				-
Semivolatiles	2,4-Dinitrotoluene	121-14-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Nitrobenzene	98-95-3	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1,4-Dichlorobenzene	106-46-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1,3-Dichlorobenzene	541-73-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Hexachlorobutadiene	87-68-3	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1,2-Dichlorobenzene	95-50-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	4-Nitroaniline	100-01-6	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	4-Nitrophenol	100-02-7	0 / 15	-	-	170 - 2200	350 - 4300	ug/kg				-
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2,4-Dimethylphenol	105-67-9	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	4-Methylphenol	106-44-5	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	4-Chloroaniline	106-47-8	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	3,5-Dimethylphenol	108-68-9	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Phenol	108-95-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-

Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Deep Borehole Samples

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	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	5 / 15	11 J FD, Z	260	8.7 - 110	17 - 220	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	Di-n-octyl phthalate	117-84-0	0 / 15	-	-	8.7 - 110	17 - 220	ug/kg				-
Semivolatiles	Hexachlorobenzene	118-74-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Anthracene	120-12-7	0 / 15	-	-	0.88 - 11	1.8 - 22	ug/kg				-
Semivolatiles	2,4-Dichlorophenol	120-83-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Pyrene	129-00-0	5 / 15	0.95 J Z	2.8	0.88 - 11	1.8 - 22	ug/kg	SL-188-SA7	EMAX	8270C SIM	18.5 - 19.5
Semivolatiles	Dimethylphthalate	131-11-3	0 / 15	-	-	8.7 - 110	17 - 220	ug/kg				-
Semivolatiles	Dibenzofuran	132-64-9	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	5 / 15	0.98 J Z	6.2 J S	0.88 - 1.1	1.8 - 2.2	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	Indeno(1,2,3-cd)pyrene	193-39-5	1 / 15	2.1 J S, Z	2.1 J S, Z	0.88 - 1.1	1.8 - 2.2	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	Benzo(b)fluoranthene	205-99-2	3 / 15	0.94 J FD, Z	2.1	0.88 - 11	1.8 - 22	ug/kg	SL-188-SA7	EMAX	8270C SIM	18.5 - 19.5
Semivolatiles	Fluoranthene	206-44-0	3 / 15	1 J Z	1.9	0.88 - 11	1.8 - 22	ug/kg	SL-188-SA7	EMAX	8270C SIM	18.5 - 19.5
Semivolatiles	Benzo(k)fluoranthene	207-08-9	2 / 15	1 J FD, Z J Z	1 J FD, Z J Z	0.88 - 11	1.8 - 22	ug/kg	SL-186-SA7 SL-188-SA7	EMAX	8270C SIM 8270C SIM	27 - 28 18.5 - 19.5
Semivolatiles	Acenaphthylene	208-96-8	0 / 15	-	-	0.88 - 11	1.8 - 22	ug/kg				-
Semivolatiles	Chrysene	218-01-9	3 / 15	1.5 J Z	11 J Z	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Benzo(a)pyrene	50-32-8	2 / 15	1.1 J Z	1.5 J Z	0.88 - 11	1.8 - 22	ug/kg	SL-188-SA7	EMAX	8270C SIM	18.5 - 19.5
Semivolatiles	2,4-Dinitrophenol	51-28-5	0 / 15	-	-	170 - 2200	350 - 4300	ug/kg				-
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	0 / 15	-	-	170 - 2200	350 - 4300	ug/kg				-
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	1 / 15	1.2 J Z	1.2 J Z	0.88 - 11	1.8 - 22	ug/kg	SL-187-SA7	EMAX	8270C SIM	27.5 - 28.5
Semivolatiles	Benzo(a)anthracene	56-55-3	4 / 15	1.4 J Z	15 J Z	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	4-Chloro-3-methylphenol	59-50-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	N-Nitroso-di-n-propylamine	621-64-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Aniline	62-53-3	0 / 15	-	-	170 - 2200	350 - 4300	ug/kg				-
Semivolatiles	Benzoic Acid	65-85-0	0 / 15	-	-	350 - 4300	690 - 8600	ug/kg				-
Semivolatiles	Hexachloroethane	67-72-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	4-Chlorophenyl phenylether	7005-72-3	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Isophorone	78-59-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Acenaphthene	83-32-9	0 / 15	-	-	0.88 - 11	1.8 - 22	ug/kg				-
Semivolatiles	Diethylphthalate	84-66-2	0 / 15	-	-	8.7 - 110	17 - 220	ug/kg				-
Semivolatiles	Di-n-Butylphthalate	84-74-2	1 / 15	16 J Z	16 J Z	8.7 - 110	17 - 220	ug/kg	SL-187-SA7	EMAX	8270C SIM	27.5 - 28.5
Semivolatiles	Phenanthrene	85-01-8	1 / 15	110	110	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	Butylbenzylphthalate	85-68-7	0 / 15	-	-	8.7 - 110	17 - 220	ug/kg				-
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Fluorene	86-73-7	0 / 15	-	-	0.88 - 11	1.8 - 22	ug/kg				-
Semivolatiles	Carbazole	86-74-8	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Pentachlorophenol	87-86-5	0 / 15	-	-	170 - 2200	350 - 4300	ug/kg				-
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2-Nitroaniline	88-74-4	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2-Nitrophenol	88-75-5	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	1-Methylnaphthalene	90-12-0	1 / 15	220	220	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	Naphthalene	91-20-3	4 / 15	0.95 J Z	4400	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	2-Methylnaphthalene	91-57-6	1 / 15	350	350	0.88 - 11	1.8 - 22	ug/kg	SL-325-SA6	EMAX	8270C SIM	22 - 23
Semivolatiles	2-Chloronaphthalene	91-58-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Benzidine	92-87-5	0 / 15	-	-	440 - 5400	860 - 11000	ug/kg				-
Semivolatiles	2-Methylphenol	95-48-7	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2-Chlorophenol	95-57-8	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	3-Nitroaniline	99-09-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	Benzyl Alcohol	100-51-6	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2,6-Dinitrotoluene	606-20-2	0 / 15	-	-	87 - 1100	170 - 2200	ug/kg				-
Semivolatiles	2-butoxy-Ethanol	111-76-2	0 / 15	-	-	170 - 2200	170 - 2200	ug/kg				-
Semivolatiles	2-phenoxy-Ethanol	122-99-6	0 / 15	-	-	170 - 2200	170 - 2200	ug/kg				-

Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Deep Borehole Samples

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	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Semivolatiles	Tetralin	119-64-2	2 / 15	170 J Z	480000	170 - 2200	170 - 2200	ug/kg	SL-325-SA6	EMAX	8270C	22 - 23
Volatiles	GRO (C5-C12)	GROC5C12	2 / 15	22	1500	0.47 - 59	0.93 - 120	mg/kg	SL-325-SA6	EMAX	8015B GRO	22 - 22
Volatiles	EFH (C12-C14)	PHCC12C14	3 / 15	0.94 J Z	9200	0.52 - 65	1.0 - 130	mg/kg	SL-325-SA6	EMAX	8015B EFH	22 - 23
Volatiles	EFH (C15-C20)	PHCC15C20	4 / 15	0.69 J Z	6800	0.52 - 65	1.0 - 130	mg/kg	SL-325-SA6	EMAX	8015B EFH	22 - 23
Volatiles	EFH (C21-C30)	PHCC21C30	11 / 15	0.94 J Z	410	0.52 - 65	1.0 - 130	mg/kg	SL-325-SA6	EMAX	8015B EFH	22 - 23
Volatiles	EFH (C30-C40)	PHCC30C40	9 / 15	1.5	130	0.52 - 65	1.0 - 130	mg/kg	SL-325-SA6	EMAX	8015B EFH	22 - 23
Volatiles	EFH (C8-C11)	PHCC8C11	9 / 15	0.54 J Z	470	0.52 - 65	1.0 - 130	mg/kg	SL-325-SA6	EMAX	8015B EFH	22 - 23
Volatiles	1,4-Dichlorobenzene	106-46-7	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,2,4-Trichlorobenzene	120-82-1	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,3-Dichlorobenzene	541-73-1	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Hexachlorobutadiene	87-68-3	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,2-Dichlorobenzene	95-50-1	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Isopropyltoluene	99-87-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Ethylbenzene	100-41-4	1 / 8	3.7 J Z	3.7 J Z	0.94 - 1.2	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	Styrene	100-42-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	cis-1,3-Dichloropropene	10061-01-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	trans-1,3-Dichloropropene	10061-02-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	N-Propylbenzene	103-65-1	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	N-Butylbenzene	104-51-8	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	4-Chlorotoluene	106-43-4	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,2-Dibromoethane	106-93-4	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,2-Dichloroethane	107-06-2	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	4-Methyl-2-pentanone	108-10-1	0 / 8	-	-	4.7 - 6.2	9.4 - 12	ug/kg				-
Volatiles	1,3,5-Trimethylbenzene	108-67-8	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Bromobenzene	108-86-1	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Toluene	108-88-3	1 / 8	2.9 J Z	2.9 J Z	0.94 - 1.2	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	Chlorobenzene	108-90-7	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	2-Chloroethyl vinyl ether	110-75-8	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,4-Dioxane	123-91-1	0 / 8	-	-	4.2 - 6.7	8.5 - 13	ug/kg				-
Volatiles	Dibromochloromethane	124-48-1	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Tetrachloroethene	127-18-4	1 / 8	5.8 J Z	5.8 J Z	0.94 - 1.2	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	sec-Butylbenzene	135-98-8	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,3-Dichloropropane	142-28-9	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	cis-1,2-Dichloroethene	156-59-2	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	trans-1,2-Dichloroethene	156-60-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Methyl tert-butyl ether	1634-04-4	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	m,p-Xylene	179601-23-1	1 / 8	3.2 J Z	3.2 J Z	1.9 - 2.5	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	Carbon tetrachloride	56-23-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,1-Dichloropropene	563-58-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	2-Hexanone	591-78-6	0 / 8	-	-	4.7 - 6.2	9.4 - 12	ug/kg				-
Volatiles	2,2-Dichloropropane	594-20-7	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,1,1,2-Tetrachloroethane	630-20-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Acetone	67-64-1	0 / 8	-	-	4.7 - 6.2	9.4 - 12	ug/kg				-
Volatiles	Chloroform	67-66-3	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Benzene	71-43-2	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,1,1-Trichloroethane	71-55-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Bromomethane	74-83-9	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Chloromethane	74-87-3	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Dibromomethane	74-95-3	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Bromochloromethane	74-97-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Chloroethane	75-00-3	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Vinyl chloride	75-01-4	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Methylene chloride	75-09-2	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Bromoform	75-25-2	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Bromodichloromethane	75-27-4	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,1-Dichloroethane	75-34-3	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,1-Dichloroethene	75-35-4	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Trichlorofluoromethane	75-69-4	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/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	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Volatiles	Dichlorodifluoromethane	75-71-8	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Freon 113a	75-88-7	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	Freon 113	76-13-1	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,2-Dichloropropane	78-87-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	2-Butanone	78-93-3	0 / 8	-	-	4.7 - 6.2	9.4 - 12	ug/kg				-
Volatiles	1,1,2-Trichloroethane	79-00-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Trichloroethene	79-01-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,1,2,2-Tetrachloroethane	79-34-5	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Chlorotrifluoroethene	79-38-9	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,2,3-Trichlorobenzene	87-61-6	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	o-Xylene	95-47-6	1 / 8	1.5 J Z	1.5 J Z	0.94 - 1.2	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	2-Chlorotoluene	95-49-8	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	1,2,4-Trimethylbenzene	95-63-6	1 / 8	3 J Z	3 J Z	0.94 - 1.2	4.7 - 6.2	ug/kg	SL-325-SA6	EMAX	8260B	22 - 22
Volatiles	1,2-Dibromo-3-chloropropane	96-12-8	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	1,2,3-Trichloropropane	96-18-4	0 / 8	-	-	1.9 - 2.5	4.7 - 6.2	ug/kg				-
Volatiles	tert-Butylbenzene	98-06-6	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-
Volatiles	Isopropylbenzene	98-82-8	0 / 8	-	-	0.94 - 1.2	4.7 - 6.2	ug/kg				-

ug/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
H - Holding times exceeded
S - Surrogates outside of criteria
C - Calibration recoveries outside of criteria
R - Calibration relative response factors outside of criteria
B - Method blank contamination
L - Laboratory control sample recoveries outside of criteria
Q - Matrix spike recoveries outside of criteria
E - Laboratory control sample and or matrix spike relative percent differences outside of criteria
I - Internal standards outside of criteria
A - Serial dilution results outside of criteria
F - Field blank contamination
FD - Field duplicate results outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limit
- Second column confirmation outside of criteria
LL - Lancaster Laboratories, Inc.
EMAX - EMAX Laboratory
Misc. - miscellaneous
SIM - selective ion monitoring
GRO - gasoline range organics
EFH - extractable fuel hydrocarbon
PETN - pentaerythritol tetranitrate
OCDD - octochlorodibenzo-p-dioxin
OCDF - octachlorodibenzofuran
TCDD - tetrachlorodibenzodioxin
HxCDD - hexachlorodibenzo-p-dioxin
HpCDD - heptachlorodibenzo-p-dioxin
PeCDD - pentachlorodibenzo-p-dioxin
TCDF - tetrachlorodibenzodioxin
HxCDF - hexachlorodibenzofuran
HpCDF - heptachlorodibenzofuran

Section 4
Data Usability Assessment

The purpose of the DUAR provided in Appendix C and summarized here is to: (1) describe the data validation procedures performed on the data sets and (2) determine whether the sample results meet the data quality objectives (DQOs) outlined in the *Master Work Plan/Field Sampling and Analysis Plan Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM 2011).

4.1 Usability Summary

For the deep borehole sample data usability assessment, 13 data sets, or SDGs were reviewed. A SDG consists of 20 or fewer samples grouped together for analyses depending on the date and time the samples were received by the laboratory. The analyses performed are discussed in Section 2.4.

Samples were collected and analyzed in accordance with the WP/FSAP (CDM 2011), and WP/FSAP Addendum (CDM Smith 2012) for the deep borehole locations with the exception of deviations during the field investigation as stated in Section 2.7.

The validated data for the deep borehole samples are usable as reported, with the exception of one SVOC result. For all the deep borehole sample data, 0.03 percent of the results were rejected. 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.

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 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 protocols (all QC parameters except calibrations and raw data).

Table 4-1 shows all SDGs that include deep borehole soil samples and those SDGs that were validated as Level III or Level IV. Some SDGs 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 Deep Borehole Soil Samples

Sample Delivery Group	Level of Validation Performed	CDM Review
Deep Borehole Samples		
12B130	Level III	
12B137	Level III	
12B145	Level III	Yes
12B146	Level IV	
12B160	Level III	
12B174	Level IV	
12B176	Level III	
12B189	Level IV	Yes
12B201	Level III	
DE293	Level III	
DE294	Level III	
DE295	Level IV	Yes
DX158	Level IV	Yes

In order to evaluate the quality of the laboratories and the validation firm, CDM Smith chemists reviewed 10 percent or more of the deep borehole sample SDGs depending on the number of SDGs and laboratories. The purpose of the review was to identify any laboratory quality control 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 WP/FSAP (CDM 2011) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method detection limits and reporting limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification of whether these 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 as a result of these deviations

The data validation review determines if the collected data are of sufficient quality (except for the rejected result) to support their intended use.

4.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities of the deep boreholes in accordance with the approved WP/FSAP (CDM 2011) and Addendum to the WP/FSAP (CDM Smith 2012). A total of 15 soil samples were collected and analyzed from 12 soil boring locations in Subareas 5A (two locations), 5C (three locations), 6 (four locations), and 7 (three locations). Table 2-1 provides a summary of the samples collected and the laboratory analyses requested.

4.5 Field Quality QA/QC

The field QC samples were collected at a frequency of one per 20 samples (5 percent) for MS/MSD/duplicates. MS/MSD/duplicate samples were collected by CDM Smith at one deep borehole sample location and analyzed by EMAX and LLI. MS/MSD/duplicate samples met the frequency requirements detailed in the WP/FSAP (CDM 2011).

As discussed in Section 2.7.1, the MS/MSD/duplicate collected was not analyzed for all methods identified in Table 2-1 for eight sample locations. The cyanide, VOCs, 1,4-dioxane and explosives results for the eight samples without an MS/MSD/duplicate were all nondetect except for one sample that had six detected VOC analytes. These VOC analyte results were between the MDL and RL. The precision and accuracy for these methods that were not analyzed could not be evaluated by the MS/MSD/duplicate but LCSs and surrogates were analyzed for all the methods and all results were within control limits. These quality control parameters do indicate acceptable precision and accuracy with controlled laboratory standards.

A review of all cyanide results (both detects and nondetects) analyzed by EMAX (the laboratory that performed the cyanide analysis for the deep borehole samples) for the remaining Phase 1 data was also performed and all LCSs, MS/MSDs and laboratory duplicate results were within control limits. The acceptable recovery of the surrogate compounds from the VOCs, 1,4-dioxane and explosives analyses, and the other acceptable Phase 1 program wide MS/MSDs for cyanide, indicate that there is no significant matrix interference with these analyses. The precision and accuracy evaluation based on MS/MSD/duplicates was not performed for the eight deep borehole samples identified previously, but based on other QC the data is still considered usable for project purposes.

As discussed in Section 2.3.2, two equipment rinsate blank samples were collected during each of the two weeks the deep borehole samples were collected. A field blank sample was not collected during these sampling activities as no new batch of ASTM water was used. Any data validation qualifications associated with the field blank ASTM decontamination water associated with the deep borehole sampling activities have been applied to the samples accordingly. The equipment rinsate blank results are presented in Appendix C and a summary of the detected results is presented in Table 4-2.

Eight trip blank samples were shipped with the deep borehole soil samples. The results for these samples are presented in Appendix C and a summary of the detected results is presented in Table 4-3. Data qualifications based on 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.

Table 4-2 Equipment Blanks for Deep Borehole Samples – Detected Results Only

EB01-SA5C-SB-021512 EB-SA5C 02/15/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Formaldehyde	µg/L	10/50	J
GRO (C5-C12)	µg/L	15/50	J
EB-SA7-SB-022212 EB-SA7 02/22/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2,3,7,8-TCDD	pg/L	0.231/2.03	J
N-Nitrosodimethylamine	ng/L	0.918/1.01	J

Notes:
RL = Reporting Limit
µg/L = microgram per liter
pg/L = picogram per liter
ng/L = nanogram per liter
TCDD = tetrachlorodibenzodioxin
GRO = gasoline range organics

Table 4-3 Trip Blanks for Deep Borehole Soil Samples – Detected Results Only

TB-021312 02/13/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	30/50	J
TB-021412 02/14/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	18/50	J
TB-021512 02/15/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	31/50	J
TB-021612 02/16/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	31/50	J
TB-021712 02/17/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	41/50	J
TB-022012 02/20/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	49/50	J

Table 4-3 Trip Blanks for Deep Borehole Soil Samples – Detected Results Only (Cont'd)

TB-022212 02/22/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
GRO (C5-C12)	µg/L	23/50	J

Notes:
RL = Reporting Limit
µg/L = microgram per liter
GRO = gasoline range organics

Temperature blanks were to be included with each shipment of samples. Based on validation results, all temperature blanks for deep borehole samples met criteria. 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, 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. One result for the deep borehole samples (0.03 percent of all the analytes) was rejected as discussed in Section 4.7 and in Appendix C.

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 to each other, 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.

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

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 (2 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 an 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 deep borehole sample data set, 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 WP/FSAP (CDM 2011) 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.

The following deep borehole individual analyte results were qualified as estimated "J/UJ" based on precision criteria:

- Some of the metal analyte results due to laboratory precision criteria
- One PCB/PCT analyte result as the RPD result between the two columns was outside of criteria

Field duplicate precision criteria required the qualification of some results for dioxins, NDMA, TPH, and SVOCs for deep borehole samples. The parent sample and field duplicate sample results were

qualified as estimated "J/UJ" based on 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 discernable pattern or reason for the laboratory and field duplicate sample RPD exceedances identified. 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:

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

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. 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 deep borehole soil data, accuracy was evaluated by reviewing the %R values 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) interference standards, serial dilution results, and reviewing method blanks, calibration blanks, equipment rinsate blanks, 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. No qualifiers were applied to applicable sample results based on the accuracy results of the RL-LCS and RL-MS samples. These QC samples are intended to evaluate the effects of the method modifications on the RLs program wide. A statistically robust population of RL-LCS and RL-MS samples has not yet been achieved. When enough data has been collected, decisions regarding the accuracy and precision of these RLs will be addressed by all parties, including possible changes to the RLs.

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

- Some of the results for metals, hexavalent chromium and SVOCs due to MSs

- Some of the results for SVOCs and formaldehyde due to surrogates
- Some of the NDMA results due to holding times

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

- One SVOC result (benzoic acid) based on MS

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 except for those discussed above and in the DUAR and laboratory validation reports in Appendix C.

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 2.34. 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 the deep borehole samples, some dioxins and TPH-EFH results were qualified as non-detect due to laboratory blank contamination criteria. The percentage of results qualified as non-detect based on laboratory blank contamination was 76 percent for the dioxins and 6.6 percent for the TPH-EFH results. These results were qualified as non-detect "U" due to laboratory blank contamination.

For the dioxins, estimated detection limits (EDLs) are calculated for each sample. The EDLs 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" values because they are below the RL. Many of these estimated values have been subsequently qualified as non-detect "U" because the compound was detected in related laboratory blanks. The laboratory blank results correlate to the sample EDLs and 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 were well below site-related action

levels. Therefore, the resulting qualification of associated sample results as not detected or "U" qualified data do not falsely diminish identification of site-related contaminants.

The TPH-EFH reported analytes that had blank qualifications greater than 5 percent do not indicate a laboratory blank contamination problem as the overall sample counts for those analytes were low. For example, there were only 90 TPH-EFH samples analyzed for deep borehole samples and out of those samples 6 results were qualified due to blank contamination.

Tables 4-2 and 4-3 provide a summary of analytes observed in equipment and trip blank samples, respectively. All of the compounds detected in equipment blanks and trip blanks were below the RLs but above the MDLs. The ASTM Type II water used to generate the equipment and trip blanks was previously analyzed as a field blank on November 1, 2011. This field blank (source water) had detects of ethylbenzene, toluene, m,p-xylene, chloroform and o-xylene (above the RL) indicating inherent low level contamination in the source water used. ASTM 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 ASTM Type II field blanks for all Phase 1 sampling showed one detect of heptachlor, three detects of naphthalene, and one detect of RDX above their respective RL. One field blank had detects above the RLs for four metal analytes and one field blank had detects above the RLs for a variety of VOC analytes. ASTM Type II water field blanks will continue to be reviewed to monitor for detected concentrations of analytes throughout the sampling program. The associated sample results were qualified accordingly during the validation process.

A review of all Phase 1 equipment blanks was also performed. In general, a variety of analytes were detected above their respective RLs. The most frequently detected analytes were naphthalene, NDMA and RDX. Naphthalene was detected in 28 percent of the equipment blanks, NDMA in 27 percent of the equipment blanks and RDX in 26 percent of the equipment blanks. Other analytes were detected in the equipment blanks with methylene chloride being detected in eight percent of the equipment blanks. All other analytes were detected in less than five percent of the equipment blank samples.

Further review of the equipment blanks is being conducted and all Phase 3 equipment blanks collected to-date are being evaluated to determine if these low level detections are consistent indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected. Associated sample results were qualified for field blank contamination during data validation. No sample results were rejected due to detected concentrations in field blanks or laboratory blanks.

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 WP/FSAP 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 were established 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 WP/FSAP (CDM 2011) 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 WP/FSAP 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 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 LLI. 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 to 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 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. An analyte result 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.

RLs for the modified methods identified in Table 2-2 are evaluated through the analysis of RL-LCS and RL-MS samples created by LLI. The evaluation of these QC samples is ongoing throughout all subareas of Area IV and recommendations regarding program-wide sample qualification based on the RL-LCS and RL-MS QC results have not been finalized. Qualification of individual sample results for deep borehole samples was not performed, based on the current RL-LCS and RL-MS QC sample results.

Qualifiers were applied to applicable sample results by the laboratory and identified during data validation 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 deep borehole samples analyzed, results for some of the analytes were qualified as estimated due to RL criteria except for NDMA, perchlorate, hexavalent chromium, TPH-GRO, glycols, VOC SIM, energetics, and cyanide.

In general, for the data validated in this TM, RLs for the sample results were low enough to compare to the RLs stated in the WP/FSAP (CDM 2011). The RLs for this project are lower than "normal" environmental data analyses for some classes of compounds. Some analytical laboratory methods were modified in order to achieve the lowest practicable RLs in an attempt to comply with the AOC. All modified analyses are undergoing further studies evaluating the effect of the modifications on precision and accuracy. Data are currently under further review and it is likely that reporting limits may be elevated for some analytes. These results are still considered usable for project decisions.

4.8 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.

4.9 Data Completeness

Completeness of the data collection program is defined as the percentage of samples planned for collection as listed in the WP/FSAP (CDM 2011) 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.

$$\%\text{Completeness} = C_x \frac{100}{n}$$

Where:

C = actual number of locations sampled
n = total number of locations planned

Equation B.

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

Where:

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

The overall completeness goal, as defined in the WP/FSAP (CDM 2011), for this sampling event is 90 percent for each analytical test for all project data.

A total of 15 deep borehole soil samples including the field duplicates were collected and analyzed. As discussed in Section 2.7, all locations were sampled as planned.

As discussed in Section 2.7, the sampling deviations do not impact completeness objectives for this sampling program. One hundred percent of the sample locations identified in the WP/FSAP Addendums for deep borehole samples were sampled meeting the completeness goal for the number of locations sampled versus number of locations planned to be sampled.

The completeness goal achieved for acceptable data was 99.97 percent of the number of measurements judged to be valid versus the total number of measurements made for all deep borehole soil samples analyzed. Table 4-4 summarizes all results that were estimated or rejected.

The following deep borehole sample result was rejected per analyses:

- Method 8270C
  - One out of 750 individual SVOC analyte results (0.133 percent)

Table 4-4 Summary of Data Completeness Following Data Validation – Deep Borehole Soil Samples

	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	17	26		202	10	255	100
NDMA				6	6	12	100
Fluoride, Nitrate	17	5		17		39	100
Perchlorate-314	1			14		15	100
Metals - 6020	322	53		69	6	450	100
Perchlorate - 6850		1		1		2	100
Hexavalent Chromium				14	1	15	100
Mercury		1		14		15	100
Alcohols		1		44		45	100
Terphenyls				45		45	100
Total Petroleum Hydrocarbons – Extractable Fuel Hydrocarbons	37	13		39	1	90	100
Total Petroleum Hydrocarbons – Gasoline Range Organics	2			13		15	100
Total Petroleum Hydrocarbons - Glycols				45		45	100
PCBs/PCTs	5	2		173		180	100
Volatiles		6		530		536	100
Volatiles SIM				8		8	100
Semivolatiles	1	1	1	747		750	99.86
Semivolatiles SIM	13	29		333		375	100
Formaldehyde	1	5		2	4	12	100
Energetics				144		144	100
Cyanide				8		8	100
Completeness Total for All Deep Borehole Samples Collected and Judged Valid							**99.97**

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met.

Sampling deviations from procedures described in the WP/FSAP (CDM 2011) 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 WP/FSAP (CDM 2011) met appropriate criteria. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated on which to base project decisions.

The MS/MSD/duplicate methods that were inadvertently not analyzed for could not be evaluated for precision and accuracy. Other laboratory QC for these samples and methods were evaluated and were acceptable indicating the data for these eight samples is usable for project decisions.

4.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 99 percent of the data validated for deep borehole samples, and reported in this TM, are suitable for their intended use for site characterization. The one rejected sample result is 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 laboratory in their subcontract agreement with CDM Smith.

Sample results that were qualified as estimated are usable for project decisions. Numerous dioxin results were qualified as estimated and/or non-detect due to the low detection limits. This data is considered usable.

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 locations sampled, and the number of sample results acceptable for use provides sufficient quality data to support project decisions.

Section 5
References

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Appendix A
Analytical Results Tables

Appendix A1
Analytical Method, CAS Number and Chemical Name
Deep Borehole Samples

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	
6010B	7440-09-7	Potassium	
6020	7440-22-4	Silver	
6010B	7440-23-5	Sodium	
6010B	7440-24-6	Strontium	
6020	7440-28-0	Thallium	
6010B	7440-31-5	Tin	
6010B	7440-32-6	Titanium	
6020	7440-36-0	Antimony	
6020	7440-38-2	Arsenic	
6020	7440-41-7	Beryllium	
6020	7440-39-3	Barium	
6010B	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	
6010B	7440-67-7	Zirconium	
6010B	7440-70-2	Calcium	
6010B	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	
8315M	60-34-4	Methylhydrazine	
8315M	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	
8330A	6629-29-4	2,4-Diamino-6-nitrotoluene	

Appendix A1
Analytical Method, CAS Number and Chemical Name
Deep Borehole Samples

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	
8082	11126-42-4	Aroclor 5460	
8082	11141-16-5	Aroclor 1232	
8082	12642-23-8	Aroclor 5442	

Appendix A1
Analytical Method, CAS Number and Chemical Name
Deep Borehole Samples

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	
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	

Appendix A1
Analytical Method, CAS Number and Chemical Name
Deep Borehole Samples

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	
8015M	GROC5C12	Gasoline Range Organices (C5-C12)	GRO (C5-C12)
8015M	PHCC15C20	Extractable Fuel Hydrocarbons (C15-C20)	EFH (C15-C20)
8015M	PHCC21C30	Extractable Fuel Hydrocarbons (C21-C30)	EFH (C21-C30)
8015M	PHCC30C40	Extractable Fuel Hydrocarbons (C30-C40)	EFH (C30-C40)
8015M	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	
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	

Appendix A1
Analytical Method, CAS Number and Chemical Name
Deep Borehole Samples

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	

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. These samples are also sample splits of one sample location.

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.

Sample Name		SL-147-SA5C-SB-40.5	SL-146-SA5C-SB-47.5-48.5	SL-146-SA5C-SB-48.0	SL-147-SA5C-SB-40.0-41.0	SL-147-SA5C-SB-55.0-56.0	SL-147-SA5C-SB-55.5	SL-148-SA5C-SB-40.0-41.0	SL-148-SA5C-SB-40.5	SL-186-SA7-SB-27.0-28.0	SL-186-SA7-SB-27.5	SL-187-SA7-SB-27.5-28.5
Sample Date		02/15/2012	02/13/2012	02/13/2012	02/15/2012	02/15/2012	02/15/2012	02/14/2012	02/14/2012	02/21/2012	02/21/2012	02/22/2012
SDG		12B146	12B130	12B130	12B146	12B146	12B146	12B137	12B137	12B189	12B189	12B201
Start Depth		40.5	47.5	48	40	55	55.5	40	40.5	27	27.5	27.5
End Depth		40.5	48.5	48	41	56	55.5	41	40.5	28	27.5	28.5
Chemical Name	Unit											
GRO (C5-C12)	mg/kg	1.0 U	--	0.94 U	--	--	0.97 U	--	0.96 U	--	0.98 U	--
EFH (C12-C14)	mg/kg	--	1.1 U	--	1.1 U	1.1 U	--	1.1 U	--	1.1 U	--	5.3 U
EFH (C15-C20)	mg/kg	--	1.1 U	--	1.1 U	1.1 U	--	0.69 J Z	--	1.1 U	--	5.3 U
EFH (C21-C30)	mg/kg	--	4.1	--	4.0	15	--	19	--	1.1 UJ FD	--	83
EFH (C30-C40)	mg/kg	--	4.1	--	5.3	19	--	22	--	1.1 U	--	110
EFH (C8-C11)	mg/kg	--	1.1 U B	--	1.1 U B	1.1 U B	--	1.1 U B	--	0.65 J Z	--	3.2 J Z
1,4-Dichlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2,4-Trichlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,3-Dichlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Hexachlorobutadiene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2-Dichlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Isopropyltoluene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Ethylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Styrene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
cis-1,3-Dichloropropene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
trans-1,3-Dichloropropene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
N-Propylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
N-Butylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
4-Chlorotoluene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2-Dibromoethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2-Dichloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
4-Methyl-2-Pentanone	ug/kg	9.8 U	--	9.4 U	--	--	9.8 U	--	9.7 U	--	--	--
1,3,5-Trimethylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Bromobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Toluene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Chlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
2-Chloroethyl Vinyl Ether	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,4-Dioxane	ug/kg	9.5 U	--	8.5 U	--	--	11 U	--	9.4 U	--	--	--
Dibromochloromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Tetrachloroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
sec-Butylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,3-Dichloropropane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
cis-1,2-Dichloroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
trans-1,2-Dichloroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Methyl tert-Butyl Ether	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
m,p-Xylene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Carbon tetrachloride	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1-Dichloropropene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
2-Hexanone	ug/kg	9.8 U	--	9.4 U	--	--	9.8 U	--	9.7 U	--	--	--
2,2-Dichloropropane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1,1,2-Tetrachloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Acetone	ug/kg	9.8 U	--	9.4 U	--	--	9.8 U	--	9.7 U	--	--	--
Chloroform	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Benzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1,1-Trichloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Bromomethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Chloromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Dibromomethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Bromochloromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Chloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Vinyl Chloride	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Methylene chloride	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Bromoform	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Bromodichloromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1-Dichloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1-Dichloroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Trichlorofluoromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Dichlorodifluoromethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Freon 113a	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Freon 113	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2-Dichloropropane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
2-Butanone	ug/kg	9.8 U	--	9.4 U	--	--	9.8 U	--	9.7 U	--	--	--
1,1,2-Trichloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Trichloroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Chlorotrifluoroethene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2,3-Trichlorobenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
o-Xylene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
2-Chlorotoluene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2,4-Trimethylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2-Dibromo-3-chloropropane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
1,2,3-Trichloropropane	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
tert-Butylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--
Isopropylbenzene	ug/kg	4.9 U	--	4.7 U	--	--	4.9 U	--	4.9 U	--	--	--

U - Compound not detected above the reporting limit
J - Result is an estimated value
R - Result is rejected

Appendix A6
Volatiles - Validated Data
Deep Borehole Samples

Sample Name		SL-187-SA7-SB-28.0	SL-188-SA7-SB-18.5-19.5	SL-188-SA7-SB-19.0	SL-188-SA7-SB-22.0-23.0	SL-188-SA7-SB-22.5	SL-260-SA5A-SB-5.5-6.5	SL-260-SA5A-SB-6.0	SL-261-SA5A-SB-8.5-9.5	SL-261-SA5A-SB-9.0	SL-323-SA6-SB-23.0-24.0	SL-323-SA6-SB-23.5	SL-324-SA6-SB-25.0-26.0
Sample Date		02/22/2012	02/21/2012	02/21/2012	02/21/2012	02/21/2012	02/16/2012	02/16/2012	02/15/2012	02/15/2012	02/20/2012	02/20/2012	02/16/2012
SDG		12B201	12B189	12B189	12B189	12B189	12B160	12B160	12B146	12B146	12B176	12B176	12B160
Start Depth		28	18.5	19	22	22.5	5.5	6	8.5	9	23	23.5	25
End Depth		28	19.5	19	23	22.5	6.5	6	9.5	9	24	23.5	26
Chemical Name	Unit												
GRO (C5-C12)	mg/kg	1.0 U	--	0.93 U	--	1.0 U	--	1.0 U	--	1.0 U	--	1.0 U	--
EFH (C12-C14)	mg/kg	--	1.1 U	--	1.0 U	--	1.1 U	--	1.1 U	--	1.1 U	--	1.1 U
EFH (C15-C20)	mg/kg	--	1.1 U	--	1.0 U	--	1.1 U	--	1.1 U	--	1.1 U	--	1.1 U
EFH (C21-C30)	mg/kg	--	7.1	--	0.94 J Z	--	1.1 U	--	1.1 U	--	2.3	--	1.1 U
EFH (C30-C40)	mg/kg	--	15	--	1.0 U	--	1.1 U	--	1.1 U	--	1.5	--	1.1 U
EFH (C8-C11)	mg/kg	--	0.54 J Z	--	0.66 J Z	--	0.63 J Z	--	1.1 U B	--	1.1 U	--	0.63 J Z
1,4-Dichlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,3-Dichlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Hexachlorobutadiene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2-Dichlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Isopropyltoluene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Ethylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Styrene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
N-Propylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
N-Butylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
4-Chlorotoluene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2-Dibromoethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2-Dichloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
4-Methyl-2-Pentanone	ug/kg	--	--	--	--	--	--	10 U	--	9.7 U	--	--	--
1,3,5-Trimethylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Bromobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Toluene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Chlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
2-Chloroethyl Vinyl Ether	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,4-Dioxane	ug/kg	--	--	--	--	--	--	9.8 U	--	9.9 U	--	--	--
Dibromochloromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Tetrachloroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
sec-Butylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,3-Dichloropropane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
trans-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Methyl tert-Butyl Ether	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
m,p-Xylene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Carbon tetrachloride	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1-Dichloropropene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
2-Hexanone	ug/kg	--	--	--	--	--	--	10 U	--	9.7 U	--	--	--
2,2-Dichloropropane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1,1,2-Tetrachloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Acetone	ug/kg	--	--	--	--	--	--	10 U	--	9.7 U	--	--	--
Chloroform	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Benzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1,1-Trichloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Bromomethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Chloromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Dibromomethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Bromochloromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Chloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Vinyl Chloride	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Methylene chloride	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Bromoform	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Bromodichloromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1-Dichloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1-Dichloroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Trichlorofluoromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Dichlorodifluoromethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Freon 113a	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Freon 113	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2-Dichloropropane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
2-Butanone	ug/kg	--	--	--	--	--	--	10 U	--	9.7 U	--	--	--
1,1,2-Trichloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Trichloroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Chlorotrifluoroethene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2,3-Trichlorobenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
o-Xylene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
2-Chlorotoluene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2,4-Trimethylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2-Dibromo-3-chloropropane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
1,2,3-Trichloropropane	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
tert-Butylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--
Isopropylbenzene	ug/kg	--	--	--	--	--	--	5.2 U	--	4.9 U	--	--	--

U - Compound not detected above the reporting limit
J - Result is an estimated value
R - Result is rejected

Sample Name		SL-324-SA6-SB-25.5	SL-325-SA6-SB-22.0	SL-325-SA6-SB-22.5-23.5	SL-325-SA6-SB-26.0-27.0	SL-325-SA6-SB-26.5	SL-326-SA6-SB-23.0-24.0	SL-326-SA6-SB-23.5
Sample Date		02/16/2012	02/17/2012	02/17/2012	02/17/2012	02/17/2012	02/17/2012	02/16/2012
SDG		12B160	12B174	12B174	12B174	12B174	12B174	12B174
Start Depth		25.5	22	22	26	26.5	23	23.5
End Depth		25.5	22	23	27	26.5	24	23.5
Chemical Name	Unit							
GRO (C5-C12)	mg/kg	1.0 U	1500	--	--	22	--	0.97 U
EFH (C12-C14)	mg/kg	--	--	9200	180	--	0.94 J Z	--
EFH (C15-C20)	mg/kg	--	--	6800	220	--	2.9	--
EFH (C21-C30)	mg/kg	--	--	410	7.2	--	14	--
EFH (C30-C40)	mg/kg	--	--	130	5.5 U	--	7.0	--
EFH (C8-C11)	mg/kg	--	--	470	3.1 J Z	--	2.2	--
1,4-Dichlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2,4-Trichlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,3-Dichlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Hexachlorobutadiene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2-Dichlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Isopropyltoluene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Ethylbenzene	ug/kg	--	3.7 J Z	--	--	5.1 U	--	--
Styrene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
cis-1,3-Dichloropropene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
trans-1,3-Dichloropropene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
N-Propylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
N-Butylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
4-Chlorotoluene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2-Dibromoethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2-Dichloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
4-Methyl-2-Pentanone	ug/kg	--	12 U	--	--	10 U	--	--
1,3,5-Trimethylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Bromobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Toluene	ug/kg	--	2.9 J Z	--	--	5.1 U	--	--
Chlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
2-Chloroethyl Vinyl Ether	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,4-Dioxane	ug/kg	--	13 U	--	--	10 U	--	--
Dibromochloromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Tetrachloroethene	ug/kg	--	5.8 J Z	--	--	5.1 U	--	--
sec-Butylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,3-Dichloropropane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
cis-1,2-Dichloroethene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
trans-1,2-Dichloroethene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Methyl tert-Butyl Ether	ug/kg	--	6.2 U	--	--	5.1 U	--	--
m,p-Xylene	ug/kg	--	3.2 J Z	--	--	5.1 U	--	--
Carbon tetrachloride	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1-Dichloropropene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
2-Hexanone	ug/kg	--	12 U	--	--	10 U	--	--
2,2-Dichloropropane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1,1,2-Tetrachloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Acetone	ug/kg	--	12 U	--	--	10 U	--	--
Chloroform	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Benzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1,1-Trichloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Bromomethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Chloromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Dibromomethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Bromochloromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Chloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Vinyl Chloride	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Methylene chloride	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Bromoform	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Bromodichloromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1-Dichloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1-Dichloroethene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Trichlorofluoromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Dichlorodifluoromethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Freon 113a	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Freon 113	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2-Dichloropropane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
2-Butanone	ug/kg	--	12 U	--	--	10 U	--	--
1,1,2-Trichloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Trichloroethene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Chlorotrifluoroethene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2,3-Trichlorobenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
o-Xylene	ug/kg	--	1.5 J Z	--	--	5.1 U	--	--
2-Chlorotoluene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2,4-Trimethylbenzene	ug/kg	--	3.0 J Z	--	--	5.1 U	--	--
1,2-Dibromo-3-chloropropane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
1,2,3-Trichloropropane	ug/kg	--	6.2 U	--	--	5.1 U	--	--
tert-Butylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--
Isopropylbenzene	ug/kg	--	6.2 U	--	--	5.1 U	--	--

U - Compound not detected above the reporting limit
J - Result is an estimated value
R - Result is rejected

Appendix B
Laboratory Reports
(On CD)

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/15/12 16:10
Sample ID: TB-021312	Date Analyzed: 02/15/12 16:10
Lab Samp ID: B130-03	Dilution Factor: 1
Lab File ID: RBV206	Matrix : WATER
Ext Btch ID: VO01B10	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.89	10.00	88.9	80-120
4-BROMOFLUOROBENZENE	11.2	10.00	112	86-115
TOLUENE-D8	10.7	10.00	107	88-110
DIBROMOFLUOROMETHANE	9.77	10.00	97.7	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B130	Date Extracted: 02/15/12 15:41
Sample ID: MBLK1W	Date Analyzed: 02/15/12 15:41
Lab Samp ID: VO01B10B	Dilution Factor: 1
Lab File ID: RBV205	Matrix : WATER
Ext Btch ID: VO01B10	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	80-120
4-BROMOFLUOROBENZENE	10.9	10.00	109	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	10.1	10.00	101	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01B10B	VO01B10L	VO01B10C		
LAB FILE ID:	RBV205	RBV202	RBV203		
DATE EXTRACTED:	02/15/1215:41	02/15/1214:15	02/15/1214:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/15/1215:41	02/15/1214:15	02/15/1214:45	DATE RECEIVED:	02/15/12
PREP. BATCH:	VO01B10	VO01B10	VO01B10		
CALIB. REF:	RJV602	RJV602	RJV602		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	9.04	90	10.0	10.2	102	12	70-130	30
1,1,1-Trichloroethane	ND	10.0	8.88	89	10.0	9.88	99	11	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.1	101	10.0	11.2	112	10	70-130	30
1,1,2-Trichloroethane	ND	10.0	8.80	88	10.0	10.2	102	15	70-130	30
1,1-Dichloroethane	ND	10.0	8.66	87	10.0	9.69	97	11	70-130	30
1,1-Dichloroethene	ND	10.0	7.26	73	10.0	8.10	81	11	60-130	30
1,1-Dichloropropene	ND	10.0	8.65	87	10.0	9.93	99	14	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	7.32	73	10.0	9.00	90	21	60-130	30
1,2,3-Trichloropropane	ND	10.0	9.64	96	10.0	10.8	108	12	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	6.87	69	10.0	8.40	84	20	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	9.35	94	10.0	10.5	105	11	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.31	83	10.0	9.55	96	14	60-130	30
1,2-Dichlorobenzene	ND	10.0	9.14	91	10.0	10.3	103	12	70-130	30
1,2-Dichloroethane	ND	10.0	8.09	81	10.0	9.02	90	11	70-130	30
1,2-Dichloropropane	ND	10.0	9.15	91	10.0	10.1	101	10	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	8.61	86	10.0	10.1	101	16	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	9.68	97	10.0	10.7	107	10	70-130	30
1,3-Dichlorobenzene	ND	10.0	9.43	94	10.0	10.6	106	12	70-130	30
1,3-Dichloropropane	ND	10.0	8.75	87	10.0	10.2	102	15	70-130	30
1,4-Dichlorobenzene	ND	10.0	9.07	91	10.0	10.3	103	13	70-130	30
2,2-Dichloropropane	ND	10.0	9.36	94	10.0	10.3	103	10	50-140	30
2-Chlorotoluene	ND	10.0	9.75	97	10.0	10.6	106	8	70-130	30
4-Chlorotoluene	ND	10.0	9.48	95	10.0	10.5	105	11	70-130	30
Benzene	ND	10.0	8.76	88	10.0	9.77	98	11	70-130	30
Bromobenzene	ND	10.0	9.81	98	10.0	10.7	107	8	70-130	30
Bromochloromethane	ND	10.0	8.19	82	10.0	9.48	95	15	70-130	30
Bromodichloromethane	ND	10.0	8.49	85	10.0	9.59	96	12	70-130	30
Bromoform	ND	10.0	10.2	102	10.0	11.3	113	11	60-140	30
Bromomethane	ND	10.0	9.31	93	10.0	9.87	99	6	50-140	30
Carbon Tetrachloride	ND	10.0	8.98	90	10.0	9.81	98	9	70-130	30
Chlorobenzene	ND	10.0	8.79	88	10.0	9.99	100	13	70-120	30
Chloroethane	ND	10.0	9.21	92	10.0	10.1	101	9	70-140	30
Chloroform	ND	10.0	8.46	85	10.0	9.53	95	12	70-130	30
Chloromethane	ND	10.0	9.50	95	10.0	10.4	104	9	60-130	30
cis-1,2-Dichloroethene	ND	10.0	8.60	86	10.0	9.80	98	13	70-130	30
cis-1,3-Dichloropropene	ND	10.0	8.90	89	10.0	10.0	100	12	70-130	30
Dibromochloromethane	ND	10.0	8.92	89	10.0	10.5	105	16	70-130	30
Dibromomethane	ND	10.0	8.48	85	10.0	9.80	98	14	70-140	30
Dichlorodifluoromethane	ND	10.0	8.47	85	10.0	10.3	103	19	50-140	30
Ethylbenzene	ND	10.0	8.80	88	10.0	9.97	100	12	70-130	30
Hexachlorobutadiene	ND	10.0	8.11	81	10.0	9.44	94	15	60-140	30
Isopropyl Benzene	ND	10.0	10.3	103	10.0	11.0	110	6	70-150	30
m,p-Xylene	ND	20.0	16.9	84	20.0	19.2	96	13	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	8.12	81	10.0	9.62	96	17	70-140	30
Methylene Chloride	ND	10.0	8.00	80	10.0	9.17	92	14	70-130	30
n-Butylbenzene	ND	10.0	8.95	90	10.0	10.3	103	14	60-130	30
n-Propylbenzene	ND	10.0	9.88	99	10.0	10.8	108	8	70-140	30
o-Xylene	ND	10.0	8.57	86	10.0	9.66	97	12	70-130	30

p-Isopropyltoluene	ND	10.0	9.80	98	10.0	11.0	110	11	70-140	30
Sec-Butylbenzene	ND	10.0	9.95	99	10.0	11.2	112	12	70-130	30
Styrene	ND	10.0	9.25	93	10.0	10.6	106	13	70-130	30
Tert-Butylbenzene	ND	10.0	10.4	104	10.0	11.4	114	9	70-130	30
Tetrachloroethene	ND	10.0	8.43	84	10.0	9.83	98	15	70-130	30
Toluene	ND	10.0	8.90	89	10.0	9.94	99	11	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	7.82	78	10.0	8.80	88	12	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	8.68	87	10.0	9.97	100	14	70-140	30
Trichloroethene	ND	10.0	8.75	87	10.0	9.87	99	12	70-130	30
Trichlorofluoromethane	ND	10.0	9.38	94	10.0	10.8	108	14	70-140	30
Vinyl Chloride	ND	10.0	8.64	86	10.0	9.49	95	9	60-150	30
Acetone	ND	50.0	39.5	79	50.0	44.1	88	11	50-150	30
2-Butanone (MEK)	ND	50.0	44.3	89	50.0	50.0	100	12	60-140	30
2-Hexanone	ND	50.0	44.0	88	50.0	50.4	101	14	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	46.0	92	50.0	51.2	102	11	60-140	30
Freon113	ND	10.0	7.93	79	10.0	9.10	91	14	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	7.39	74	10.0	8.64	86	16	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	11.0	110	10.0	9.83	98	11	50-150	30
Chlorotrifluoroethylene	ND	10.0	9.36	94	10.0	8.11	81	14	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.50	85	10.0	8.99	90	80-120
4-Bromofluorobenzene	10.0	10.8	108	10.0	10.4	104	86-115
Toluene-d8	10.0	10.2	102	10.0	10.1	101	88-110
Dibromofluoromethane	10.0	9.58	96	10.0	9.93	99	86-118

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/14/12 15:51
Sample ID: SL-146-SA5C-SB-48.0	Date Analyzed: 02/14/12 15:51
Lab Samp ID: B130-01	Dilution Factor: 0.84
Lab File ID: RBB246	Matrix : SOIL
Ext Btch ID: VO03B16	% Moisture : 10.4
Calib. Ref.: RLB208	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	4.7	0.94
1,1,1-TRICHLOROETHANE	ND	4.7	0.94
1,1,2,2-TETRACHLOROETHANE	ND	4.7	0.94
1,1,2-TRICHLOROETHANE	ND	4.7	0.94
1,1-DICHLOROETHANE	ND	4.7	0.94
1,1-DICHLOROETHENE	ND	4.7	0.94
1,1-DICHLOROPROPENE	ND	4.7	0.94
1,2,3-TRICHLOROBENZENE	ND	4.7	1.9
1,2,3-TRICHLOROPROPANE	ND	4.7	1.9
1,2,4-TRICHLOROBENZENE	ND	4.7	1.9
1,2,4-TRIMETHYLBENZENE	ND	4.7	0.94
1,2-DIBROMO-3-CHLOROPROPANE	ND	4.7	1.9
1,2-DICHLOROBENZENE	ND	4.7	0.94
1,2-DICHLOROETHANE	ND	4.7	0.94
1,2-DICHLOROPROPANE	ND	4.7	0.94
1,2-DIBROMOETHANE (EDB)	ND	4.7	0.94
1,3,5-TRIMETHYLBENZENE	ND	4.7	0.94
1,3-DICHLOROBENZENE	ND	4.7	0.94
1,3-DICHLOROPROPANE	ND	4.7	0.94
1,4-DICHLOROBENZENE	ND	4.7	0.94
2,2-DICHLOROPROPANE	ND	4.7	1.9
2-CHLOROTOLUENE	ND	4.7	0.94
4-CHLOROTOLUENE	ND	4.7	0.94
BENZENE	ND	4.7	0.94
BROMOBENZENE	ND	4.7	0.94
BROMOCHLOROMETHANE	ND	4.7	0.94
BROMODICHLOROMETHANE	ND	4.7	0.94
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	0.94
CHLOROBENZENE	ND	4.7	0.94
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	0.94
CHLOROMETHANE	ND	4.7	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	0.94
CIS-1,3-DICHLOROPROPENE	ND	4.7	0.94
DIBROMOCHLOROMETHANE	ND	4.7	0.94
DIBROMOMETHANE	ND	4.7	0.94
DICHLORODIFLUOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	0.94
HEXACHLOROBUTADIENE	ND	4.7	1.9
ISOPROPYL BENZENE	ND	4.7	0.94
M,P-XYLENE	ND	4.7	1.9
METHYL TERT-BUTYL ETHER (MTBE)	ND	4.7	0.94
METHYLENE CHLORIDE	ND	4.7	1.9
N-BUTYLBENZENE	ND	4.7	0.94
N-PROPYLBENZENE	ND	4.7	0.94
O-XYLENE	ND	4.7	0.94
P-ISOPROPYLTOLUENE	ND	4.7	0.94
SEC-BUTYLBENZENE	ND	4.7	0.94
STYRENE	ND	4.7	0.94
TERT-BUTYLBENZENE	ND	4.7	0.94
TETRACHLOROETHENE	ND	4.7	0.94
TOLUENE	ND	4.7	0.94
TRANS-1,2-DICHLOROETHENE	ND	4.7	0.94
TRANS-1,3-DICHLOROPROPENE	ND	4.7	0.94
TRICHLOROETHENE	ND	4.7	0.94
TRICHLOROFLUOROMETHANE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9
ACETONE	ND	9.4	4.7
2-BUTANONE (MEK)	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE (MIBK)	ND	9.4	4.7
FREON113	ND	4.7	1.9
2-CHLOROETHYL VINYL ETHER	ND	4.7	1.9
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	4.7	1.9
CHLOROTRIFLUOROETHYLENE	ND	4.7	1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	37.6	46.87	80.1	80-120
4-BROMOFLUOROBENZENE	48.0	46.87	102	74-121
TOLUENE-D8	44.7	46.87	95.3	81-117
DIBROMOFLUOROMETHANE	43.2	46.87	92.1	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B130	Date Extracted: 02/14/12 13:31
Sample ID: MBLK1S	Date Analyzed: 02/14/12 13:31
Lab Samp ID: VO03B16B	Dilution Factor: 1
Lab File ID: RBB243	Matrix : SOIL
Ext Btch ID: VO03B16	% Moisture : NA
Calib. Ref.: RLB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	40.3	50.00	80.6	80-120
4-BROMOFLUOROBENZENE	53.9	50.00	108	74-121
TOLUENE-D8	50.7	50.00	101	81-117
DIBROMOFLUOROMETHANE	48.8	50.00	97.6	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B130	Date Extracted: 02/14/12 15:15
Sample ID: MBLK2S	Date Analyzed: 02/14/12 15:15
Lab Samp ID: VPB017SB	Dilution Factor: 1
Lab File ID: RBB245	Matrix : SOIL
Ext Btch ID: VO03B16	% Moisture : NA
Calib. Ref.: RLB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	43.3	50.00	86.7	80-120
4-BROMOFLUOROBENZENE	53.6	50.00	107	74-121
TOLUENE-D8	50.3	50.00	101	81-117
DIBROMOFLUOROMETHANE	50.0	50.00	100	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 5035/8260B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VO03B16B	VO03B16L	VO03B16C		
LAB FILE ID:	RBB243	RBB240	RBB241		
DATE EXTRACTED:	02/14/1213:31	02/14/1211:44	02/14/1212:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/14/1213:31	02/14/1211:44	02/14/1212:21	DATE RECEIVED:	02/14/12
PREP. BATCH:	VO03B16	VO03B16	VO03B16		
CALIB. REF:	RLB208	RLB208	RLB208		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50.0	46.6	93	50.0	50.1	100	7	70-130	50
1,1,1-Trichloroethane	ND	50.0	47.8	96	50.0	50.2	100	5	60-130	50
1,1,2,2-Tetrachloroethane	ND	50.0	45.4	91	50.0	48.7	97	7	70-150	50
1,1,2-Trichloroethane	ND	50.0	43.5	87	50.0	46.1	92	6	70-140	50
1,1-Dichloroethane	ND	50.0	53.2	106	50.0	55.6	111	4	70-140	50
1,1-Dichloroethene	ND	50.0	48.6	97	50.0	51.6	103	6	60-130	50
1,1-Dichloropropene	ND	50.0	51.6	103	50.0	53.3	107	3	70-130	50
1,2,3-Trichlorobenzene	ND	50.0	46.1	92	50.0	48.7	97	6	60-150	50
1,2,3-Trichloropropane	ND	50.0	43.9	88	50.0	46.7	93	6	60-150	50
1,2,4-Trichlorobenzene	ND	50.0	49.0	98	50.0	51.8	104	6	60-140	50
1,2,4-Trimethylbenzene	ND	50.0	48.8	98	50.0	49.9	100	2	70-130	50
1,2-Dibromo-3-chloropropane	ND	50.0	37.6	75	50.0	41.8	84	11	50-150	50
1,2-Dichlorobenzene	ND	50.0	51.4	103	50.0	53.1	106	3	70-130	50
1,2-Dichloroethane	ND	50.0	38.1	76	50.0	40.1	80	5	60-140	50
1,2-Dichloropropane	ND	50.0	50.9	102	50.0	53.0	106	4	70-130	50
1,2-Dibromoethane (EDB)	ND	50.0	41.7	83	50.0	44.9	90	7	50-150	50
1,3,5-Trimethylbenzene	ND	50.0	48.5	97	50.0	50.0	100	3	70-130	50
1,3-Dichlorobenzene	ND	50.0	54.8	110	50.0	55.8	112	2	70-130	50
1,3-Dichloropropane	ND	50.0	46.8	94	50.0	50.1	100	7	70-140	50
1,4-Dichlorobenzene	ND	50.0	54.0	108	50.0	56.3	113	4	70-130	50
2,2-Dichloropropane	ND	50.0	56.6	113	50.0	59.1	118	4	40-140	50
2-Chlorotoluene	ND	50.0	48.8	98	50.0	49.9	100	2	70-130	50
4-Chlorotoluene	ND	50.0	49.5	99	50.0	51.2	102	3	70-130	50
Benzene	ND	50.0	47.5	95	50.0	49.8	100	5	70-130	50
Bromobenzene	ND	50.0	48.0	96	50.0	49.2	98	2	70-130	50
Bromochloromethane	ND	50.0	50.8	102	50.0	54.4	109	7	60-150	50
Bromodichloromethane	ND	50.0	41.2	82	50.0	43.4	87	5	60-130	50
Bromoform	ND	50.0	39.9	80	50.0	42.5	85	6	60-130	50
Bromomethane	ND	50.0	46.4	93	50.0	48.9	98	5	40-160	50
Carbon Tetrachloride	ND	50.0	42.0	84	50.0	43.9	88	5	50-130	50
Chlorobenzene	ND	50.0	52.7	105	50.0	54.6	109	3	70-130	50
Chloroethane	ND	50.0	52.2	104	50.0	55.3	111	6	60-150	50
Chloroform	ND	50.0	48.6	97	50.0	51.2	102	5	70-130	50
Chloromethane	ND	50.0	54.4	109	50.0	57.5	115	6	50-150	50
cis-1,2-Dichloroethene	ND	50.0	52.6	105	50.0	55.1	110	5	70-130	50
cis-1,3-Dichloropropene	ND	50.0	46.8	94	50.0	49.3	99	5	60-130	50
Dibromochloromethane	ND	50.0	42.6	85	50.0	46.0	92	8	70-130	50
Dibromomethane	ND	50.0	40.3	81	50.0	43.1	86	7	70-130	50
Dichlorodifluoromethane	ND	50.0	53.9	108	50.0	55.5	111	3	50-130	50
Ethylbenzene	ND	50.0	50.4	101	50.0	52.7	105	5	70-130	50
Hexachlorobutadiene	ND	50.0	46.6	93	50.0	49.1	98	5	50-140	50
Isopropyl Benzene	ND	50.0	50.4	101	50.0	51.4	103	2	70-140	50
m,p-Xylene	ND	100	94.1	94	100	97.8	98	4	70-140	50
Methyl tert-butyl Ether (MTBE)	ND	50.0	45.2	90	50.0	48.3	97	7	60-150	50
Methylene Chloride	ND	50.0	47.0	94	50.0	49.5	99	5	70-130	50
n-Butylbenzene	ND	50.0	51.3	103	50.0	53.1	106	4	50-150	50
n-Propylbenzene	ND	50.0	52.7	105	50.0	53.7	107	2	70-130	50
o-Xylene	ND	50.0	47.7	95	50.0	50.0	100	5	70-130	50

p-Isopropyltoluene	ND	50.0	51.1	102	50.0	52.1	104	2	60-140	50
Sec-Butylbenzene	ND	50.0	53.5	107	50.0	54.6	109	2	70-130	50
Styrene	ND	50.0	47.7	95	50.0	50.3	101	5	60-140	50
Tert-Butylbenzene	ND	50.0	55.8	112	50.0	57.3	115	3	70-130	50
Tetrachloroethene	ND	50.0	49.4	99	50.0	51.6	103	4	70-130	50
Toluene	ND	50.0	48.9	98	50.0	50.9	102	4	70-130	50
Trans-1,2-Dichloroethene	ND	50.0	51.7	103	50.0	54.2	108	5	70-130	50
Trans-1,3-Dichloropropene	ND	50.0	43.6	87	50.0	46.4	93	6	60-140	50
Trichloroethene	ND	50.0	51.9	104	50.0	53.9	108	4	70-130	50
Trichlorofluoromethane	ND	50.0	41.6	83	50.0	44.5	89	7	70-140	50
Vinyl Chloride	ND	50.0	50.3	101	50.0	53.7	107	7	60-150	50
Acetone	ND	250	239	96	250	248	99	3	40-160	50
2-Butanone (MEK)	ND	250	250	100	250	261	104	4	50-160	50
2-Hexanone	ND	250	228	91	250	240	96	5	60-160	50
4-Methyl-2-Pentanone (MIBK)	ND	250	223	89	250	236	94	6	70-160	50
Freon113	ND	50.0	45.4	91	50.0	47.1	94	4	50-140	50
2-Chloroethyl Vinyl Ether	ND	50.0	45.1	90	50.0	49.2	98	9	50-150	50
2-Chloro-1,1,1-trifluoroethane	ND	50.0	57.5	115	50.0	61.0	122	6	50-150	50
Chlorotrifluoroethylene	ND	50.0	45.8	92	50.0	49.2	98	7	50-150	50

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SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	40.2	80	50.0	40.6	81	80-120
4-Bromofluorobenzene	50.0	55.2	110	50.0	54.0	108	74-121
Toluene-d8	50.0	51.8	104	50.0	51.4	103	81-117
Dibromofluoromethane	50.0	49.2	98	50.0	49.1	98	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/21/12 19:23
Sample ID: TB-021312	Date Analyzed: 02/21/12 19:23
Lab Samp ID: B130-03	Dilution Factor: 1
Lab File ID: RBY340	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	4.57	5.000	91.3	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B130	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/15/12 18:34
Sample ID: SL-146-SA5C-SB-48.0	Date Analyzed: 02/15/12 18:34
Lab Samp ID: B130-01	Dilution Factor: 0.76
Lab File ID: RBY319	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : 10.4
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	8.5	4.2

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	13.6	16.96	79.9	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B130	Date Extracted: 02/15/12 17:32
Sample ID: MBLK1S	Date Analyzed: 02/15/12 17:32
Lab Samp ID: VOF5B11B	Dilution Factor: 1
Lab File ID: RBY317	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	20.2	20.00	101	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B130	Date Extracted: 02/15/12 18:03
Sample ID: MBLK2S	Date Analyzed: 02/15/12 18:03
Lab Samp ID: VPB020SB	Dilution Factor: 1
Lab File ID: RBY318	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	18.0	20.00	89.8	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 5035/8260B SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOF5B11B	VOF5B11L	VOF5B11C		
LAB FILE ID:	RBY317	RBY314	RBY315		
DATE EXTRACTED:	02/15/1217:32	02/15/1216:02	02/15/1216:32	DATE COLLECTED:	NA
DATE ANALYZED:	02/15/1217:32	02/15/1216:02	02/15/1216:32	DATE RECEIVED:	02/15/12
PREP. BATCH:	VOF5B11	VOF5B11	VOF5B11		
CALIB. REF:	RJY282	RJY282	RJY282		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	200	244	122	200	228	114	7	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	20.0	20.2	101	20.0	20.5	102	50-150

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/16/12 13:26
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/16/12 17:35
Lab Samp ID: B130-02	Dilution Factor: 1
Lab File ID: RBJ109	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 10.1
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	190	93
1,2-DICHLOROBENZENE	ND	190	93
1,3-DICHLOROBENZENE	ND	190	93
1,4-DICHLOROBENZENE	ND	190	93
2,4,5-TRICHLOROPHENOL	ND	190	93
2,4,6-TRICHLOROPHENOL	ND	190	93
2,4-DICHLOROPHENOL	ND	190	93
2,4-DIMETHYLPHENOL	ND	190	93
2,4-DINITROPHENOL	ND	370	190
2,4-DINITROTOLUENE	ND	190	93
2,6-DINITROTOLUENE	ND	190	93
2-CHLORONAPHTHALENE	ND	190	93
2-CHLOROPHENOL	ND	190	93
2-METHYLNAPHTHALENE	ND	190	93
2-METHYLPHENOL	ND	190	93
2-NITROANILINE	ND	190	93
2-NITROPHENOL	ND	190	93
3,3'-DICHLOROBENZIDINE	ND	190	93
3-NITROANILINE	ND	190	93
4,6-DINITRO-2-METHYLPHENOL	ND	370	190
4-BROMOPHENYL-PHENYLETHER	ND	190	93
4-CHLORO-3-METHYLPHENOL	ND	190	93
4-CHLOROANILINE	ND	190	93
4-CHLOROPHENYL-PHENYLETHER	ND	190	93
4-METHYLPHENOL (1)	ND	190	93
4-NITROANILINE	ND	190	93
4-NITROPHENOL	ND	370	190
ACENAPHTHENE	ND	190	93
ACENAPHTHYLENE	ND	190	93
ANTHRACENE	ND	190	93
BENZO(A)ANTHRACENE	ND	190	93
BENZO(A)PYRENE	ND	190	93
BENZO(B)FLUORANTHENE	ND	190	93
BENZO(K)FLUORANTHENE	ND	190	93
BENZO(G,H,I)PERYLENE	ND	190	93
BIS(2-CHLOROETHOXY)METHANE	ND	190	93
BIS(2-CHLOROETHYL)ETHER	ND	190	93
BIS(2-CHLOROISOPROPYL)ETHER	ND	190	93
BIS(2-ETHYLHEXYL)PHTHALATE	ND	190	93
BUTYLBENZYLPHTHALATE	ND	190	93
CHRYSENE	ND	190	93
DI-N-BUTYLPHTHALATE	ND	190	93
DI-N-OCTYLPHTHALATE	ND	190	93
DIBENZO(A,H)ANTHRACENE	ND	190	93
DIBENZOFURAN	ND	190	93
DIETHYLPHTHALATE	ND	190	93
DIMETHYLPHTHALATE	ND	190	93
FLUORANTHENE	ND	190	93
FLUORENE	ND	190	93
HEXACHLOROBENZENE	ND	190	93
HEXACHLOROBUTADIENE	ND	190	93
HEXACHLOROCYCLOPENTADIENE	ND	190	93
HEXACHLOROETHANE	ND	190	93
INDENO(1,2,3-CD)PYRENE	ND	190	93
ISOPHORONE	ND	190	93
N-NITROSO-DI-N-PROPYLAMINE	ND	190	93
N-NITROSODIPHENYLAMINE (2)	ND	190	93
NAPHTHALENE	ND	190	93
NITROBENZENE	ND	190	93
PENTACHLOROPHENOL	ND	370	190
PHENANTHRENE	ND	190	93
PHENOL	ND	190	93
PYRENE	ND	190	93
BENZYL ALCOHOL	ND	190	93
1-METHYLNAPHTHALENE	ND	190	93
1,2-DIPHENYLHYDRAZINE	ND	190	93
3,5-DIMETHYLPHENOL	ND	190	93
ANILINE	ND	370	190
BENZIDINE	ND	920	470
BENZOIC ACID	ND	740	370
CARBAZOLE	ND	190	93
N-NITROSODIMETHYLAMINE	ND	190	93
TETRALIN	ND	190	190
2-BUTOXYETHANOL	ND	190	190
2-PHENOXYETHANOL	ND	190	190

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	622	1112	55.9	35-130
2-FLUOROBIPHENYL	193	370.7	52.2	45-130
2-FLUOROPHENOL	574	1112	51.6	25-130
NITROBENZENE-D5	182	370.7	49.2	40-130
PHENOL-D5	587	1112	52.8	25-120
TERPHENYL-D14	227	370.7	61.3	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B130	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	757	1000	75.7	35-130
2-FLUOROBIPHENYL	241	333.3	72.4	45-130
2-FLUOROPHENOL	708	1000	70.8	25-130
NITROBENZENE-D5	228	333.3	68.4	40-130
PHENOL-D5	702	1000	70.2	25-120
TERPHENYL-D14	276	333.3	82.9	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB023SB SVB023SL SVB023SC
LAB FILE ID: RBJ104 RBJ105 RBJ106
DATE EXTRACTED: 02/16/1213:26 02/16/1213:26 02/16/1213:26 DATE COLLECTED: NA
DATE ANALYZED: 02/16/1216:01 02/16/1216:20 02/16/1216:39 DATE RECEIVED: 02/16/12
PREP. BATCH: SVB023S SVB023S SVB023S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	478	72	667	453	68	5	30-130	50
1,2-Dichlorobenzene	ND	667	496	74	667	484	73	2	40-130	50
1,3-Dichlorobenzene	ND	667	494	74	667	480	72	3	40-130	50
1,4-Dichlorobenzene	ND	667	488	73	667	481	72	1	30-130	50
2,4,5-Trichlorophenol	ND	667	520	78	667	478	72	8	40-130	50
2,4,6-Trichlorophenol	ND	667	536	80	667	486	73	10	40-130	50
2,4-Dichlorophenol	ND	667	526	79	667	482	72	9	40-130	50
2,4-Dimethylphenol	ND	667	524	79	667	486	73	8	40-130	50
2,4-Dinitrophenol	ND	667	377	56	667	376	56	0	20-130	50
2,4-Dinitrotoluene	ND	667	564	85	667	542	81	4	30-130	50
2,6-Dinitrotoluene	ND	667	558	84	667	514	77	8	50-130	50
2-Chloronaphthalene	ND	667	547	82	667	507	76	8	50-130	50
2-Chlorophenol	ND	667	515	77	667	496	74	4	30-130	50
2-Methylnaphthalene	ND	667	543	81	667	508	76	7	40-130	50
2-Methylphenol	ND	667	547	82	667	493	74	10	40-130	50
2-Nitroaniline	ND	667	547	82	667	510	77	7	40-130	50
2-Nitrophenol	ND	667	548	82	667	512	77	7	40-130	50
3,3'-Dichlorobenzidine	ND	667	495	74	667	445	67	11	50-130	50
3-Nitroaniline	ND	667	500	75	667	476	71	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	532	80	667	510	76	4	40-160	50
4-Bromophenyl-phenylether	ND	667	558	84	667	488	73	13	40-140	50
4-Chloro-3-Methylphenol	ND	667	536	80	667	482	72	11	30-130	50
4-Chloroaniline	ND	667	470	70	667	425	64	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	536	80	667	497	75	7	40-140	50
4-Methylphenol	ND	667	567	85	667	512	77	10	30-130	50
4-Nitroaniline	ND	667	499	75	667	497	75	0	50-130	50
4-Nitrophenol	ND	667	468	70	667	480	72	3	20-140	50
Acenaphthene	ND	667	542	81	667	499	75	8	30-130	50
Acenaphthylene	ND	667	548	82	667	509	76	7	30-130	50
Anthracene	ND	667	540	81	667	490	73	10	30-130	50
Benzo(a)anthracene	ND	667	540	81	667	498	75	8	40-130	50
Benzo(a)pyrene	ND	667	526	79	667	475	71	10	40-130	50
Benzo(b)fluoranthene	ND	667	552	83	667	506	76	9	40-140	50
Benzo(k)fluoranthene	ND	667	563	84	667	497	75	12	40-140	50
Benzo(g,h,i)perylene	ND	667	558	84	667	500	75	11	40-140	50
bis(2-Chloroethoxy)methane	ND	667	521	78	667	473	71	10	40-130	50
bis(2-Chloroethyl)ether	ND	667	512	77	667	485	73	5	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	507	76	667	525	79	4	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	604	91	667	544	82	10	40-150	50
Butylbenzylphthalate	ND	667	610	92	667	545	82	11	40-150	50
Chrysene	ND	667	560	84	667	512	77	9	40-140	50
Di-n-butylphthalate	ND	667	588	88	667	538	81	9	10-130	50
Di-n-octylphthalate	ND	667	615	92	667	544	82	12	20-140	50
Dibenzo(a,h)anthracene	ND	667	557	83	667	504	76	10	40-130	50
Dibenzofuran	ND	667	543	81	667	503	75	8	40-130	50
Diethylphthalate	ND	667	574	86	667	526	79	9	40-130	50
Dimethylphthalate	ND	667	568	85	667	527	79	7	40-130	50
Fluoranthene	ND	667	562	84	667	529	79	6	40-130	50

Fluorene	ND	667	554	83	667	515	77	7	30-130	50
Hexachlorobenzene	ND	667	569	85	667	512	77	11	30-130	50
Hexachlorobutadiene	ND	667	499	75	667	469	70	6	10-130	50
Hexachlorocyclopentadiene	ND	667	394	59	667	378	57	4	10-130	50
Hexachloroethane	ND	667	487	73	667	478	72	2	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	558	84	667	510	77	9	30-140	50
Isophorone	ND	667	564	85	667	515	77	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	541	81	667	492	74	9	30-130	50
n-Nitrosodiphenylamine	ND	667	439	66	667	387	58	13	30-140	50
Naphthalene	ND	667	521	78	667	490	74	6	30-130	50
Nitrobenzene	ND	667	549	82	667	467	70	16	40-130	50
Pentachlorophenol	ND	667	511	77	667	471	71	8	20-130	50
Phenanthrene	ND	667	559	84	667	509	76	9	30-130	50
Phenol	ND	667	521	78	667	486	73	7	30-130	50
Pyrene	ND	667	554	83	667	489	73	12	30-130	50
Benzyl Alcohol	ND	667	578	87	667	519	78	11	40-130	50
1-Methylnaphthalene	ND	667	550	82	667	508	76	8	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	503	76	13	30-130	50
3,5-Dimethylphenol	ND	667	578	87	667	550	82	5	20-150	50
Aniline	ND	667	387	58	667	357	54	8	20-150	50
Benzidine	ND	2670	1310	49	2670	1310	49	0	20-130	50
Benzoic Acid	ND	2670	753	28	2670	626J	23	18	10-130	50
Carbazole	ND	667	540	81	667	512	77	5	40-130	50
N-Nitrosodimethylamine	ND	667	515	77	667	470	71	9	30-150	50

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SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	776	78	35-130
2-Fluorobiphenyl	333	239	72	333	238	72	45-130
2-Fluorophenol	1000	727	73	1000	701	70	25-130
Nitrobenzene-d5	333	244	73	333	228	68	40-130
Phenol-d5	1000	743	74	1000	707	71	25-120
Terphenyl-d14	333	283	85	333	257	77	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/16/12 13:26
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/16/12 17:35
Lab Samp ID: B130-02	Dilution Factor: 1
Lab File ID: RBJ109	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 10.1
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.95
ACENAPHTHYLENE	ND	1.9	0.95
ANTHRACENE	ND	1.9	0.95
BENZO(A)ANTHRACENE	ND	1.9	0.95
BENZO(A)PYRENE	ND	1.9	0.95
BENZO(B)FLUORANTHENE	ND	1.9	0.95
BENZO(K)FLUORANTHENE	ND	1.9	0.95
BENZO(G,H,I)PERYLENE	0.98J	1.9	0.95
CHRYSENE	ND	1.9	0.95
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.95
FLUORANTHENE	ND	1.9	0.95
FLUORENE	ND	1.9	0.95
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.95
NAPHTHALENE	ND	1.9	0.95
PHENANTHRENE	ND	1.9	0.95
PYRENE	0.95J	1.9	0.95
2-METHYLNAPHTHALENE	ND	1.9	0.95
1-METHYLNAPHTHALENE	ND	1.9	0.95
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.3
BUTYLBENZYLPHTHALATE	ND	19	9.3
DI-N-BUTYLPHTHALATE	ND	19	9.3
DI-N-OCTYLPHTHALATE	ND	19	9.3
DIETHYLPHTHALATE	ND	19	9.3
DIMETHYLPHTHALATE	ND	19	9.3
N-NITROSODIMETHYLAMINE	ND	1.9	0.95

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	204	370.7	55.0	40-130
2-FLUOROBIPHENYL	192	370.7	51.8	45-130
TERPHENYL-D14	227	370.7	61.2	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B130	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	258	333.3	77.3	40-130
2-FLUOROBIPHENYL	240	333.3	72.0	45-130
TERPHENYL-D14	287	333.3	86.1	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 3550B/8270C SIM

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB023SB	SVB023SX	SVB023SY		
LAB FILE ID:	RBJ104	RBJ107	RBJ108		
DATE EXTRACTED:	02/16/1213:26	02/16/1213:26	02/16/1213:26	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1216:01	02/16/1216:57	02/16/1217:16	DATE RECEIVED:	02/16/12
PREP. BATCH:	SVB023S	SVB023S	SVB023S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	301	90	333	287	86	5	10-130	50
Acenaphthylene	ND	333	328	98	333	312	94	5	20-130	50
Anthracene	ND	333	282	85	333	269	81	5	20-130	50
Benzo(a)anthracene	ND	333	282	85	333	280	84	1	30-130	50
Benzo(a)pyrene	ND	333	298	89	333	283	85	5	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	304	91	2	40-130	50
Benzo(k)fluoranthene	ND	333	319	96	333	297	89	7	30-140	50
Benzo(g,h,i)perylene	ND	333	313	94	333	302	91	3	30-140	50
Chrysene	ND	333	271	81	333	272	82	0	30-140	50
Dibenzo(a,h)anthracene	ND	333	320	96	333	309	93	3	40-140	50
Fluoranthene	ND	333	298	90	333	292	87	2	30-130	50
Fluorene	ND	333	326	98	333	309	93	5	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	323	97	333	312	94	3	20-160	50
Naphthalene	ND	333	274	82	333	264	79	4	10-130	50
Phenanthrene	ND	333	286	86	333	275	82	4	20-130	50
Pyrene	ND	333	286	86	333	279	84	2	20-150	50
2-Methylnaphthalene	ND	333	298	89	333	287	86	4	30-150	50
1-Methylnaphthalene	ND	333	299	90	333	288	86	4	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	297	89	333	293	88	1	30-130	50
Butylbenzylphthalate	ND	333	283	85	333	280	84	1	30-150	50
Di-n-butylphthalate	ND	333	300	90	333	286	86	5	10-150	50
Di-n-octylphthalate	ND	333	298	90	333	281	84	6	20-150	50
Diethylphthalate	ND	333	338	101	333	317	95	6	30-150	50
Dimethylphthalate	ND	333	333	100	333	315	95	5	30-150	50
N-Nitrosodimethylamine	ND	333	255	76	333	248	74	3	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	273	82	333	263	79	40-130
2-Fluorobiphenyl	333	256	77	333	242	73	45-130
Terphenyl-d14	333	279	84	333	269	81	45-135

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/15/12 06:20
Sample ID: SL-146-SA5C-SB-48.0	Date Analyzed: 02/15/12 06:20
Lab Samp ID: B130-01	Dilution Factor: 0.84
Lab File ID: EB13064A	Matrix : SOIL
Ext Btch ID: GMB005S	% Moisture : 10.4
Calib. Ref.: EB13057A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.94	0.47

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.55	1.875	82.4	60-130

RL : Reporting Limit
Methanol Extraction: 02/14/12 14:45

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B130	Date Extracted: 02/15/12 02:08
Sample ID: MBLK1S	Date Analyzed: 02/15/12 02:08
Lab Samp ID: GMB005SB	Dilution Factor: 1
Lab File ID: EB13058A	Matrix : SOIL
Ext Btch ID: GMB005S	% Moisture : NA
Calib. Ref.: EB13057A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.71	2.000	85.6	60-130

RL : Reporting Limit
Methanol Extraction: 02/14/12 14:45

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB005SB	GMB005SL	GMB005SC		
LAB FILE ID:	EB13058A	EB13059A	EB13060A		
DATE EXTRACTED:	02/15/1202:08	02/15/1202:50	02/15/1203:32	DATE COLLECTED:	NA
DATE ANALYZED:	02/15/1202:08	02/15/1202:50	02/15/1203:32	DATE RECEIVED:	02/15/12
PREP. BATCH:	GMB005S	GMB005S	GMB005S		
CALIB. REF:	EB13057A	EB13057A	EB13057A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	25.3	101	25.0	23.5	94	7	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	2.09	105	2.00	1.97	98	60-130

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/22/12 09:22
Sample ID: TB-021312	Date Analyzed: 02/22/12 09:22
Lab Samp ID: B130-03R	Dilution Factor: 1
Lab File ID: EB21034A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	30J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	34.7	40.00	86.7	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B130	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/17/12 15:15
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/17/12 19:13
Lab Samp ID: B130-02R	Dilution Factor: 1
Lab File ID: LB17010A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : 10.1
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.78J	1.1	0.56
EFH(C12-C14)	ND	1.1	0.56
EFH(C15-C20)	ND	1.1	0.56
EFH(C21-C30)	4.1	1.1	0.56
EFH(C30-C40)	4.1	1.1	0.56
TOTAL EFH(C8-C40)	9.0	1.1	0.56

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.06	11.12	81.4	50-150
HEXACOSANE	2.74	2.781	98.5	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B130	Date Extracted: 02/17/12 15:15
Sample ID: MBLK1S	Date Analyzed: 02/17/12 17:49
Lab Samp ID: DSB021SB	Dilution Factor: 1
Lab File ID: LB17005A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : NA
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.61J	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	0.61J	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.55	10.00	95.5	50-150
HEXACOSANE	2.59	2.500	104	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB021SB	DSB021SL	DSB021SC		
LAB FILE ID:	LB17005A	LB17006A	LB17007A		
DATE EXTRACTED:	02/17/1215:15	02/17/1215:15	02/17/1215:15	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1217:49	02/17/1218:06	02/17/1218:23	DATE RECEIVED:	02/17/12
PREP. BATCH:	DSB021S	DSB021S	DSB021S		
CALIB. REF:	LB17003A	LB17003A	LB17003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	0.612J	50.0	60.5	121	50.0	57.6	115	5	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	10.3	103	10.0	9.43	94	50-150
Hexacosane	2.50	2.88	115	2.50	2.58	103	50-150

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/14/12 10:00
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/14/12 16:45
Lab Samp ID: B130-02	Dilution Factor: 1
Lab File ID: BB14017A	Matrix : SOIL
Ext Btch ID: MEB001S	% Moisture : 10.1
Calib. Ref.: BB14013A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	560	280
ISOPROPANOL	ND	560	280
METHANOL	ND	560	280

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B130	Date Extracted: 02/14/12 10:00
Sample ID: MBLK1S	Date Analyzed: 02/14/12 15:39
Lab Samp ID: MEB001SB	Dilution Factor: 1
Lab File ID: BB14014A	Matrix : SOIL
Ext Btch ID: MEB001S	% Moisture : NA
Calib. Ref.: BB14013A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB001SB	MEB001SL	MEB001SC		
LAB FILE ID:	BB14014A	BB14015A	BB14016A		
DATE EXTRACTED:	02/14/1210:00	02/14/1210:00	02/14/1210:00	DATE COLLECTED:	NA
DATE ANALYZED:	02/14/1215:39	02/14/1216:08	02/14/1216:26	DATE RECEIVED:	02/14/12
PREP. BATCH:	MEB001S	MEB001S	MEB001S		
CALIB. REF:	BB14013A	BB14013A	BB14013A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	6940	69	10000	7960	80	14	50-150	50
Isopropanol	ND	10000	8510	85	10000	8220	82	4	50-150	50
Methanol	ND	10000	7810	78	10000	7080	71	10	50-150	50

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/14/12 10:00
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/14/12 13:38
Lab Samp ID: B130-02	Dilution Factor: 1
Lab File ID: BB14008A	Matrix : SOIL
Ext Btch ID: PEB001S	% Moisture : 10.1
Calib. Ref.: BB14003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	17	8.3
ETHYLENE GLYCOL	ND	11	5.6
PROPYLENE GLYCOL	ND	11	5.6

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B130	Date Extracted: 02/14/12 10:00
Sample ID: MBLK1S	Date Analyzed: 02/14/12 11:46
Lab Samp ID: PEB001SB	Dilution Factor: 1
Lab File ID: BB14004A	Matrix : SOIL
Ext Btch ID: PEB001S	% Moisture : NA
Calib. Ref.: BB14003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 8015M

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB001SB	PEB001SL	PEB001SC		
LAB FILE ID:	BB14004A	BB14005A	BB14006A		
DATE EXTRACTED:	02/14/1210:00	02/14/1210:00	02/14/1210:00	DATE COLLECTED:	NA
DATE ANALYZED:	02/14/1211:46	02/14/1212:06	02/14/1212:20	DATE RECEIVED:	02/14/12
PREP. BATCH:	PEB001S	PEB001S	PEB001S		
CALIB. REF:	BB14003A	BB14003A	BB14003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	41.1	82	50.0	45.5	91	10	50-150	50
Ethylene Glycol	ND	50.0	46.8	94	50.0	43.1	86	8	50-150	50
Propylene Glycol	ND	25.0	22.5	90	25.0	20.3	81	10	50-150	50

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/16/12 14:21
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/17/12 22:08
Lab Samp ID: B130-02	Dilution Factor: 1
Lab File ID: KB17021A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : 10.1
Calib. Ref.: KB17016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.95|0.95
AROCLOR 1221	(ND)|ND	1.9	0.95|0.95
AROCLOR 1232	(ND)|ND	1.9	0.95|0.95
AROCLOR 1242	(ND)|ND	1.9	0.95|0.95
AROCLOR 1248	(ND)|ND	1.9	0.95|0.95
AROCLOR 1254	(ND)|ND	1.9	0.95|0.95
AROCLOR 1260	(ND)|ND	1.9	0.95|0.95
AROCLOR 1262	(ND)|ND	1.9	0.95|0.95
AROCLOR 1268	(ND)|ND	1.9	0.95|0.95
AROCLOR 5432	(ND)|ND	3.7	1.9|1.9
AROCLOR 5442	(ND)|ND	3.7	1.9|1.9
AROCLOR 5460	(ND)|ND	3.7	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.561)|3.862	5.932	(93.7)|65.1	45-120
TETRACHLORO-M-XYLENE	(6.163)|4.414	5.932	(104)|74.4	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B130	Date Extracted: 02/16/12 14:21
Sample ID: MBLK1S	Date Analyzed: 02/17/12 19:20
Lab Samp ID: 60B032SB	Dilution Factor: 1
Lab File ID: KB17018A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : NA
Calib. Ref.: KB17016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.626)|4.256	5.333	(105)|79.8	45-120
TETRACHLORO-M-XYLENE	(5.721)|4.635	5.333	(107)|86.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B032SB	60B032SL	60B032SC		
LAB FILE ID:	KB17018A	KB17019A	KB17020A		
DATE EXTRACTED:	02/16/1214:21	02/16/1214:21	02/16/1214:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:20	02/17/1220:16	02/17/1221:12	DATE RECEIVED:	02/16/12
PREP. BATCH:	CPB032S	CPB032S	CPB032S		
CALIB. REF:	KB17016A	KB17016A	KB17016A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(60.7)|52.1	(91)|78	66.7	(57.9)|52.9	(87)|79	(5)|2	50-130	50
Aroclor 1260	(ND)|ND	66.7	(69.2)|53.6	(104)|80	66.7	(69.0)|53.9	(103)|81	(0)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(59.2)|53.0	(89)|79	66.7	(56.9)|51.4	(85)|77	(4)|3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.568)|4.212	(104)|79.0	5.333	(5.281)|4.032	(99.0)|75.6	45-120
Tetrachloro-m-xylene	5.333	(5.495)|4.669	(103)|87.6	5.333	(5.136)|4.358	(96.3)|81.7	10-160

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/22/12 18:07
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/23/12 19:16
Lab Samp ID: B130-02	Dilution Factor: .99
Lab File ID: PB23018A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	99	50
RDX	ND	99	50
1,3,5-TRINITROBENZENE	ND	99	50
1,3-DINITROBENZENE	ND	99	50
TETRYL	ND	99	50
NITROBENZENE	ND	99	50
2,4,6-TRINITROTOLUENE	ND	99	50
4-AMINO-2,6-DINITROTOLUENE	ND	99	50
2-AMINO-4,6-DINITROTOLUENE	ND	99	50
2,6-DINITROTOLUENE	ND	99	50
2,4-DINITROTOLUENE	ND	99	50
2-NITROTOLUENE	ND	99	50
3-NITROTOLUENE	ND	99	50
4-NITROTOLUENE	ND	99	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	99
2,6-DIAMINO-4-NITROTOLUENE	ND	200	99

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2010	1980	101	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B130	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:11
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB23015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2150	2000	107	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 8330A

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SL	EXB010SC		
LAB FILE ID:	PB23015A	PB23016A	PB23017A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:11	02/23/1217:53	02/23/1218:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2230	112	2000	2220	111	0	70-130	50
RDX	ND	2000	2120	106	2000	2120	106	0	70-130	50
1,3,5-Trinitrobenzene	ND	2000	2250	113	2000	2250	112	0	70-130	50
1,3-Dinitrobenzene	ND	2000	2040	102	2000	2060	103	1	70-130	50
Tetryl	ND	2000	1780	89	2000	1760	88	1	70-130	50
Nitrobenzene	ND	2000	2090	104	2000	2120	106	2	70-140	50
2,4,6-Trinitrotoluene	ND	2000	1870	93	2000	1960	98	5	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	2000	2130	106	2000	2160	108	1	70-130	50
2-Amino-4,6-Dinitrotoluene	ND	2000	2280	114	2000	2250	113	1	70-130	50
2,6-Dinitrotoluene	ND	2000	2330	117	2000	2280	114	2	70-130	50
2,4-Dinitrotoluene	ND	2000	2150	108	2000	2110	105	2	70-130	50
2-Nitrotoluene	ND	2000	2150	108	2000	2180	109	1	70-130	50
3-Nitrotoluene	ND	2000	2110	106	2000	2100	105	0	70-130	50
4-Nitrotoluene	ND	2000	2110	105	2000	2080	104	1	70-140	50
2,4-Diamino-6-nitrotoluene	ND	2000	2000	100	2000	1960	98	2	30-150	50
2,6-Diamino-4-nitrotoluene	ND	2000	2060	103	2000	2030	101	2	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2120	106	2000	2190	109	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
Batch No. : 12B130	Date Extracted: 02/22/12 18:07
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/24/12 10:30
Lab Samp ID: B130-02	Dilution Factor: .99
Lab File ID: PB24006A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	990	490
PETN	ND	990	490

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2410	1980	122	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B130	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/24/12 09:48
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB24003A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2480	2000	124	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: Method 8332

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SX	EXB010SY		
LAB FILE ID:	PB24003A	PB24004A	PB24005A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1209:48	02/24/1210:02	02/24/1210:16	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB24002A	PB24002A	PB24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7500	7810	104	7500	7750	103	1	50-150	50
PETN	ND	7500	8030	107	7500	7820	104	3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2430	121	2000	2350	117	65-135

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: 02/13/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/13/12
SDG NO. : 12B130	Date Extracted: 02/17/12 10:51
Sample ID: SL-146-SA5C-SB-47.5-48.5	Date Analyzed: 02/24/12 17:55
Lab Samp ID: B130-02	Dilution Factor: 0.962
Lab File ID: 98B14048	Matrix : SOIL
Ext Btch ID: IMB016S	% Moisture : 10.1
Calib. Ref.: 98B14040	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	6610	25.7	12.8
Antimony	ND	0.214	0.107
Arsenic	2.32	0.428	0.214
Barium	49.3	0.428	0.214
Beryllium	0.293	0.107	0.0535
Boron	ND	5.35	2.68
Cadmium	0.102J	0.107	0.0535
Calcium	2420	21.4	10.7
Chromium	8.85	0.428	0.214
Cobalt	2.91	0.107	0.0535
Copper	4.47	0.428	0.214
Iron	12900	21.4	10.7
Lead	3.05	0.214	0.107
Magnesium	2540	10.7	5.35
Manganese	167	0.535	0.268
Molybdenum	0.495	0.107	0.0535
Nickel	4.66	0.428	0.214
Potassium	2000	64.2	32.1
Selenium	ND	0.428	0.214
Silver	ND	0.107	0.0535
Sodium	219	107	53.5
Strontium	9.63	0.535	0.268
Thallium	0.228	0.107	0.0535
Tin	ND	10.7	5.35
Titanium	677	1.07	0.535
Vanadium	17.4	0.107	0.0535
Zinc	40.6	3.21	1.61
Lithium	15.4	2.14	1.07
Phosphorus	308	12.8	6.42
Zirconium	ND	5.35	2.68

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
SDG NO. : 12B130	Date Extracted: 02/17/12 10:51
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:13
Lab Samp ID: IMB016SB	Dilution Factor: 1
Lab File ID: 98B14042	Matrix : SOIL
Ext Btch ID: IMB016S	% Moisture : NA
Calib. Ref.: 98B14040	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B130
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB016SB	IMB016SL	IMB016SC		
LAB FILE ID:	98B14042	98B14043	98B14044		
DATIME EXTRCTD:	02/17/1210:51	02/17/1210:51	02/17/1210:51	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1217:13	02/24/1217:20	02/24/1217:27	DATE RECEIVED:	02/17/12
PREP. BATCH:	IMB016S	IMB016S	IMB016S		
CALIB. REF:	98B14040	98B14040	98B14040		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2500	100	2500	2540	101	1	80-120	20
Antimony	ND	25.0	25.2	101	25.0	24.9	100	1	80-120	20
Arsenic	ND	25.0	24.1	97	25.0	24.7	99	2	80-120	20
Barium	ND	25.0	25.0	100	25.0	24.6	99	1	80-120	20
Beryllium	ND	25.0	25.8	103	25.0	25.1	100	3	80-120	20
Boron	ND	25.0	26.1	104	25.0	25.7	103	2	80-120	20
Cadmium	ND	25.0	24.8	99	25.0	24.4	98	2	80-120	20
Calcium	ND	2500	2590	104	2500	2600	104	0	80-120	20
Chromium	ND	25.0	24.7	99	25.0	24.6	98	0	80-120	20
Cobalt	ND	25.0	24.4	97	25.0	24.8	99	2	80-120	20
Copper	ND	25.0	24.3	97	25.0	24.1	97	1	80-120	20
Iron	ND	2500	2580	103	2500	2570	103	0	80-120	20
Lead	ND	25.0	25.0	100	25.0	25.1	100	0	80-120	20
Magnesium	ND	2500	2440	98	2500	2500	100	3	80-120	20
Manganese	ND	25.0	25.1	101	25.0	25.1	101	0	80-120	20
Molybdenum	ND	25.0	24.7	99	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	24.2	97	0	80-120	20
Potassium	ND	2500	2590	104	2500	2620	105	1	80-120	20
Selenium	ND	25.0	24.2	97	25.0	24.3	97	1	80-120	20
Silver	ND	25.0	25.0	100	25.0	24.4	98	2	80-120	20
Sodium	ND	2500	2470	99	2500	2450	98	1	80-120	20
Strontium	ND	25.0	25.3	101	25.0	25.5	102	1	80-120	20
Thallium	ND	25.0	25.0	100	25.0	25.4	102	2	80-120	20
Tin	ND	25.0	27.2	109	25.0	27.1	109	0	80-120	20
Titanium	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Vanadium	ND	25.0	24.7	99	25.0	24.6	98	1	80-120	20
Zinc	ND	50.0	47.3	95	50.0	47.4	95	0	80-120	20
Lithium	ND	25.0	25.7	103	25.0	24.9	100	3	80-120	20
Phosphorus	ND	250	239	96	250	242	97	1	80-120	20
Zirconium	ND	25.0	26.2	105	25.0	26.4	106	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B130
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1
DILTN FACTR: 0.962 0.980 0.952
SAMPLE ID: SL-146-SA5C-SB-47.5-48.5
CONTROL NO.: B130-02 B130-02M B130-02S
LAB FILE ID: 98B14048 98B14045 98B14046
DATIME EXTRCTD: 02/17/1210:51 02/17/1210:51 02/17/1210:51 DATE COLLECTED: 02/13/12
DATIME ANALYZD: 02/24/1217:55 02/24/1217:34 02/24/1217:41 DATE RECEIVED: 02/13/12
PREP. BATCH: IMB016S IMB016S IMB016S
CALIB. REF: 98B14040 98B14040 98B14040

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	6610	2730	9590	110	2650	9170	97	5	75-125	20
Antimony	ND	27.3	22.2	81	26.5	21.1	80	5	75-125	20
Arsenic	2.32	27.3	28.3	95	26.5	27.3	95	4	75-125	20
Barium	49.3	27.3	82.7	123	26.5	75.3	98	9	75-125	20
Beryllium	0.293	27.3	27.8	101	26.5	27.0	101	3	75-125	20
Boron	ND	27.3	28.1	103	26.5	28.0	106	0	75-125	20
Cadmium	0.102J	27.3	27.0	99	26.5	25.9	98	4	75-125	20
Calcium	2420	2730	5030	96	2650	4880	93	3	75-125	20
Chromium	8.85	27.3	34.9	96	26.5	34.7	98	0	75-125	20
Cobalt	2.91	27.3	28.6	94	26.5	28.1	95	2	75-125	20
Copper	4.47	27.3	30.7	96	26.5	28.9	92	6	75-125	20
Iron	12900	2730	16600	136*	2650	15100	83	10	75-125	20
Lead	3.05	27.3	30.1	99	26.5	28.5	96	6	75-125	20
Magnesium	2540	2730	5250	99	2650	5110	97	3	75-125	20
Manganese	167	27.3	200	122	26.5	190	87	5	75-125	20
Molybdenum	0.495	27.3	27.6	99	26.5	26.8	99	3	75-125	20
Nickel	4.66	27.3	29.6	92	26.5	28.9	91	3	75-125	20
Potassium	2000	2730	4900	107	2650	4700	102	4	75-125	20
Selenium	ND	27.3	26.1	96	26.5	25.5	96	3	75-125	20
Silver	ND	27.3	27.2	100	26.5	25.9	98	5	75-125	20
Sodium	219	2730	2780	94	2650	2710	94	3	75-125	20
Strontium	9.63	27.3	38.5	106	26.5	36.0	100	7	75-125	20
Thallium	0.228	27.3	27.0	98	26.5	26.3	99	3	75-125	20
Tin	ND	27.3	30.8	113	26.5	29.5	112	4	75-125	20
Titanium	677	27.3	711	123	26.5	693	57*	3	75-125	20
Vanadium	17.4	27.3	44.4	99	26.5	42.5	95	4	75-125	20
Zinc	40.6	54.5	95.8	101	52.9	89.9	93	6	75-125	20
Lithium	15.4	27.3	44.2	106	26.5	42.2	101	5	75-125	20
Phosphorus	308	273	605	109	265	564	97	7	75-125	20
Zirconium	ND	27.3	28.1	103	26.5	27.0	102	4	75-125	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B130
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1
DILTN FACTR: 0.962 0.962
SAMPLE ID: SL-146-SA5C-SB-47.5-48.5
CONTROL NO.: B130-02 B130-02A
LAB FILE ID: 98B14048 98B14047
DATIME EXTRCTD: 02/17/1210:51 02/17/1210:51 DATE COLLECTED: 02/13/12
DATIME ANALYZD: 02/24/1217:55 02/24/1217:48 DATE RECEIVED: 02/13/12
PREP. BATCH: IMB016S IMB016S
CALIB. REF: 98B14040 98B14040

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	6610	2680	9020	90	75-125
Antimony	ND	26.8	26.0	97	75-125
Arsenic	2.32	26.8	26.8	92	75-125
Barium	49.3	26.8	74.7	95	75-125
Beryllium	0.293	26.8	26.7	99	75-125
Boron	ND	26.8	27.5	103	75-125
Cadmium	0.102J	26.8	25.4	95	75-125
Calcium	2420	2680	4990	96	75-125
Chromium	8.85	26.8	33.1	90	75-125
Cobalt	2.91	26.8	27.2	91	75-125
Copper	4.47	26.8	28.2	89	75-125
Iron	12900	2680	15200	87	75-125
Lead	3.05	26.8	28.5	95	75-125
Magnesium	2540	2680	4900	88	75-125
Manganese	167	26.8	188	81	75-125
Molybdenum	0.495	26.8	26.6	97	75-125
Nickel	4.66	26.8	28.5	89	75-125
Potassium	2000	2680	4680	100	75-125
Selenium	ND	26.8	25.4	95	75-125
Silver	ND	26.8	25.4	95	75-125
Sodium	219	2680	2710	93	75-125
Strontium	9.63	26.8	36.1	99	75-125
Thallium	0.228	26.8	26.6	98	75-125
Tin	ND	26.8	29.2	109	75-125
Titanium	677	26.8	699	82	75-125
Vanadium	17.4	26.8	41.6	91	75-125
Zinc	40.6	53.5	88.7	90	75-125
Lithium	15.4	26.8	41.4	97	75-125
Phosphorus	308	268	583	103	75-125
Zirconium	ND	26.8	28.2	105	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1

DILUTION FACTOR:	0.962	4.81
SAMPLE ID:	SL-146-SA5C-SB	SL-146-SA5C-SB
EMAX SAMP ID:	B130-02	B130-02J
LAB FILE ID:	98B14048	98B14049
DATE EXTRACTED:	02/17/1210:51	02/17/1210:51
DATE ANALYZED:	02/24/1217:55	02/24/1218:02
PREP. BATCH:	IMB016S	IMB016S
CALIB. REF:	98B14040	98B14040

DATE COLLECTED: 02/13/12
DATE RECEIVED: 02/13/12

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	6610	6910	5	10
Antimony	ND	ND	0	10
Arsenic	2.32	2.45	6	10
Barium	49.3	47.8	3	10
Beryllium	0.293	ND	NA	10
Boron	ND	ND	0	10
Cadmium	0.102J	ND	NA	10
Calcium	2420	2530	5	10
Chromium	8.85	8.95	1	10
Cobalt	2.91	2.96	2	10
Copper	4.47	4.48	0	10
Iron	12900	13300	3	10
Lead	3.05	3.08	1	10
Magnesium	2540	2680	5	10
Manganese	167	170	2	10
Molybdenum	0.495	0.499J	NA	10
Nickel	4.66	4.62	1	10
Potassium	2000	2010	1	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	219	ND	NA	10
Strontium	9.63	9.60	0	10
Thallium	0.228	0.404J	NA	10
Tin	ND	ND	0	10
Titanium	677	661	2	10
Vanadium	17.4	17.2	1	10
Zinc	40.6	40.9	1	10
Lithium	15.4	13.9	9	10
Phosphorus	308	314	2	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB017SB	ND	1	NA	0.100	0.0500	02/21/1217:00	02/21/1213:00	M47B014012	M47B014010	HGB017S	NA	02/21/12
LCS1S	HGB017SL	0.877	1	NA	0.100	0.0500	02/21/1217:02	02/21/1213:00	M47B014013	M47B014010	HGB017S	NA	02/21/12
LCD1S	HGB017SC	0.877	1	NA	0.100	0.0500	02/21/1217:04	02/21/1213:00	M47B014014	M47B014010	HGB017S	NA	02/21/12
SL-146-SA5C-SB-47.5-48.5	B130-02	ND	1.01	10.1	0.112	0.0562	02/21/1217:19	02/21/1213:00	M47B014021	M47B014010	HGB017S	02/13/12	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B130
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB017SB	HGB017SL	HGB017SC		
LAB FILE ID:	M47B014012	M47B014013	M47B014014		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	NA
DATIME ANALYZD:	02/21/1217:00	02/21/1217:02	02/21/1217:04	DATE RECEIVED:	02/21/12
PREP. BATCH:	HGB017S	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010	M47B014010		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.877	105	.833	.877	105	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B130
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	5.4
DILTN FACTR:	1.00	1.00		
SAMPLE ID:	129178-25-0152			
CONTROL NO.:	B171-01	B171-01A		
LAB FILE ID:	M47B014016	M47B014015		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATIME ANALYZD:	02/21/1217:08	02/21/1217:06	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.881	.893	101	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 5.4

DILUTION FACTOR:	1.00	5.02		
SAMPLE ID:	129178-25-0152	129178-25-0152DL		
EMAX SAMP ID:	B171-01	B171-01J		
LAB FILE ID:	M47B014016	M47B014017		
DATE EXTRACTED:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATE ANALYZED:	02/21/1217:08	02/21/1217:10	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.00	0.500	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	5.95	1	NA	1.00	0.500	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	5.91	1	NA	1.00	0.500	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-146-SA5C-SB-47.5-48.5	B130-02	2.53	1	10.1	1.11	0.556	02/16/1217:19	02/16/1212:37	AB21-27	AB21-20	ICB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.95	99	6.00	5.91	98	1	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130

Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	26.1	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	26.1	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-146-SA5C-SB-47.5-48.5	B130-02	1.01J	1	10.1	1.67	0.834	02/16/1217:19	02/16/1212:37	AB21-27	AB21-20	ICB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.1	98	26.6	26.1	98	0	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	19.5	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	19.4	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-146-SA5C-SB-47.5-48.5	B130-02	ND	1	10.1	1.67	0.834	02/16/1217:19	02/16/1212:37	AB21-27	AB21-20	ICB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.5	99	19.7	19.4	98	0	90-110	20

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CNB008SB	ND	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00810	CNB00808	CNB008S	NA	02/17/12
LCS1S	CNB008SL	2.45	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00811	CNB00808	CNB008S	NA	02/17/12
LCD1S	CNB008SC	2.49	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00812	CNB00808	CNB008S	NA	02/17/12
SL-146-SA5C-SB-47.5-48.5	B130-02	ND	1	10.1	0.556	0.278	02/17/1216:18	02/17/1209:30	CNB00820	CNB00818	CNB008S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B130
SAMPLE ID: LCS1S/LCD1S
CONTROL NO.: CNB008SL/C

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 09:30
DATE ANALYZED: 02/17/12 16:17/16:18

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	2.50	2.45	98	2.50	2.49	100	2	85-125	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB002SB	ND	1	NA	20.0	10.0	02/17/1214:55	02/17/1209:45	JB17009	JB17008	PCB002S	NA	02/17/12
LCS1S	PCB002SL	240	1	NA	20.0	10.0	02/17/1215:37	02/17/1209:45	JB17011	JB17008	PCB002S	NA	02/17/12
LCD1S	PCB002SC	236	1	NA	20.0	10.0	02/17/1215:59	02/17/1209:45	JB17012	JB17008	PCB002S	NA	02/17/12
SL-146-SA5C-SB-47.5-48.5	B130-02	ND	1	10.1	22.2	11.1	02/17/1217:10	02/17/1209:45	JB17014	JB17008	PCB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB002SB	PCB002SL	PCB002SC		
LAB FILE ID:	JB17009	JB17011	JB17012		
DATE EXTRACTED:	02/17/1209:45	02/17/1209:45	02/17/1209:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1214:55	02/17/1215:37	02/17/1215:59	DATE RECEIVED:	02/17/12
PREP. BATCH:	PCB002S	PCB002S	PCB002S		
CALIB. REF:	JB17008	JB17008	JB17008		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	240	96	250	236	94	2	85-115	15

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130

Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-146-SA5C-SB-47.5-48.5	B130-02	8.99	1	10.1	NA	NA	02/14/1218:07	02/14/1218:07	PHB019S01	PHB019S	PHB019S	02/13/1215:20	02/13/12

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB002SB	ND	1	NA	1.00	0.500	02/17/1218:27	02/17/1214:19	IB17010	IB17008	HCB002S	NA	02/17/12
MBLK1S	HCB002SQ	ND	1	NA	1.00	0.500	02/17/1218:37	02/17/1214:19	IB17011	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SL	8.61	1	NA	1.00	0.500	02/17/1219:09	02/17/1214:19	IB17012	IB17008	CSB002S	NA	02/17/12
LCS1S	CSB002SX	8.96	1	NA	1.00	0.500	02/17/1219:19	02/17/1214:19	IB17013	IB17008	CSB002S	NA	02/17/12
LCS2S	CIB002SL	125	10	NA	10.0	5.00	02/17/1219:29	02/17/1214:19	IB17014	IB17008	CIB002S	NA	02/17/12
LCS2S	CIB002SX	125	10	NA	10.0	5.00	02/17/1219:40	02/17/1214:19	IB17015	IB17008	CIB002S	NA	02/17/12
SL-146-SA5C-SB-47.5-48.5	B130-02	ND	1	10.1	1.11	0.556	02/17/1219:50	02/17/1214:19	IB17016	IB17008	CIB002S	02/13/1215:20	02/13/12
SL-146-SA5C-SB-47.5-48.5RE	B130-02R	ND	1	10.1	1.11	0.556	02/17/1220:01	02/17/1214:19	IB17017	IB17008	CIB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 10
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB002SB CIB002SL
LAB FILE ID: IB17010 IB17014
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1218:27 02/17/1219:29 DATE RECEIVED: 02/17/12
PREP. BATCH: HCB002S CIB002S
CALIB. REF: IB17008 IB17008

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CSB002SL		
LAB FILE ID:	IB17010	IB17012		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:09	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CSB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.61	86	80-120

METHOD 6850
PERCHLORATE BY LC/MS

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B130
Matrix : SOIL
Instrument ID : G0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PLB002SB	ND	1	NA	5.00	2.50	02/17/1214:11	02/16/1210:07	NB17016	NB17014	PLB002S	NA	02/16/12
LCS2S	PLB002SX	21.3	1	NA	5.00	2.50	02/17/1214:53	02/16/1210:07	NB17019	NB17014	PLB002S	NA	02/16/12
LCD2S	PLB002SY	22.2	1	NA	5.00	2.50	02/17/1215:07	02/16/1210:07	NB17020	NB17014	PLB002S	NA	02/16/12
SL-146-SA5C-SB-47.5-48.5	B130-02	3.25J	1	10.1	5.56	2.78	02/17/1215:22	02/16/1210:07	NB17021	NB17014	PLB002S	02/13/1215:20	02/13/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B130
METHOD: METHOD 6850

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PLB002SB	PLB002SX	PLB002SY		
LAB FILE ID:	NB17016	NB17019	NB17020		
DATE EXTRACTED:	02/16/1210:07	02/16/1210:07	02/16/1210:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1214:11	02/17/1214:53	02/17/1215:07	DATE RECEIVED:	02/16/12
PREP. BATCH:	PLB002S	PLB002S	PLB002S		
CALIB. REF:	NB17014	NB17014	NB17014		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	21.3	85	25.0	22.2	89	4	85-115	15

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/15/12 17:06
Sample ID: TB-021412	Date Analyzed: 02/15/12 17:06
Lab Samp ID: B137-03	Dilution Factor: 1
Lab File ID: RBV208	Matrix : WATER
Ext Btch ID: VO01B10	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.06	10.00	90.6	80-120
4-BROMOFLUOROBENZENE	11.4	10.00	114	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	9.93	10.00	99.3	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B137	Date Extracted: 02/15/12 15:41
Sample ID: MBLK1W	Date Analyzed: 02/15/12 15:41
Lab Samp ID: VO01B10B	Dilution Factor: 1
Lab File ID: RBV205	Matrix : WATER
Ext Btch ID: VO01B10	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	80-120
4-BROMOFLUOROBENZENE	10.9	10.00	109	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	10.1	10.00	101	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VO01B10B VO01B10L VO01B10C
LAB FILE ID: RBV205 RBV202 RBV203
DATE EXTRACTED: 02/15/1215:41 02/15/1214:15 02/15/1214:45 DATE COLLECTED: NA
DATE ANALYZED: 02/15/1215:41 02/15/1214:15 02/15/1214:45 DATE RECEIVED: 02/15/12
PREP. BATCH: VO01B10 VO01B10 VO01B10
CALIB. REF: RJV602 RJV602 RJV602

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	9.04	90	10.0	10.2	102	12	70-130	30
1,1,1-Trichloroethane	ND	10.0	8.88	89	10.0	9.88	99	11	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.1	101	10.0	11.2	112	10	70-130	30
1,1,2-Trichloroethane	ND	10.0	8.80	88	10.0	10.2	102	15	70-130	30
1,1-Dichloroethane	ND	10.0	8.66	87	10.0	9.69	97	11	70-130	30
1,1-Dichloroethene	ND	10.0	7.26	73	10.0	8.10	81	11	60-130	30
1,1-Dichloropropene	ND	10.0	8.65	87	10.0	9.93	99	14	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	7.32	73	10.0	9.00	90	21	60-130	30
1,2,3-Trichloropropane	ND	10.0	9.64	96	10.0	10.8	108	12	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	6.87	69	10.0	8.40	84	20	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	9.35	94	10.0	10.5	105	11	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.31	83	10.0	9.55	96	14	60-130	30
1,2-Dichlorobenzene	ND	10.0	9.14	91	10.0	10.3	103	12	70-130	30
1,2-Dichloroethane	ND	10.0	8.09	81	10.0	9.02	90	11	70-130	30
1,2-Dichloropropane	ND	10.0	9.15	91	10.0	10.1	101	10	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	8.61	86	10.0	10.1	101	16	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	9.68	97	10.0	10.7	107	10	70-130	30
1,3-Dichlorobenzene	ND	10.0	9.43	94	10.0	10.6	106	12	70-130	30
1,3-Dichloropropane	ND	10.0	8.75	87	10.0	10.2	102	15	70-130	30
1,4-Dichlorobenzene	ND	10.0	9.07	91	10.0	10.3	103	13	70-130	30
2,2-Dichloropropane	ND	10.0	9.36	94	10.0	10.3	103	10	50-140	30
2-Chlorotoluene	ND	10.0	9.75	97	10.0	10.6	106	8	70-130	30
4-Chlorotoluene	ND	10.0	9.48	95	10.0	10.5	105	11	70-130	30
Benzene	ND	10.0	8.76	88	10.0	9.77	98	11	70-130	30
Bromobenzene	ND	10.0	9.81	98	10.0	10.7	107	8	70-130	30
Bromochloromethane	ND	10.0	8.19	82	10.0	9.48	95	15	70-130	30
Bromodichloromethane	ND	10.0	8.49	85	10.0	9.59	96	12	70-130	30
Bromoform	ND	10.0	10.2	102	10.0	11.3	113	11	60-140	30
Bromomethane	ND	10.0	9.31	93	10.0	9.87	99	6	50-140	30
Carbon Tetrachloride	ND	10.0	8.98	90	10.0	9.81	98	9	70-130	30
Chlorobenzene	ND	10.0	8.79	88	10.0	9.99	100	13	70-120	30
Chloroethane	ND	10.0	9.21	92	10.0	10.1	101	9	70-140	30
Chloroform	ND	10.0	8.46	85	10.0	9.53	95	12	70-130	30
Chloromethane	ND	10.0	9.50	95	10.0	10.4	104	9	60-130	30
cis-1,2-Dichloroethene	ND	10.0	8.60	86	10.0	9.80	98	13	70-130	30
cis-1,3-Dichloropropene	ND	10.0	8.90	89	10.0	10.0	100	12	70-130	30
Dibromochloromethane	ND	10.0	8.92	89	10.0	10.5	105	16	70-130	30
Dibromomethane	ND	10.0	8.48	85	10.0	9.80	98	14	70-140	30
Dichlorodifluoromethane	ND	10.0	8.47	85	10.0	10.3	103	19	50-140	30
Ethylbenzene	ND	10.0	8.80	88	10.0	9.97	100	12	70-130	30
Hexachlorobutadiene	ND	10.0	8.11	81	10.0	9.44	94	15	60-140	30
Isopropyl Benzene	ND	10.0	10.3	103	10.0	11.0	110	6	70-150	30
m,p-Xylene	ND	20.0	16.9	84	20.0	19.2	96	13	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	8.12	81	10.0	9.62	96	17	70-140	30
Methylene Chloride	ND	10.0	8.00	80	10.0	9.17	92	14	70-130	30
n-Butylbenzene	ND	10.0	8.95	90	10.0	10.3	103	14	60-130	30
n-Propylbenzene	ND	10.0	9.88	99	10.0	10.8	108	8	70-140	30
o-Xylene	ND	10.0	8.57	86	10.0	9.66	97	12	70-130	30

p-Isopropyltoluene	ND	10.0	9.80	98	10.0	11.0	110	11	70-140	30
Sec-Butylbenzene	ND	10.0	9.95	99	10.0	11.2	112	12	70-130	30
Styrene	ND	10.0	9.25	93	10.0	10.6	106	13	70-130	30
Tert-Butylbenzene	ND	10.0	10.4	104	10.0	11.4	114	9	70-130	30
Tetrachloroethene	ND	10.0	8.43	84	10.0	9.83	98	15	70-130	30
Toluene	ND	10.0	8.90	89	10.0	9.94	99	11	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	7.82	78	10.0	8.80	88	12	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	8.68	87	10.0	9.97	100	14	70-140	30
Trichloroethene	ND	10.0	8.75	87	10.0	9.87	99	12	70-130	30
Trichlorofluoromethane	ND	10.0	9.38	94	10.0	10.8	108	14	70-140	30
Vinyl Chloride	ND	10.0	8.64	86	10.0	9.49	95	9	60-150	30
Acetone	ND	50.0	39.5	79	50.0	44.1	88	11	50-150	30
2-Butanone (MEK)	ND	50.0	44.3	89	50.0	50.0	100	12	60-140	30
2-Hexanone	ND	50.0	44.0	88	50.0	50.4	101	14	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	46.0	92	50.0	51.2	102	11	60-140	30
Freon113	ND	10.0	7.93	79	10.0	9.10	91	14	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	7.39	74	10.0	8.64	86	16	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	11.0	110	10.0	9.83	98	11	50-150	30
Chlorotrifluoroethylene	ND	10.0	9.36	94	10.0	8.11	81	14	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.50	85	10.0	8.99	90	80-120
4-Bromofluorobenzene	10.0	10.8	108	10.0	10.4	104	86-115
Toluene-d8	10.0	10.2	102	10.0	10.1	101	88-110
Dibromofluoromethane	10.0	9.58	96	10.0	9.93	99	86-118

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/17/12 17:32
Sample ID: SL-148-SA5C-SB-40.5	Date Analyzed: 02/17/12 17:32
Lab Samp ID: B137-01	Dilution Factor: 0.92
Lab File ID: RBB283	Matrix : SOIL
Ext Btch ID: VO03B18	% Moisture : 5.3
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	4.9	0.97
1,1,1-TRICHLOROETHANE	ND	4.9	0.97
1,1,2,2-TETRACHLOROETHANE	ND	4.9	0.97
1,1,2-TRICHLOROETHANE	ND	4.9	0.97
1,1-DICHLOROETHANE	ND	4.9	0.97
1,1-DICHLOROETHENE	ND	4.9	0.97
1,1-DICHLOROPROPENE	ND	4.9	0.97
1,2,3-TRICHLOROBENZENE	ND	4.9	1.9
1,2,3-TRICHLOROPROPANE	ND	4.9	1.9
1,2,4-TRICHLOROBENZENE	ND	4.9	1.9
1,2,4-TRIMETHYLBENZENE	ND	4.9	0.97
1,2-DIBROMO-3-CHLOROPROPANE	ND	4.9	1.9
1,2-DICHLOROBENZENE	ND	4.9	0.97
1,2-DICHLOROETHANE	ND	4.9	0.97
1,2-DICHLOROPROPANE	ND	4.9	0.97
1,2-DIBROMOETHANE (EDB)	ND	4.9	0.97
1,3,5-TRIMETHYLBENZENE	ND	4.9	0.97
1,3-DICHLOROBENZENE	ND	4.9	0.97
1,3-DICHLOROPROPANE	ND	4.9	0.97
1,4-DICHLOROBENZENE	ND	4.9	0.97
2,2-DICHLOROPROPANE	ND	4.9	1.9
2-CHLOROTOLUENE	ND	4.9	0.97
4-CHLOROTOLUENE	ND	4.9	0.97
BENZENE	ND	4.9	0.97
BROMOBENZENE	ND	4.9	0.97
BROMOCHLOROMETHANE	ND	4.9	0.97
BROMODICHLOROMETHANE	ND	4.9	0.97
BROMOFORM	ND	4.9	1.9
BROMOMETHANE	ND	4.9	1.9
CARBON TETRACHLORIDE	ND	4.9	0.97
CHLOROBENZENE	ND	4.9	0.97
CHLOROETHANE	ND	4.9	1.9
CHLOROFORM	ND	4.9	0.97
CHLOROMETHANE	ND	4.9	1.9
CIS-1,2-DICHLOROETHENE	ND	4.9	0.97
CIS-1,3-DICHLOROPROPENE	ND	4.9	0.97
DIBROMOCHLOROMETHANE	ND	4.9	0.97
DIBROMOMETHANE	ND	4.9	0.97
DICHLORODIFLUOROMETHANE	ND	4.9	1.9
ETHYLBENZENE	ND	4.9	0.97
HEXACHLOROBUTADIENE	ND	4.9	1.9
ISOPROPYL BENZENE	ND	4.9	0.97
M,P-XYLENE	ND	4.9	1.9
METHYL TERT-BUTYL ETHER (MTBE)	ND	4.9	0.97
METHYLENE CHLORIDE	ND	4.9	1.9
N-BUTYLBENZENE	ND	4.9	0.97
N-PROPYLBENZENE	ND	4.9	0.97
O-XYLENE	ND	4.9	0.97
P-ISOPROPYLTOLUENE	ND	4.9	0.97
SEC-BUTYLBENZENE	ND	4.9	0.97
STYRENE	ND	4.9	0.97
TERT-BUTYLBENZENE	ND	4.9	0.97
TETRACHLOROETHENE	ND	4.9	0.97
TOLUENE	ND	4.9	0.97
TRANS-1,2-DICHLOROETHENE	ND	4.9	0.97
TRANS-1,3-DICHLOROPROPENE	ND	4.9	0.97
TRICHLOROETHENE	ND	4.9	0.97
TRICHLOROFLUOROMETHANE	ND	4.9	1.9
VINYL CHLORIDE	ND	4.9	1.9
ACETONE	ND	9.7	4.9
2-BUTANONE (MEK)	ND	9.7	4.9
2-HEXANONE	ND	9.7	4.9
4-METHYL-2-PENTANONE (MIBK)	ND	9.7	4.9
FREON113	ND	4.9	1.9
2-CHLOROETHYL VINYL ETHER	ND	4.9	1.9
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	4.9	1.9
CHLOROTRIFLUOROETHYLENE	ND	4.9	1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	46.3	48.57	95.4	80-120
4-BROMOFLUOROBENZENE	57.3	48.57	118	74-121
TOLUENE-D8	48.7	48.57	100	81-117
DIBROMOFLUOROMETHANE	46.9	48.57	96.6	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B137	Date Extracted: 02/17/12 11:20
Sample ID: MBLK1S	Date Analyzed: 02/17/12 11:20
Lab Samp ID: VO03B18B	Dilution Factor: 1
Lab File ID: RBB271	Matrix : SOIL
Ext Btch ID: VO03B18	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	44.7	50.00	89.3	80-120
4-BROMOFLUOROBENZENE	50.9	50.00	102	74-121
TOLUENE-D8	50.3	50.00	101	81-117
DIBROMOFLUOROMETHANE	47.6	50.00	95.2	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B137	Date Extracted: 02/17/12 14:54
Sample ID: MBLK2S	Date Analyzed: 02/17/12 14:54
Lab Samp ID: VPB022SB	Dilution Factor: 1
Lab File ID: RBB278	Matrix : SOIL
Ext Btch ID: VO03B18	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	45.4	50.00	90.7	80-120
4-BROMOFLUOROBENZENE	52.0	50.00	104	74-121
TOLUENE-D8	49.6	50.00	99.2	81-117
DIBROMOFLUOROMETHANE	48.2	50.00	96.4	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 5035/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VO03B18B VO03B18L VO03B18C
LAB FILE ID: RBB271 RBB268 RBB269
DATE EXTRACTED: 02/17/1211:20 02/17/1209:17 02/17/1209:53 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1211:20 02/17/1209:17 02/17/1209:53 DATE RECEIVED: 02/17/12
PREP. BATCH: VO03B18 VO03B18 VO03B18
CALIB. REF: RBB256 RBB256 RBB256

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50.0	50.8	102	50.0	52.2	104	3	70-130	50
1,1,1-Trichloroethane	ND	50.0	51.3	103	50.0	52.1	104	2	60-130	50
1,1,2,2-Tetrachloroethane	ND	50.0	51.6	103	50.0	52.1	104	1	70-150	50
1,1,2-Trichloroethane	ND	50.0	49.2	98	50.0	50.2	100	2	70-140	50
1,1-Dichloroethane	ND	50.0	50.8	102	50.0	51.9	104	2	70-140	50
1,1-Dichloroethene	ND	50.0	50.1	100	50.0	52.3	105	4	60-130	50
1,1-Dichloropropene	ND	50.0	52.3	105	50.0	53.5	107	2	70-130	50
1,2,3-Trichlorobenzene	ND	50.0	51.2	102	50.0	50.4	101	2	60-150	50
1,2,3-Trichloropropane	ND	50.0	50.7	101	50.0	51.3	103	1	60-150	50
1,2,4-Trichlorobenzene	ND	50.0	53.6	107	50.0	53.5	107	0	60-140	50
1,2,4-Trimethylbenzene	ND	50.0	53.1	106	50.0	54.1	108	2	70-130	50
1,2-Dibromo-3-chloropropane	ND	50.0	48.1	96	50.0	48.4	97	1	50-150	50
1,2-Dichlorobenzene	ND	50.0	52.4	105	50.0	52.9	106	1	70-130	50
1,2-Dichloroethane	ND	50.0	49.5	99	50.0	50.3	101	2	60-140	50
1,2-Dichloropropane	ND	50.0	51.1	102	50.0	52.5	105	3	70-130	50
1,2-Dibromoethane (EDB)	ND	50.0	50.5	101	50.0	51.2	102	1	50-150	50
1,3,5-Trimethylbenzene	ND	50.0	53.7	107	50.0	54.7	109	2	70-130	50
1,3-Dichlorobenzene	ND	50.0	53.9	108	50.0	55.2	110	2	70-130	50
1,3-Dichloropropane	ND	50.0	50.3	101	50.0	51.4	103	2	70-140	50
1,4-Dichlorobenzene	ND	50.0	54.8	110	50.0	55.0	110	0	70-130	50
2,2-Dichloropropane	ND	50.0	55.0	110	50.0	54.1	108	2	40-140	50
2-Chlorotoluene	ND	50.0	52.7	105	50.0	54.0	108	2	70-130	50
4-Chlorotoluene	ND	50.0	53.7	107	50.0	54.9	110	2	70-130	50
Benzene	ND	50.0	50.8	102	50.0	52.0	104	2	70-130	50
Bromobenzene	ND	50.0	52.1	104	50.0	53.6	107	3	70-130	50
Bromochloromethane	ND	50.0	49.8	100	50.0	51.5	103	3	60-150	50
Bromodichloromethane	ND	50.0	50.3	101	50.0	51.6	103	3	60-130	50
Bromoform	ND	50.0	53.0	106	50.0	54.3	109	2	60-130	50
Bromomethane	ND	50.0	50.3	101	50.0	49.1	98	2	40-160	50
Carbon Tetrachloride	ND	50.0	51.3	103	50.0	52.5	105	2	50-130	50
Chlorobenzene	ND	50.0	51.7	103	50.0	52.6	105	2	70-130	50
Chloroethane	ND	50.0	49.8	100	50.0	51.5	103	3	60-150	50
Chloroform	ND	50.0	49.7	99	50.0	50.9	102	2	70-130	50
Chloromethane	ND	50.0	48.9	98	50.0	49.4	99	1	50-150	50
cis-1,2-Dichloroethene	ND	50.0	49.6	99	50.0	51.4	103	3	70-130	50
cis-1,3-Dichloropropene	ND	50.0	51.6	103	50.0	52.8	106	2	60-130	50
Dibromochloromethane	ND	50.0	51.2	102	50.0	52.1	104	2	70-130	50
Dibromomethane	ND	50.0	50.8	102	50.0	51.7	103	2	70-130	50
Dichlorodifluoromethane	ND	50.0	45.4	91	50.0	41.9	84	8	50-130	50
Ethylbenzene	ND	50.0	52.0	104	50.0	52.2	104	0	70-130	50
Hexachlorobutadiene	ND	50.0	51.7	103	50.0	51.1	102	1	50-140	50
Isopropyl Benzene	ND	50.0	52.2	104	50.0	54.0	108	3	70-140	50
m,p-Xylene	ND	100	102	102	100	103	103	1	70-140	50
Methyl tert-butyl Ether (MTBE)	ND	50.0	47.9	96	50.0	48.5	97	1	60-150	50
Methylene Chloride	ND	50.0	49.7	99	50.0	50.2	100	1	70-130	50
n-Butylbenzene	ND	50.0	55.4	111	50.0	55.8	112	1	50-150	50
n-Propylbenzene	ND	50.0	53.3	107	50.0	54.6	109	2	70-130	50
o-Xylene	ND	50.0	50.6	101	50.0	51.4	103	2	70-130	50

p-Isopropyltoluene	ND	50.0	54.0	108	50.0	54.6	109	1	60-140	50
Sec-Butylbenzene	ND	50.0	52.2	104	50.0	53.0	106	1	70-130	50
Styrene	ND	50.0	54.5	109	50.0	55.6	111	2	60-140	50
Tert-Butylbenzene	ND	50.0	52.0	104	50.0	53.8	108	3	70-130	50
Tetrachloroethene	ND	50.0	52.8	106	50.0	53.0	106	0	70-130	50
Toluene	ND	50.0	51.0	102	50.0	52.4	105	3	70-130	50
Trans-1,2-Dichloroethene	ND	50.0	51.1	102	50.0	52.4	105	3	70-130	50
Trans-1,3-Dichloropropene	ND	50.0	52.2	104	50.0	53.3	107	2	60-140	50
Trichloroethene	ND	50.0	51.6	103	50.0	51.9	104	0	70-130	50
Trichlorofluoromethane	ND	50.0	49.3	99	50.0	49.1	98	0	70-140	50
Vinyl Chloride	ND	50.0	49.9	100	50.0	50.0	100	0	60-150	50
Acetone	ND	250	226	91	250	225	90	1	40-160	50
2-Butanone (MEK)	ND	250	228	91	250	225	90	1	50-160	50
2-Hexanone	ND	250	236	94	250	236	94	0	60-160	50
4-Methyl-2-Pentanone (MIBK)	ND	250	233	93	250	235	94	1	70-160	50
Freon113	ND	50.0	50.8	102	50.0	50.6	101	0	50-140	50
2-Chloroethyl Vinyl Ether	ND	50.0	42.4	85	50.0	43.6	87	3	50-150	50
2-Chloro-1,1,1-trifluoroethane	ND	50.0	42.6	85	50.0	48.2	96	12	50-150	50
Chlorotrifluoroethylene	ND	50.0	47.7	95	50.0	49.6	99	4	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	41.7	83	50.0	41.4	83	80-120
4-Bromofluorobenzene	50.0	46.1	92	50.0	46.9	94	74-121
Toluene-d8	50.0	45.0	90	50.0	45.6	91	81-117
Dibromofluoromethane	50.0	44.0	88	50.0	44.1	88	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/21/12 19:53
Sample ID: TB-021412	Date Analyzed: 02/21/12 19:53
Lab Samp ID: B137-03	Dilution Factor: 1
Lab File ID: RBY341	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.07	5.000	101	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B137	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/15/12 19:04
Sample ID: SL-148-SA5C-SB-40.5	Date Analyzed: 02/15/12 19:04
Lab Samp ID: B137-01	Dilution Factor: 0.89
Lab File ID: RBY320	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : 5.3
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	9.4	4.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	11.5	18.80	61.4	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B137	Date Extracted: 02/15/12 17:32
Sample ID: MBLK1S	Date Analyzed: 02/15/12 17:32
Lab Samp ID: VOF5B11B	Dilution Factor: 1
Lab File ID: RBY317	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	20.2	20.00	101	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B137	Date Extracted: 02/15/12 18:03
Sample ID: MBLK2S	Date Analyzed: 02/15/12 18:03
Lab Samp ID: VPB020SB	Dilution Factor: 1
Lab File ID: RBY318	Matrix : SOIL
Ext Btch ID: VOF5B11	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	18.0	20.00	89.8	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 5035/8260B SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOF5B11B	VOF5B11L	VOF5B11C		
LAB FILE ID:	RBY317	RBY314	RBY315		
DATE EXTRACTED:	02/15/1217:32	02/15/1216:02	02/15/1216:32	DATE COLLECTED:	NA
DATE ANALYZED:	02/15/1217:32	02/15/1216:02	02/15/1216:32	DATE RECEIVED:	02/15/12
PREP. BATCH:	VOF5B11	VOF5B11	VOF5B11		
CALIB. REF:	RJY282	RJY282	RJY282		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	200	244	122	200	228	114	7	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	20.0	20.2	101	20.0	20.5	102	50-150

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/16/12 13:26
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/16/12 17:53
Lab Samp ID: B137-02	Dilution Factor: 1
Lab File ID: RBJ110	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 6.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	90
1,2-DICHLOROBENZENE	ND	180	90
1,3-DICHLOROBENZENE	ND	180	90
1,4-DICHLOROBENZENE	ND	180	90
2,4,5-TRICHLOROPHENOL	ND	180	90
2,4,6-TRICHLOROPHENOL	ND	180	90
2,4-DICHLOROPHENOL	ND	180	90
2,4-DIMETHYLPHENOL	ND	180	90
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	90
2,6-DINITROTOLUENE	ND	180	90
2-CHLORONAPHTHALENE	ND	180	90
2-CHLOROPHENOL	ND	180	90
2-METHYLNAPHTHALENE	ND	180	90
2-METHYLPHENOL	ND	180	90
2-NITROANILINE	ND	180	90
2-NITROPHENOL	ND	180	90
3,3'-DICHLOROBENZIDINE	ND	180	90
3-NITROANILINE	ND	180	90
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	90
4-CHLORO-3-METHYLPHENOL	ND	180	90
4-CHLOROANILINE	ND	180	90
4-CHLOROPHENYL-PHENYLETHER	ND	180	90
4-METHYLPHENOL (1)	ND	180	90
4-NITROANILINE	ND	180	90
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	90
ACENAPHTHYLENE	ND	180	90
ANTHRACENE	ND	180	90
BENZO(A)ANTHRACENE	ND	180	90
BENZO(A)PYRENE	ND	180	90
BENZO(B)FLUORANTHENE	ND	180	90
BENZO(K)FLUORANTHENE	ND	180	90
BENZO(G,H,I)PERYLENE	ND	180	90
BIS(2-CHLOROETHOXY)METHANE	ND	180	90
BIS(2-CHLOROETHYL)ETHER	ND	180	90
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	90
BUTYLBENZYLPHTHALATE	ND	180	90
CHRYSENE	ND	180	90
DI-N-BUTYLPHTHALATE	ND	180	90
DI-N-OCTYLPHTHALATE	ND	180	90
DIBENZO(A,H)ANTHRACENE	ND	180	90
DIBENZOFURAN	ND	180	90
DIETHYLPHTHALATE	ND	180	90
DIMETHYLPHTHALATE	ND	180	90
FLUORANTHENE	ND	180	90
FLUORENE	ND	180	90
HEXACHLOROBENZENE	ND	180	90
HEXACHLOROBUTADIENE	ND	180	90
HEXACHLOROCYCLOPENTADIENE	ND	180	90
HEXACHLOROETHANE	ND	180	90
INDENO(1,2,3-CD)PYRENE	ND	180	90
ISOPHORONE	ND	180	90
N-NITROSO-DI-N-PROPYLAMINE	ND	180	90
N-NITROSODIPHENYLAMINE (2)	ND	180	90
NAPHTHALENE	ND	180	90
NITROBENZENE	ND	180	90
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	90
PHENOL	ND	180	90
PYRENE	ND	180	90
BENZYL ALCOHOL	ND	180	90
1-METHYLNAPHTHALENE	ND	180	90
1,2-DIPHENYLHYDRAZINE	ND	180	90
3,5-DIMETHYLPHENOL	ND	180	90
ANILINE	ND	360	180
BENZIDINE	ND	890	450
BENZOIC ACID	ND	710	360
CARBAZOLE	ND	180	90
N-NITROSODIMETHYLAMINE	ND	180	90
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	933	1071	87.1	35-130
2-FLUOROBIPHENYL	240	356.9	67.2	45-130
2-FLUOROPHENOL	690	1071	64.4	25-130
NITROBENZENE-D5	227	356.9	63.7	40-130
PHENOL-D5	685	1071	64.0	25-120
TERPHENYL-D14	340	356.9	95.2	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B137	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	757	1000	75.7	35-130
2-FLUOROBIPHENYL	241	333.3	72.4	45-130
2-FLUOROPHENOL	708	1000	70.8	25-130
NITROBENZENE-D5	228	333.3	68.4	40-130
PHENOL-D5	702	1000	70.2	25-120
TERPHENYL-D14	276	333.3	82.9	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB023SB SVB023SL SVB023SC
LAB FILE ID: RBJ104 RBJ105 RBJ106
DATE EXTRACTED: 02/16/1213:26 02/16/1213:26 02/16/1213:26 DATE COLLECTED: NA
DATE ANALYZED: 02/16/1216:01 02/16/1216:20 02/16/1216:39 DATE RECEIVED: 02/16/12
PREP. BATCH: SVB023S SVB023S SVB023S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	478	72	667	453	68	5	30-130	50
1,2-Dichlorobenzene	ND	667	496	74	667	484	73	2	40-130	50
1,3-Dichlorobenzene	ND	667	494	74	667	480	72	3	40-130	50
1,4-Dichlorobenzene	ND	667	488	73	667	481	72	1	30-130	50
2,4,5-Trichlorophenol	ND	667	520	78	667	478	72	8	40-130	50
2,4,6-Trichlorophenol	ND	667	536	80	667	486	73	10	40-130	50
2,4-Dichlorophenol	ND	667	526	79	667	482	72	9	40-130	50
2,4-Dimethylphenol	ND	667	524	79	667	486	73	8	40-130	50
2,4-Dinitrophenol	ND	667	377	56	667	376	56	0	20-130	50
2,4-Dinitrotoluene	ND	667	564	85	667	542	81	4	30-130	50
2,6-Dinitrotoluene	ND	667	558	84	667	514	77	8	50-130	50
2-Chloronaphthalene	ND	667	547	82	667	507	76	8	50-130	50
2-Chlorophenol	ND	667	515	77	667	496	74	4	30-130	50
2-Methylnaphthalene	ND	667	543	81	667	508	76	7	40-130	50
2-Methylphenol	ND	667	547	82	667	493	74	10	40-130	50
2-Nitroaniline	ND	667	547	82	667	510	77	7	40-130	50
2-Nitrophenol	ND	667	548	82	667	512	77	7	40-130	50
3,3'-Dichlorobenzidine	ND	667	495	74	667	445	67	11	50-130	50
3-Nitroaniline	ND	667	500	75	667	476	71	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	532	80	667	510	76	4	40-160	50
4-Bromophenyl-phenylether	ND	667	558	84	667	488	73	13	40-140	50
4-Chloro-3-Methylphenol	ND	667	536	80	667	482	72	11	30-130	50
4-Chloroaniline	ND	667	470	70	667	425	64	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	536	80	667	497	75	7	40-140	50
4-Methylphenol	ND	667	567	85	667	512	77	10	30-130	50
4-Nitroaniline	ND	667	499	75	667	497	75	0	50-130	50
4-Nitrophenol	ND	667	468	70	667	480	72	3	20-140	50
Acenaphthene	ND	667	542	81	667	499	75	8	30-130	50
Acenaphthylene	ND	667	548	82	667	509	76	7	30-130	50
Anthracene	ND	667	540	81	667	490	73	10	30-130	50
Benzo(a)anthracene	ND	667	540	81	667	498	75	8	40-130	50
Benzo(a)pyrene	ND	667	526	79	667	475	71	10	40-130	50
Benzo(b)fluoranthene	ND	667	552	83	667	506	76	9	40-140	50
Benzo(k)fluoranthene	ND	667	563	84	667	497	75	12	40-140	50
Benzo(g,h,i)perylene	ND	667	558	84	667	500	75	11	40-140	50
bis(2-Chloroethoxy)methane	ND	667	521	78	667	473	71	10	40-130	50
bis(2-Chloroethyl)ether	ND	667	512	77	667	485	73	5	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	507	76	667	525	79	4	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	604	91	667	544	82	10	40-150	50
Butylbenzylphthalate	ND	667	610	92	667	545	82	11	40-150	50
Chrysene	ND	667	560	84	667	512	77	9	40-140	50
Di-n-butylphthalate	ND	667	588	88	667	538	81	9	10-130	50
Di-n-octylphthalate	ND	667	615	92	667	544	82	12	20-140	50
Dibenzo(a,h)anthracene	ND	667	557	83	667	504	76	10	40-130	50
Dibenzofuran	ND	667	543	81	667	503	75	8	40-130	50
Diethylphthalate	ND	667	574	86	667	526	79	9	40-130	50
Dimethylphthalate	ND	667	568	85	667	527	79	7	40-130	50
Fluoranthene	ND	667	562	84	667	529	79	6	40-130	50

Fluorene	ND	667	554	83	667	515	77	7	30-130	50
Hexachlorobenzene	ND	667	569	85	667	512	77	11	30-130	50
Hexachlorobutadiene	ND	667	499	75	667	469	70	6	10-130	50
Hexachlorocyclopentadiene	ND	667	394	59	667	378	57	4	10-130	50
Hexachloroethane	ND	667	487	73	667	478	72	2	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	558	84	667	510	77	9	30-140	50
Isophorone	ND	667	564	85	667	515	77	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	541	81	667	492	74	9	30-130	50
n-Nitrosodiphenylamine	ND	667	439	66	667	387	58	13	30-140	50
Naphthalene	ND	667	521	78	667	490	74	6	30-130	50
Nitrobenzene	ND	667	549	82	667	467	70	16	40-130	50
Pentachlorophenol	ND	667	511	77	667	471	71	8	20-130	50
Phenanthrene	ND	667	559	84	667	509	76	9	30-130	50
Phenol	ND	667	521	78	667	486	73	7	30-130	50
Pyrene	ND	667	554	83	667	489	73	12	30-130	50
Benzyl Alcohol	ND	667	578	87	667	519	78	11	40-130	50
1-Methylnaphthalene	ND	667	550	82	667	508	76	8	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	503	76	13	30-130	50
3,5-Dimethylphenol	ND	667	578	87	667	550	82	5	20-150	50
Aniline	ND	667	387	58	667	357	54	8	20-150	50
Benzidine	ND	2670	1310	49	2670	1310	49	0	20-130	50
Benzoic Acid	ND	2670	753	28	2670	626J	23	18	10-130	50
Carbazole	ND	667	540	81	667	512	77	5	40-130	50
N-Nitrosodimethylamine	ND	667	515	77	667	470	71	9	30-150	50

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SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	776	78	35-130
2-Fluorobiphenyl	333	239	72	333	238	72	45-130
2-Fluorophenol	1000	727	73	1000	701	70	25-130
Nitrobenzene-d5	333	244	73	333	228	68	40-130
Phenol-d5	1000	743	74	1000	707	71	25-120
Terphenyl-d14	333	283	85	333	257	77	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/16/12 13:26
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/16/12 17:53
Lab Samp ID: B137-02	Dilution Factor: 1
Lab File ID: RBJ110	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 6.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.91
ACENAPHTHYLENE	ND	1.8	0.91
ANTHRACENE	ND	1.8	0.91
BENZO(A)ANTHRACENE	1.7J	1.8	0.91
BENZO(A)PYRENE	1.1J	1.8	0.91
BENZO(B)FLUORANTHENE	ND	1.8	0.91
BENZO(K)FLUORANTHENE	ND	1.8	0.91
BENZO(G,H,I)PERYLENE	1.5J	1.8	0.91
CHRYSENE	ND	1.8	0.91
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.91
FLUORANTHENE	ND	1.8	0.91
FLUORENE	ND	1.8	0.91
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.91
NAPHTHALENE	ND	1.8	0.91
PHENANTHRENE	ND	1.8	0.91
PYRENE	0.99J	1.8	0.91
2-METHYLNAPHTHALENE	ND	1.8	0.91
1-METHYLNAPHTHALENE	ND	1.8	0.91
BIS(2-ETHYLHEXYL)PHTHALATE	12J	18	9.0
BUTYLBENZYLPHTHALATE	ND	18	9.0
DI-N-BUTYLPHTHALATE	ND	18	9.0
DI-N-OCTYLPHTHALATE	ND	18	9.0
DIETHYLPHTHALATE	ND	18	9.0
DIMETHYLPHTHALATE	ND	18	9.0
N-NITROSODIMETHYLAMINE	ND	1.8	0.91

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	246	356.9	68.9	40-130
2-FLUOROBIPHENYL	219	356.9	61.3	45-130
TERPHENYL-D14	324	356.9	90.7	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B137	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	258	333.3	77.3	40-130
2-FLUOROBIPHENYL	240	333.3	72.0	45-130
TERPHENYL-D14	287	333.3	86.1	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 3550B/8270C SIM

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB023SB	SVB023SX	SVB023SY		
LAB FILE ID:	RBJ104	RBJ107	RBJ108		
DATE EXTRACTED:	02/16/1213:26	02/16/1213:26	02/16/1213:26	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1216:01	02/16/1216:57	02/16/1217:16	DATE RECEIVED:	02/16/12
PREP. BATCH:	SVB023S	SVB023S	SVB023S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	301	90	333	287	86	5	10-130	50
Acenaphthylene	ND	333	328	98	333	312	94	5	20-130	50
Anthracene	ND	333	282	85	333	269	81	5	20-130	50
Benzo(a)anthracene	ND	333	282	85	333	280	84	1	30-130	50
Benzo(a)pyrene	ND	333	298	89	333	283	85	5	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	304	91	2	40-130	50
Benzo(k)fluoranthene	ND	333	319	96	333	297	89	7	30-140	50
Benzo(g,h,i)perylene	ND	333	313	94	333	302	91	3	30-140	50
Chrysene	ND	333	271	81	333	272	82	0	30-140	50
Dibenzo(a,h)anthracene	ND	333	320	96	333	309	93	3	40-140	50
Fluoranthene	ND	333	298	90	333	292	87	2	30-130	50
Fluorene	ND	333	326	98	333	309	93	5	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	323	97	333	312	94	3	20-160	50
Naphthalene	ND	333	274	82	333	264	79	4	10-130	50
Phenanthrene	ND	333	286	86	333	275	82	4	20-130	50
Pyrene	ND	333	286	86	333	279	84	2	20-150	50
2-Methylnaphthalene	ND	333	298	89	333	287	86	4	30-150	50
1-Methylnaphthalene	ND	333	299	90	333	288	86	4	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	297	89	333	293	88	1	30-130	50
Butylbenzylphthalate	ND	333	283	85	333	280	84	1	30-150	50
Di-n-butylphthalate	ND	333	300	90	333	286	86	5	10-150	50
Di-n-octylphthalate	ND	333	298	90	333	281	84	6	20-150	50
Diethylphthalate	ND	333	338	101	333	317	95	6	30-150	50
Dimethylphthalate	ND	333	333	100	333	315	95	5	30-150	50
N-Nitrosodimethylamine	ND	333	255	76	333	248	74	3	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	273	82	333	263	79	40-130
2-Fluorobiphenyl	333	256	77	333	242	73	45-130
Terphenyl-d14	333	279	84	333	269	81	45-135

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/16/12 15:58
Sample ID: SL-148-SA5C-SB-40.5	Date Analyzed: 02/16/12 15:58
Lab Samp ID: B137-01	Dilution Factor: 0.91
Lab File ID: EB15038A	Matrix : SOIL
Ext Btch ID: GMB006S	% Moisture : 5.3
Calib. Ref.: EB15027A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.96	0.48

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.44	1.922	75.1	60-130

RL : Reporting Limit
Methanol Extraction: 02/15/12 15:09

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B137	Date Extracted: 02/16/12 13:52
Sample ID: MBLK1S	Date Analyzed: 02/16/12 13:52
Lab Samp ID: GMB006SB	Dilution Factor: 1
Lab File ID: EB15035A	Matrix : SOIL
Ext Btch ID: GMB006S	% Moisture : NA
Calib. Ref.: EB15027A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.74	2.000	87.1	60-130

RL : Reporting Limit
Methanol Extraction: 02/15/12 15:09

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB006SB	GMB006SL	GMB006SC		
LAB FILE ID:	EB15035A	EB15036A	EB15037A		
DATE EXTRACTED:	02/16/1213:52	02/16/1214:34	02/16/1215:16	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1213:52	02/16/1214:34	02/16/1215:16	DATE RECEIVED:	02/16/12
PREP. BATCH:	GMB006S	GMB006S	GMB006S		
CALIB. REF:	EB15027A	EB15027A	EB15027A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	23.1	92	25.0	22.9	92	1	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	1.91	96	2.00	1.86	93	60-130

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/22/12 06:36
Sample ID: TB-021412	Date Analyzed: 02/22/12 06:36
Lab Samp ID: B137-03R	Dilution Factor: 1
Lab File ID: EB21030A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	18J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.8	40.00	84.5	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B137	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/15/12 10:30
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/15/12 17:06
Lab Samp ID: B137-02	Dilution Factor: 1
Lab File ID: BB15018A	Matrix : SOIL
Ext Btch ID: MEB002S	% Moisture : 6.6
Calib. Ref.: BB15014A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	540	270
ISOPROPANOL	ND	540	270
METHANOL	ND	540	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B137	Date Extracted: 02/15/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/15/12 16:15
Lab Samp ID: MEB002SB	Dilution Factor: 1
Lab File ID: BB15015A	Matrix : SOIL
Ext Btch ID: MEB002S	% Moisture : NA
Calib. Ref.: BB15014A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB002SB	MEB002SL	MEB002SC		
LAB FILE ID:	BB15015A	BB15016A	BB15017A		
DATE EXTRACTED:	02/15/1210:30	02/15/1210:30	02/15/1210:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/15/1216:15	02/15/1216:31	02/15/1216:49	DATE RECEIVED:	02/15/12
PREP. BATCH:	MEB002S	MEB002S	MEB002S		
CALIB. REF:	BB15014A	BB15014A	BB15014A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	7780	78	10000	8500	85	9	50-150	50
Isopropanol	ND	10000	8370	84	10000	8960	90	7	50-150	50
Methanol	ND	10000	7490	75	10000	7980	80	6	50-150	50

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/15/12 10:30
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/15/12 13:57
Lab Samp ID: B137-02	Dilution Factor: 1
Lab File ID: BB15008A	Matrix : SOIL
Ext Btch ID: PEB002S	% Moisture : 6.6
Calib. Ref.: BB15003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.0
ETHYLENE GLYCOL	ND	11	5.4
PROPYLENE GLYCOL	ND	11	5.4

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/15/12
Batch No. : 12B137	Date Extracted: 02/15/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/15/12 12:10
Lab Samp ID: PEB002SB	Dilution Factor: 1
Lab File ID: BB15004A	Matrix : SOIL
Ext Btch ID: PEB002S	% Moisture : NA
Calib. Ref.: BB15003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 8015M

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: PEB002SB PEB002SL PEB002SY
LAB FILE ID: BB15004A BB15005A BB15007A
DATE EXTRACTED: 02/15/1210:30 02/15/1210:30 02/15/1210:30 DATE COLLECTED: NA
DATE ANALYZED: 02/15/1212:10 02/15/1212:29 02/15/1213:28 DATE RECEIVED: 02/15/12
PREP. BATCH: PEB002S PEB002S PEB002S
CALIB. REF: BB15003A BB15003A BB15003A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	53.5	107	50.0	61.9	124	15	50-150	50
Ethylene Glycol	ND	50.0	54.2	108	50.0	59.9	120	10	50-150	50
Propylene Glycol	ND	25.0	26.1	105	25.0	28.0	112	7	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/17/12 15:15
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/17/12 19:47
Lab Samp ID: B137-02R	Dilution Factor: 1
Lab File ID: LB17012A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : 6.6
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	1.5	1.1	0.54
EFH(C12-C14)	ND	1.1	0.54
EFH(C15-C20)	0.69J	1.1	0.54
EFH(C21-C30)	19	1.1	0.54
EFH(C30-C40)	22	1.1	0.54
TOTAL EFH(C8-C40)	43	1.1	0.54

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.06	10.71	84.6	50-150
HEXACOSANE	2.68	2.677	100	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B137	Date Extracted: 02/17/12 15:15
Sample ID: MBLK1S	Date Analyzed: 02/17/12 17:49
Lab Samp ID: DSB021SB	Dilution Factor: 1
Lab File ID: LB17005A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : NA
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.61J	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	0.61J	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.55	10.00	95.5	50-150
HEXACOSANE	2.59	2.500	104	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB021SB	DSB021SL	DSB021SC		
LAB FILE ID:	LB17005A	LB17006A	LB17007A		
DATE EXTRACTED:	02/17/1215:15	02/17/1215:15	02/17/1215:15	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1217:49	02/17/1218:06	02/17/1218:23	DATE RECEIVED:	02/17/12
PREP. BATCH:	DSB021S	DSB021S	DSB021S		
CALIB. REF:	LB17003A	LB17003A	LB17003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	0.612J	50.0	60.5	121	50.0	57.6	115	5	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	10.3	103	10.0	9.43	94	50-150
Hexacosane	2.50	2.88	115	2.50	2.58	103	50-150

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/16/12 14:21
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/20/12 09:49
Lab Samp ID: B137-02W	Dilution Factor: 1
Lab File ID: KB20006A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : 6.6
Calib. Ref.: KB20002A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.8	0.91|0.91
AROCLOR 1221	(ND)|ND	1.8	0.91|0.91
AROCLOR 1232	(ND)|ND	1.8	0.91|0.91
AROCLOR 1242	(ND)|ND	1.8	0.91|0.91
AROCLOR 1248	(200)|130	1.8	0.91|0.91
AROCLOR 1254	(ND)|ND	1.8	0.91|0.91
AROCLOR 1260	(ND)|ND	1.8	0.91|0.91
AROCLOR 1262	(ND)|ND	1.8	0.91|0.91
AROCLOR 1268	(ND)|ND	1.8	0.91|0.91
AROCLOR 5432	(ND)|ND	3.5	1.8|1.8
AROCLOR 5442	(ND)|ND	3.5	1.8|1.8
AROCLOR 5460	(ND)|ND	3.5	1.8|1.8

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(4.587)|3.010	5.710	(80.3)|52.7	45-120
TETRACHLORO-M-XYLENE	(5.382)|3.654	5.710	(94.3)|64.0	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B137	Date Extracted: 02/16/12 14:21
Sample ID: MBLK1S	Date Analyzed: 02/17/12 19:20
Lab Samp ID: 60B032SB	Dilution Factor: 1
Lab File ID: KB17018A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : NA
Calib. Ref.: KB17014A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.626)|4.256	5.333	(105)|79.8	45-120
TETRACHLORO-M-XYLENE	(5.721)|4.635	5.333	(107)|86.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 3550B/8082

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B032SB	60B032SL	60B032SC		
LAB FILE ID:	KB17018A	KB17019A	KB17020A		
DATE EXTRACTED:	02/16/1214:21	02/16/1214:21	02/16/1214:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:20	02/17/1220:16	02/17/1221:12	DATE RECEIVED:	02/16/12
PREP. BATCH:	CPB032S	CPB032S	CPB032S		
CALIB. REF:	KB17014A	KB17014A	KB17014A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(60.7)|52.1	(91)|78	66.7	(57.9)|52.9	(87)|79	(5)|2	50-130	50
Aroclor 1260	(ND)|ND	66.7	(69.2)|53.6	(104)|80	66.7	(69.0)|53.9	(103)|81	(0)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(59.2)|53.0	(89)|79	66.7	(56.9)|51.4	(85)|77	(4)|3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.568)|4.212	(104)|79.0	5.333	(5.281)|4.032	(99.0)|75.6	45-120
Tetrachloro-m-xylene	5.333	(5.495)|4.669	(103)|87.6	5.333	(5.136)|4.358	(96.3)|81.7	10-160

METHOD 8330A
EXPLOSIVES

Client	: CDM	Date Collected	: 02/14/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/14/12
Batch No.	: 12B137	Date Extracted	: 02/22/12 18:07
Sample ID	: SL-148-SA5C-SB-40.0-41.0	Date Analyzed	: 02/23/12 19:58
Lab Samp ID	: B137-02	Dilution Factor	: 1
Lab File ID	: PB23019A	Matrix	: SOIL
Ext Btch ID	: EXB010S	% Moisture	: NA
Calib. Ref.	: PB23009A	Instrument ID	: T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	105	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B137	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:11
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB23015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	107	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 8330A

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SL	EXB010SC		
LAB FILE ID:	PB23015A	PB23016A	PB23017A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:11	02/23/1217:53	02/23/1218:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2230	112	2000	2220	111	0	70-130	50
RDX	ND	2000	2120	106	2000	2120	106	0	70-130	50
1,3,5-Trinitrobenzene	ND	2000	2250	113	2000	2250	112	0	70-130	50
1,3-Dinitrobenzene	ND	2000	2040	102	2000	2060	103	1	70-130	50
Tetryl	ND	2000	1780	89	2000	1760	88	1	70-130	50
Nitrobenzene	ND	2000	2090	104	2000	2120	106	2	70-140	50
2,4,6-Trinitrotoluene	ND	2000	1870	93	2000	1960	98	5	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	2000	2130	106	2000	2160	108	1	70-130	50
2-Amino-4,6-Dinitrotoluene	ND	2000	2280	114	2000	2250	113	1	70-130	50
2,6-Dinitrotoluene	ND	2000	2330	117	2000	2280	114	2	70-130	50
2,4-Dinitrotoluene	ND	2000	2150	108	2000	2110	105	2	70-130	50
2-Nitrotoluene	ND	2000	2150	108	2000	2180	109	1	70-130	50
3-Nitrotoluene	ND	2000	2110	106	2000	2100	105	0	70-130	50
4-Nitrotoluene	ND	2000	2110	105	2000	2080	104	1	70-140	50
2,4-Diamino-6-nitrotoluene	ND	2000	2000	100	2000	1960	98	2	30-150	50
2,6-Diamino-4-nitrotoluene	ND	2000	2060	103	2000	2030	101	2	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2120	106	2000	2190	109	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/14/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/14/12
Batch No. : 12B137	Date Extracted: 02/22/12 18:07
Sample ID: SL-148-SA5C-SB-40.0-41.0	Date Analyzed: 02/24/12 10:44
Lab Samp ID: B137-02	Dilution Factor: 1
Lab File ID: PB24007A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2420	2000	121	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client	: CDM	Date Collected	: NA
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
Batch No.	: 12B137	Date Extracted	: 02/22/12 18:07
Sample ID	: MBLK1S	Date Analyzed	: 02/24/12 09:48
Lab Samp ID	: EXB010SB	Dilution Factor	: 1
Lab File ID	: PB24003A	Matrix	: SOIL
Ext Btch ID	: EXB010S	% Moisture	: NA
Calib. Ref.	: PB24002A	Instrument ID	: T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2480	2000	124	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: Method 8332

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SX	EXB010SY		
LAB FILE ID:	PB24003A	PB24004A	PB24005A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1209:48	02/24/1210:02	02/24/1210:16	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB24002A	PB24002A	PB24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7500	7810	104	7500	7750	103	1	50-150	50
PETN	ND	7500	8030	107	7500	7820	104	3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2430	121	2000	2350	117	65-135

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/14/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/14/12
SDG NO.	: 12B137	Date Extracted	: 02/17/12 10:51
Sample ID	: SL-148-SA5C-SB-40.0-41.0	Date Analyzed	: 02/24/12 18:09
Lab Samp ID	: B137-02	Dilution Factor	: 0.990
Lab File ID	: 98B14050	Matrix	: SOIL
Ext Btch ID	: IMB016S	% Moisture	: 6.6
Calib. Ref.	: 98B14040	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	9890	25.4	12.7
Antimony	0.107J	0.212	0.106
Arsenic	2.69	0.424	0.212
Barium	92.8	0.424	0.212
Beryllium	0.345	0.106	0.0530
Boron	ND	5.30	2.65
Cadmium	0.112	0.106	0.0530
Calcium	3400	21.2	10.6
Chromium	17.2	0.424	0.212
Cobalt	4.83	0.106	0.0530
Copper	9.43	0.424	0.212
Iron	18000	21.2	10.6
Lead	3.61	0.212	0.106
Magnesium	3800	10.6	5.30
Manganese	235	0.530	0.265
Molybdenum	1.77	0.106	0.0530
Nickel	6.49	0.424	0.212
Potassium	2910	63.6	31.8
Selenium	ND	0.424	0.212
Silver	ND	0.106	0.0530
Sodium	325	106	53.0
Strontium	24.7	0.530	0.265
Thallium	0.220	0.106	0.0530
Tin	ND	10.6	5.30
Titanium	1030	1.06	0.530
Vanadium	28.5	0.106	0.0530
Zinc	44.2	3.18	1.59
Lithium	15.3	2.12	1.06
Phosphorus	425	12.7	6.36
Zirconium	ND	5.30	2.65

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
SDG NO. : 12B137	Date Extracted: 02/17/12 10:51
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:13
Lab Samp ID: IMB016SB	Dilution Factor: 1
Lab File ID: 98B14042	Matrix : SOIL
Ext Btch ID: IMB016S	% Moisture : NA
Calib. Ref.: 98B14040	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B137
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB016SB	IMB016SL	IMB016SC		
LAB FILE ID:	98B14042	98B14043	98B14044		
DATIME EXTRCTD:	02/17/1210:51	02/17/1210:51	02/17/1210:51	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1217:13	02/24/1217:20	02/24/1217:27	DATE RECEIVED:	02/17/12
PREP. BATCH:	IMB016S	IMB016S	IMB016S		
CALIB. REF:	98B14040	98B14040	98B14040		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2500	100	2500	2540	101	1	80-120	20
Antimony	ND	25.0	25.2	101	25.0	24.9	100	1	80-120	20
Arsenic	ND	25.0	24.1	97	25.0	24.7	99	2	80-120	20
Barium	ND	25.0	25.0	100	25.0	24.6	99	1	80-120	20
Beryllium	ND	25.0	25.8	103	25.0	25.1	100	3	80-120	20
Boron	ND	25.0	26.1	104	25.0	25.7	103	2	80-120	20
Cadmium	ND	25.0	24.8	99	25.0	24.4	98	2	80-120	20
Calcium	ND	2500	2590	104	2500	2600	104	0	80-120	20
Chromium	ND	25.0	24.7	99	25.0	24.6	98	0	80-120	20
Cobalt	ND	25.0	24.4	97	25.0	24.8	99	2	80-120	20
Copper	ND	25.0	24.3	97	25.0	24.1	97	1	80-120	20
Iron	ND	2500	2580	103	2500	2570	103	0	80-120	20
Lead	ND	25.0	25.0	100	25.0	25.1	100	0	80-120	20
Magnesium	ND	2500	2440	98	2500	2500	100	3	80-120	20
Manganese	ND	25.0	25.1	101	25.0	25.1	101	0	80-120	20
Molybdenum	ND	25.0	24.7	99	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	24.2	97	0	80-120	20
Potassium	ND	2500	2590	104	2500	2620	105	1	80-120	20
Selenium	ND	25.0	24.2	97	25.0	24.3	97	1	80-120	20
Silver	ND	25.0	25.0	100	25.0	24.4	98	2	80-120	20
Sodium	ND	2500	2470	99	2500	2450	98	1	80-120	20
Strontium	ND	25.0	25.3	101	25.0	25.5	102	1	80-120	20
Thallium	ND	25.0	25.0	100	25.0	25.4	102	2	80-120	20
Tin	ND	25.0	27.2	109	25.0	27.1	109	0	80-120	20
Titanium	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Vanadium	ND	25.0	24.7	99	25.0	24.6	98	1	80-120	20
Zinc	ND	50.0	47.3	95	50.0	47.4	95	0	80-120	20
Lithium	ND	25.0	25.7	103	25.0	24.9	100	3	80-120	20
Phosphorus	ND	250	239	96	250	242	97	1	80-120	20
Zirconium	ND	25.0	26.2	105	25.0	26.4	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B137
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1
DILTN FACTR: 0.962 0.962
SAMPLE ID: SL-146-SA5C-SB-47.5-48.5
CONTROL NO.: B130-02 B130-02A
LAB FILE ID: 98B14048 98B14047
DATIME EXTRCTD: 02/17/1210:51 02/17/1210:51 DATE COLLECTED: 02/13/12
DATIME ANALYZD: 02/24/1217:55 02/24/1217:48 DATE RECEIVED: 02/13/12
PREP. BATCH: IMB016S IMB016S
CALIB. REF: 98B14040 98B14040

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	6610	2680	9020	90	75-125
Antimony	ND	26.8	26.0	97	75-125
Arsenic	2.32	26.8	26.8	92	75-125
Barium	49.3	26.8	74.7	95	75-125
Beryllium	0.293	26.8	26.7	99	75-125
Boron	ND	26.8	27.5	103	75-125
Cadmium	0.102J	26.8	25.4	95	75-125
Calcium	2420	2680	4990	96	75-125
Chromium	8.85	26.8	33.1	90	75-125
Cobalt	2.91	26.8	27.2	91	75-125
Copper	4.47	26.8	28.2	89	75-125
Iron	12900	2680	15200	87	75-125
Lead	3.05	26.8	28.5	95	75-125
Magnesium	2540	2680	4900	88	75-125
Manganese	167	26.8	188	81	75-125
Molybdenum	0.495	26.8	26.6	97	75-125
Nickel	4.66	26.8	28.5	89	75-125
Potassium	2000	2680	4680	100	75-125
Selenium	ND	26.8	25.4	95	75-125
Silver	ND	26.8	25.4	95	75-125
Sodium	219	2680	2710	93	75-125
Strontium	9.63	26.8	36.1	99	75-125
Thallium	0.228	26.8	26.6	98	75-125
Tin	ND	26.8	29.2	109	75-125
Titanium	677	26.8	699	82	75-125
Vanadium	17.4	26.8	41.6	91	75-125
Zinc	40.6	53.5	88.7	90	75-125
Lithium	15.4	26.8	41.4	97	75-125
Phosphorus	308	268	583	103	75-125
Zirconium	ND	26.8	28.2	105	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1

DILUTION FACTOR:	0.962	4.81
SAMPLE ID:	SL-146-SA5C-SB	SL-146-SA5C-SB
EMAX SAMP ID:	B130-02	B130-02J
LAB FILE ID:	98B14048	98B14049
DATE EXTRACTED:	02/17/1210:51	02/17/1210:51
DATE ANALYZED:	02/24/1217:55	02/24/1218:02
PREP. BATCH:	IMB016S	IMB016S
CALIB. REF:	98B14040	98B14040

DATE COLLECTED: 02/13/12
DATE RECEIVED: 02/13/12

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	6610	6910	5	10
Antimony	ND	ND	0	10
Arsenic	2.32	2.45	6	10
Barium	49.3	47.8	3	10
Beryllium	0.293	ND	NA	10
Boron	ND	ND	0	10
Cadmium	0.102J	ND	NA	10
Calcium	2420	2530	5	10
Chromium	8.85	8.95	1	10
Cobalt	2.91	2.96	2	10
Copper	4.47	4.48	0	10
Iron	12900	13300	3	10
Lead	3.05	3.08	1	10
Magnesium	2540	2680	5	10
Manganese	167	170	2	10
Molybdenum	0.495	0.499J	NA	10
Nickel	4.66	4.62	1	10
Potassium	2000	2010	1	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	219	ND	NA	10
Strontium	9.63	9.60	0	10
Thallium	0.228	0.404J	NA	10
Tin	ND	ND	0	10
Titanium	677	661	2	10
Vanadium	17.4	17.2	1	10
Zinc	40.6	40.9	1	10
Lithium	15.4	13.9	9	10
Phosphorus	308	314	2	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB017SB	ND	1	NA	0.100	0.0500	02/21/1217:00	02/21/1213:00	M47B014012	M47B014010	HGB017S	NA	02/21/12
LCS1S	HGB017SL	0.877	1	NA	0.100	0.0500	02/21/1217:02	02/21/1213:00	M47B014013	M47B014010	HGB017S	NA	02/21/12
LCD1S	HGB017SC	0.877	1	NA	0.100	0.0500	02/21/1217:04	02/21/1213:00	M47B014014	M47B014010	HGB017S	NA	02/21/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1.00	6.6	0.107	0.0535	02/21/1217:25	02/21/1213:00	M47B014024	M47B014022	HGB017S	02/14/12	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B137
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB017SB	HGB017SL	HGB017SC		
LAB FILE ID:	M47B014012	M47B014013	M47B014014		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	NA
DATIME ANALYZD:	02/21/1217:00	02/21/1217:02	02/21/1217:04	DATE RECEIVED:	02/21/12
PREP. BATCH:	HGB017S	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010	M47B014010		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.877	105	.833	.877	105	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B137
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	5.4
DILTN FACTR:	1.00	1.00		
SAMPLE ID:	129178-25-0152			
CONTROL NO.:	B171-01	B171-01A		
LAB FILE ID:	M47B014016	M47B014015		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATIME ANALYZD:	02/21/1217:08	02/21/1217:06	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.881	.893	101	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	5.4
DILUTION FACTOR:	1.00	5.02		
SAMPLE ID:	129178-25-0152	129178-25-0152DL		
EMAX SAMP ID:	B171-01	B171-01J		
LAB FILE ID:	M47B014016	M47B014017		
DATE EXTRACTED:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATE ANALYZED:	02/21/1217:08	02/21/1217:10	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.00	0.500	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	5.95	1	NA	1.00	0.500	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	5.91	1	NA	1.00	0.500	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-148-SA5C-SB-40.0-41.0	B137-02	5.15	1	6.6	1.07	0.535	02/16/1217:35	02/16/1212:37	AB21-28	AB21-20	ICB002S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.95	99	6.00	5.91	98	1	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	19.5	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	19.4	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1	6.6	1.61	0.803	02/16/1217:35	02/16/1212:37	AB21-28	AB21-20	ICB002S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.5	99	19.7	19.4	98	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	26.1	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	26.1	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1	6.6	1.61	0.803	02/16/1217:35	02/16/1212:37	AB21-28	AB21-20	ICB002S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.1	98	26.6	26.1	98	0	90-110	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB002SB	ND	1	NA	20.0	10.0	02/17/1214:55	02/17/1209:45	JB17009	JB17008	PCB002S	NA	02/17/12
LCS1S	PCB002SL	240	1	NA	20.0	10.0	02/17/1215:37	02/17/1209:45	JB17011	JB17008	PCB002S	NA	02/17/12
LCD1S	PCB002SC	236	1	NA	20.0	10.0	02/17/1215:59	02/17/1209:45	JB17012	JB17008	PCB002S	NA	02/17/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1	6.6	21.4	10.7	02/17/1217:31	02/17/1209:45	JB17015	JB17008	PCB002S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB002SB	PCB002SL	PCB002SC		
LAB FILE ID:	JB17009	JB17011	JB17012		
DATE EXTRACTED:	02/17/1209:45	02/17/1209:45	02/17/1209:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1214:55	02/17/1215:37	02/17/1215:59	DATE RECEIVED:	02/17/12
PREP. BATCH:	PCB002S	PCB002S	PCB002S		
CALIB. REF:	JB17008	JB17008	JB17008		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	240	96	250	236	94	2	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB002SB	ND	1	NA	1.00	0.500	02/17/1218:27	02/17/1214:19	IB17010	IB17008	HCB002S	NA	02/17/12
MBLK1S	HCB002SQ	ND	1	NA	1.00	0.500	02/17/1218:37	02/17/1214:19	IB17011	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SL	8.61	1	NA	1.00	0.500	02/17/1219:09	02/17/1214:19	IB17012	IB17008	CSB002S	NA	02/17/12
LCS1S	CSB002SX	8.96	1	NA	1.00	0.500	02/17/1219:19	02/17/1214:19	IB17013	IB17008	CSB002S	NA	02/17/12
LCS2S	CIB002SL	125	10	NA	10.0	5.00	02/17/1219:29	02/17/1214:19	IB17014	IB17008	CIB002S	NA	02/17/12
LCS2S	CIB002SX	125	10	NA	10.0	5.00	02/17/1219:40	02/17/1214:19	IB17015	IB17008	CIB002S	NA	02/17/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1	6.6	1.07	0.535	02/17/1220:11	02/17/1214:19	IB17018	IB17008	CIB002S	02/14/1212:10	02/14/12
SL-148-SA5C-SB-40.0-41.0RE	B137-02R	ND	1	6.6	1.07	0.535	02/17/1220:21	02/17/1214:19	IB17019	IB17008	CIB002S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	10		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CIB002SL		
LAB FILE ID:	IB17010	IB17014		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:29	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CIB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B137
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CSB002SL		
LAB FILE ID:	IB17010	IB17012		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:09	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CSB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.61	86	80-120

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137

Matrix : SOIL
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CNB008SB	ND	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00810	CNB00808	CNB008S	NA	02/17/12
LCS1S	CNB008SL	2.45	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00811	CNB00808	CNB008S	NA	02/17/12
LCD1S	CNB008SC	2.49	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00812	CNB00808	CNB008S	NA	02/17/12
SL-148-SA5C-SB-40.0-41.0	B137-02	ND	1	6.6	0.535	0.268	02/17/1216:18	02/17/1209:30	CNB00821	CNB00818	CNB008S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B137
SAMPLE ID: LCS1S/LCD1S
CONTROL NO.: CNB008SL/C

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 09:30
DATE ANALYZED: 02/17/12 16:17/16:17

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	2.50	2.45	98	2.50	2.49	100	2	85-125	20

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B137
Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-148-SA5C-SB-40.0-41.0	B137-02	8.78	1	6.6	NA	NA	02/15/1210:14	02/15/1210:14	12PHB020S01	PHB020S	PHB020S	02/14/1212:10	02/14/12
SL-148-SA5C-SB-40.0-41.0DUP	B137-02D	8.79	1	6.6	NA	NA	02/15/1210:14	02/15/1210:14	12PHB020S02	PHB020S	PHB020S	02/14/1212:10	02/14/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B137 DATE RECEIVED: 02/14/12
SAMPLE ID: SL-148-SA5C-SB-40.0-41.0DUP DATE EXTRACTED: 02/15/12 10:14
CONTROL NO.: B137-02D DATE ANALYZED: 02/15/12 10:14

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	8.78	8.79	0	5

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/16/12 19:34
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/16/12 19:34
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: RBV219	Matrix : WATER
Ext Btch ID: VO01B11	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.23	10.00	92.3	80-120
4-BROMOFLUOROBENZENE	11.2	10.00	112	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	9.82	10.00	98.2	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/16/12 18:37
Sample ID: MBLK1W	Date Analyzed: 02/16/12 18:37
Lab Samp ID: VO01B11B	Dilution Factor: 1
Lab File ID: RBV217	Matrix : WATER
Ext Btch ID: VO01B11	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.61	10.00	96.1	80-120
4-BROMOFLUOROBENZENE	11.3	10.00	113	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	10.2	10.00	102	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01B11B	VO01B11L	VO01B11C		
LAB FILE ID:	RBV217	RBV214	RBV215		
DATE EXTRACTED:	02/16/1218:37	02/16/1217:13	02/16/1217:41	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1218:37	02/16/1217:13	02/16/1217:41	DATE RECEIVED:	02/16/12
PREP. BATCH:	VO01B11	VO01B11	VO01B11		
CALIB. REF:	RJV602	RJV602	RJV602		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.1	101	10.0	10.4	104	3	70-130	30
1,1,1-Trichloroethane	ND	10.0	11.0	110	10.0	10.6	106	3	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.0	100	10.0	11.0	110	9	70-130	30
1,1,2-Trichloroethane	ND	10.0	9.54	95	10.0	10.3	103	8	70-130	30
1,1-Dichloroethane	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
1,1-Dichloroethene	ND	10.0	9.39	94	10.0	9.22	92	2	60-130	30
1,1-Dichloropropene	ND	10.0	11.2	112	10.0	10.8	108	3	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	7.82	78	10.0	8.84	88	12	60-130	30
1,2,3-Trichloropropane	ND	10.0	10.2	102	10.0	10.9	109	7	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	7.76	78	10.0	8.62	86	11	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	11.0	110	10.0	10.7	107	3	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.36	84	10.0	9.26	93	10	60-130	30
1,2-Dichlorobenzene	ND	10.0	10.4	104	10.0	10.7	107	2	70-130	30
1,2-Dichloroethane	ND	10.0	9.88	99	10.0	10.4	104	5	70-130	30
1,2-Dichloropropane	ND	10.0	10.1	101	10.0	10.2	102	2	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	8.78	88	10.0	9.56	96	9	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	11.0	110	10.0	10.3	103	6	70-130	30
1,3-Dichlorobenzene	ND	10.0	11.0	110	10.0	10.9	109	1	70-130	30
1,3-Dichloropropane	ND	10.0	9.49	95	10.0	10.2	102	7	70-130	30
1,4-Dichlorobenzene	ND	10.0	10.7	107	10.0	10.9	109	2	70-130	30
2,2-Dichloropropane	ND	10.0	11.0	110	10.0	10.6	106	4	50-140	30
2-Chlorotoluene	ND	10.0	11.3	113	10.0	10.6	106	6	70-130	30
4-Chlorotoluene	ND	10.0	11.2	112	10.0	10.8	108	4	70-130	30
Benzene	ND	10.0	10.2	102	10.0	9.80	98	4	70-130	30
Bromobenzene	ND	10.0	10.3	103	10.0	10.3	103	1	70-130	30
Bromochloromethane	ND	10.0	8.89	89	10.0	9.68	97	9	70-130	30
Bromodichloromethane	ND	10.0	9.84	98	10.0	9.93	99	1	70-130	30
Bromoform	ND	10.0	10.9	109	10.0	11.4	114	4	60-140	30
Bromomethane	ND	10.0	9.17	92	10.0	8.61	86	6	50-140	30
Carbon Tetrachloride	ND	10.0	11.7	117	10.0	10.9	109	7	70-130	30
Chlorobenzene	ND	10.0	10.4	104	10.0	10.7	107	2	70-120	30
Chloroethane	ND	10.0	9.19	92	10.0	8.51	85	8	70-140	30
Chloroform	ND	10.0	9.91	99	10.0	10.2	102	3	70-130	30
Chloromethane	ND	10.0	9.76	98	10.0	9.12	91	7	60-130	30
cis-1,2-Dichloroethene	ND	10.0	9.05	90	10.0	9.25	93	2	70-130	30
cis-1,3-Dichloropropene	ND	10.0	10.2	102	10.0	10.5	105	3	70-130	30
Dibromochloromethane	ND	10.0	9.86	99	10.0	10.6	106	7	70-130	30
Dibromomethane	ND	10.0	9.24	92	10.0	10.0	100	8	70-140	30
Dichlorodifluoromethane	ND	10.0	9.16	92	10.0	8.66	87	6	50-140	30
Ethylbenzene	ND	10.0	10.3	103	10.0	10.2	102	0	70-130	30
Hexachlorobutadiene	ND	10.0	9.56	96	10.0	9.49	95	1	60-140	30
Isopropyl Benzene	ND	10.0	12.5	125	10.0	11.6	116	8	70-150	30
m,p-Xylene	ND	20.0	20.3	102	20.0	20.4	102	0	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	8.98	90	10.0	10.3	103	14	70-140	30
Methylene Chloride	ND	10.0	9.28	93	10.0	9.62	96	4	70-130	30
n-Butylbenzene	ND	10.0	10.8	108	10.0	10.3	103	4	60-130	30
n-Propylbenzene	ND	10.0	11.8	118	10.0	11.1	111	6	70-140	30
o-Xylene	ND	10.0	10.1	101	10.0	9.93	99	1	70-130	30

p-Isopropyltoluene	ND	10.0	11.6	116	10.0	11.2	112	4	70-140	30
Sec-Butylbenzene	ND	10.0	11.9	119	10.0	11.4	114	5	70-130	30
Styrene	ND	10.0	10.2	102	10.0	10.3	103	2	70-130	30
Tert-Butylbenzene	ND	10.0	12.2	122	10.0	11.4	114	7	70-130	30
Tetrachloroethene	ND	10.0	11.0	110	10.0	10.4	104	5	70-130	30
Toluene	ND	10.0	10.3	103	10.0	10.1	101	2	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	9.47	95	10.0	9.49	95	0	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	9.86	99	10.0	10.6	106	7	70-140	30
Trichloroethene	ND	10.0	11.2	112	10.0	10.9	109	2	70-130	30
Trichlorofluoromethane	ND	10.0	9.93	99	10.0	9.26	93	7	70-140	30
Vinyl Chloride	ND	10.0	8.90	89	10.0	8.11	81	9	60-150	30
Acetone	ND	50.0	41.8	84	50.0	48.3	97	14	50-150	30
2-Butanone (MEK)	ND	50.0	46.5	93	50.0	54.1	108	15	60-140	30
2-Hexanone	ND	50.0	47.9	96	50.0	55.2	110	14	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	49.1	98	50.0	56.8	114	15	60-140	30
Freon113	ND	10.0	10.2	102	10.0	10.1	101	1	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	9.77	98	10.0	11.3	113	14	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	13.3	133	10.0	12.1	121	9	50-150	30
Chlorotrifluoroethylene	ND	10.0	11.3	113	10.0	9.91	99	13	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.98	90	10.0	9.30	93	80-120
4-Bromofluorobenzene	10.0	10.8	108	10.0	10.1	101	86-115
Toluene-d8	10.0	10.1	101	10.0	9.80	98	88-110
Dibromofluoromethane	10.0	9.76	98	10.0	9.87	99	86-118

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/21/12 20:24
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/21/12 20:24
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: RBY342	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	4.14	5.000	82.8	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B145	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/21/12 11:45
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/23/12 14:45
Lab Samp ID: B145-01	Dilution Factor: 1.04
Lab File ID: RBJ169	Matrix : WATER
Ext Btch ID: SVB027W	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5.2
1,2-DICHLOROBENZENE	ND	10	5.2
1,3-DICHLOROBENZENE	ND	10	5.2
1,4-DICHLOROBENZENE	ND	10	5.2
2,4,5-TRICHLOROPHENOL	ND	10	5.2
2,4,6-TRICHLOROPHENOL	ND	10	5.2
2,4-DICHLOROPHENOL	ND	10	5.2
2,4-DIMETHYLPHENOL	ND	10	5.2
2,4-DINITROPHENOL	ND	21	5.2
2,4-DINITROTOLUENE	ND	10	5.2
2,6-DINITROTOLUENE	ND	10	5.2
2-CHLORONAPHTHALENE	ND	10	5.2
2-CHLOROPHENOL	ND	10	5.2
2-METHYLNAPHTHALENE	ND	10	5.2
2-METHYLPHENOL	ND	10	5.2
2-NITROANILINE	ND	10	5.2
2-NITROPHENOL	ND	10	5.2
3,3'-DICHLOROBENZIDINE	ND	10	5.2
3-NITROANILINE	ND	10	5.2
4,6-DINITRO-2-METHYLPHENOL	ND	21	5.2
4-BROMOPHENYL-PHENYLETHER	ND	10	5.2
4-CHLORO-3-METHYLPHENOL	ND	10	5.2
4-CHLOROANILINE	ND	10	5.2
4-CHLOROPHENYL-PHENYLETHER	ND	10	5.2
4-METHYLPHENOL (1)	ND	10	5.2
4-NITROANILINE	ND	10	5.2
4-NITROPHENOL	ND	21	5.2
ACENAPHTHENE	ND	10	5.2
ACENAPHTHYLENE	ND	10	5.2
ANTHRACENE	ND	10	5.2
BENZO(A)ANTHRACENE	ND	10	5.2
BENZO(A)PYRENE	ND	10	5.2
BENZO(B)FLUORANTHENE	ND	10	5.2
BENZO(K)FLUORANTHENE	ND	10	5.2
BENZO(G,H,I)PERYLENE	ND	10	5.2
BIS(2-CHLOROETHOXY)METHANE	ND	10	5.2
BIS(2-CHLOROETHYL)ETHER	ND	10	5.2
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5.2
BIS(2-ETHYLHEXYL)PHTHALATE	ND	21	5.2
BUTYLBENZYLPHTHALATE	ND	10	5.2
CHRYSENE	ND	10	5.2
DI-N-BUTYLPHTHALATE	ND	10	5.2
DI-N-OCTYLPHTHALATE	ND	10	5.2
DIBENZO(A,H)ANTHRACENE	ND	10	5.2
DIBENZOFURAN	ND	10	5.2
DIETHYLPHTHALATE	ND	10	5.2
DIMETHYLPHTHALATE	ND	10	5.2
FLUORANTHENE	ND	10	5.2
FLUORENE	ND	10	5.2
HEXACHLOROBENZENE	ND	10	5.2
HEXACHLOROBUTADIENE	ND	10	5.2
HEXACHLOROCYCLOPENTADIENE	ND	21	5.2
HEXACHLOROETHANE	ND	10	5.2
INDENO(1,2,3-CD)PYRENE	ND	10	5.2
ISOPHORONE	ND	10	5.2
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5.2
N-NITROSODIPHENYLAMINE (2)	ND	10	5.2
NAPHTHALENE	ND	10	5.2
NITROBENZENE	ND	10	5.2
PENTACHLOROPHENOL	ND	21	5.2
PHENANTHRENE	ND	10	5.2
PHENOL	ND	10	5.2
PYRENE	ND	10	5.2
BENZYL ALCOHOL	ND	10	5.2
1-METHYLNAPHTHALENE	ND	10	5.2
1,2-DIPHENYLHYDRAZINE	ND	10	5.2
3,5-DIMETHYLPHENOL	ND	21	5.2
ANILINE	ND	21	10
BENZIDINE	ND	52	21
BENZOIC ACID	ND	42	21
CARBAZOLE	ND	10	5.2
N-NITROSODIMETHYLAMINE	ND	10	5.2
TETRALIN	ND	10	10
2-BUTOXYETHANOL	ND	10	10
2-PHENOXYETHANOL	ND	10	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	47.3	62.40	75.8	30-130
2-FLUOROBIPHENYL	14.6	20.80	70.0	45-130
2-FLUOROPHENOL	38.9	62.40	62.4	20-130
NITROBENZENE-D5	14.0	20.80	67.4	40-130
PHENOL-D5	41.6	62.40	66.6	20-120
TERPHENYL-D14	17.2	20.80	82.7	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B145	Date Extracted: 02/21/12 11:45
Sample ID: MBLK1W	Date Analyzed: 02/23/12 13:11
Lab Samp ID: SVB027WB	Dilution Factor: 1
Lab File ID: RBJ164	Matrix : WATER
Ext Btch ID: SVB027W	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5.0
1,2-DICHLOROBENZENE	ND	10	5.0
1,3-DICHLOROBENZENE	ND	10	5.0
1,4-DICHLOROBENZENE	ND	10	5.0
2,4,5-TRICHLOROPHENOL	ND	10	5.0
2,4,6-TRICHLOROPHENOL	ND	10	5.0
2,4-DICHLOROPHENOL	ND	10	5.0
2,4-DIMETHYLPHENOL	ND	10	5.0
2,4-DINITROPHENOL	ND	20	5.0
2,4-DINITROTOLUENE	ND	10	5.0
2,6-DINITROTOLUENE	ND	10	5.0
2-CHLORONAPHTHALENE	ND	10	5.0
2-CHLOROPHENOL	ND	10	5.0
2-METHYLNAPHTHALENE	ND	10	5.0
2-METHYLPHENOL	ND	10	5.0
2-NITROANILINE	ND	10	5.0
2-NITROPHENOL	ND	10	5.0
3,3'-DICHLOROBENZIDINE	ND	10	5.0
3-NITROANILINE	ND	10	5.0
4,6-DINITRO-2-METHYLPHENOL	ND	20	5.0
4-BROMOPHENYL-PHENYLETHER	ND	10	5.0
4-CHLORO-3-METHYLPHENOL	ND	10	5.0
4-CHLOROANILINE	ND	10	5.0
4-CHLOROPHENYL-PHENYLETHER	ND	10	5.0
4-METHYLPHENOL (1)	ND	10	5.0
4-NITROANILINE	ND	10	5.0
4-NITROPHENOL	ND	20	5.0
ACENAPHTHENE	ND	10	5.0
ACENAPHTHYLENE	ND	10	5.0
ANTHRACENE	ND	10	5.0
BENZO(A)ANTHRACENE	ND	10	5.0
BENZO(A)PYRENE	ND	10	5.0
BENZO(B)FLUORANTHENE	ND	10	5.0
BENZO(K)FLUORANTHENE	ND	10	5.0
BENZO(G,H,I)PERYLENE	ND	10	5.0
BIS(2-CHLOROETHOXY)METHANE	ND	10	5.0
BIS(2-CHLOROETHYL)ETHER	ND	10	5.0
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5.0
BIS(2-ETHYLHEXYL)PHTHALATE	ND	20	5.0
BUTYLBENZYLPHTHALATE	ND	10	5.0
CHRYSENE	ND	10	5.0
DI-N-BUTYLPHTHALATE	ND	10	5.0
DI-N-OCTYLPHTHALATE	ND	10	5.0
DIBENZO(A,H)ANTHRACENE	ND	10	5.0
DIBENZOFURAN	ND	10	5.0
DIETHYLPHTHALATE	ND	10	5.0
DIMETHYLPHTHALATE	ND	10	5.0
FLUORANTHENE	ND	10	5.0
FLUORENE	ND	10	5.0
HEXACHLOROBENZENE	ND	10	5.0
HEXACHLOROBUTADIENE	ND	10	5.0
HEXACHLOROCYCLOPENTADIENE	ND	20	5.0
HEXACHLOROETHANE	ND	10	5.0
INDENO(1,2,3-CD)PYRENE	ND	10	5.0
ISOPHORONE	ND	10	5.0
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5.0
N-NITROSODIPHENYLAMINE (2)	ND	10	5.0
NAPHTHALENE	ND	10	5.0
NITROBENZENE	ND	10	5.0
PENTACHLOROPHENOL	ND	20	5.0
PHENANTHRENE	ND	10	5.0
PHENOL	ND	10	5.0
PYRENE	ND	10	5.0
BENZYL ALCOHOL	ND	10	5.0
1-METHYLNAPHTHALENE	ND	10	5.0
1,2-DIPHENYLHYDRAZINE	ND	10	5.0
3,5-DIMETHYLPHENOL	ND	20	5.0
ANILINE	ND	20	10
BENZIDINE	ND	50	20
BENZOIC ACID	ND	40	20
CARBAZOLE	ND	10	5.0
N-NITROSODIMETHYLAMINE	ND	10	5.0
TETRALIN	ND	10	10
2-BUTOXYETHANOL	ND	10	10
2-PHENOXYETHANOL	ND	10	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	38.4	60.00	64.0	30-130
2-FLUOROBIPHENYL	12.5	20.00	62.4	45-130
2-FLUOROPHENOL	35.8	60.00	59.7	20-130
NITROBENZENE-D5	12.2	20.00	60.9	40-130
PHENOL-D5	35.5	60.00	59.2	20-120
TERPHENYL-D14	14.9	20.00	74.5	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 3520C/8270C

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: SVB027WB SVB027WL SVB027WC
LAB FILE ID: RBJ164 RBJ165 RBJ166
DATE EXTRACTED: 02/21/1211:45 02/21/1211:45 02/21/1211:45 DATE COLLECTED: NA
DATE ANALYZED: 02/23/1213:11 02/23/1213:29 02/23/1213:48 DATE RECEIVED: 02/21/12
PREP. BATCH: SVB027W SVB027W SVB027W
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	40.0	29.1	73	40.0	28.6	71	2	30-130	30
1,2-Dichlorobenzene	ND	40.0	29.9	75	40.0	29.6	74	1	30-130	30
1,3-Dichlorobenzene	ND	40.0	29.5	74	40.0	28.6	72	3	30-130	30
1,4-Dichlorobenzene	ND	40.0	29.3	73	40.0	29.2	73	0	30-130	30
2,4,5-Trichlorophenol	ND	40.0	32.5	81	40.0	32.8	82	1	30-130	30
2,4,6-Trichlorophenol	ND	40.0	32.7	82	40.0	32.5	81	1	30-130	30
2,4-Dichlorophenol	ND	40.0	31.5	79	40.0	30.7	77	3	40-130	30
2,4-Dimethylphenol	ND	40.0	30.6	76	40.0	29.7	74	3	30-130	30
2,4-Dinitrophenol	ND	40.0	32.4	81	40.0	28.9	72	12	30-130	30
2,4-Dinitrotoluene	ND	40.0	39.6	99	40.0	35.2	88	12	40-130	30
2,6-Dinitrotoluene	ND	40.0	35.8	90	40.0	33.9	85	6	40-130	30
2-Chloronaphthalene	ND	40.0	34.0	85	40.0	33.2	83	2	40-130	30
2-Chlorophenol	ND	40.0	30.5	76	40.0	30.0	75	1	30-130	30
2-Methylnaphthalene	ND	40.0	33.0	82	40.0	32.7	82	1	40-130	30
2-Methylphenol	ND	40.0	30.6	77	40.0	31.1	78	1	30-130	30
2-Nitroaniline	ND	40.0	34.9	87	40.0	33.1	83	5	40-130	30
2-Nitrophenol	ND	40.0	32.6	82	40.0	32.6	81	0	40-130	30
3,3'-Dichlorobenzidine	ND	40.0	35.0	88	40.0	32.0	80	9	20-140	30
3-Nitroaniline	ND	40.0	33.9	85	40.0	30.5	76	10	30-130	30
4,6-Dinitro-2-Methylphenol	ND	40.0	38.3	96	40.0	35.0	87	9	40-130	30
4-Bromophenyl-phenylether	ND	40.0	33.8	85	40.0	33.9	85	0	50-130	30
4-Chloro-3-Methylphenol	ND	40.0	31.8	79	40.0	32.8	82	3	30-130	30
4-Chloroaniline	ND	40.0	28.8	72	40.0	28.7	72	1	30-130	30
4-Chlorophenyl-phenylether	ND	40.0	33.3	83	40.0	32.5	81	3	50-130	30
4-Methylphenol	ND	40.0	34.9	87	40.0	32.0	80	9	30-130	30
4-Nitroaniline	ND	40.0	36.2	91	40.0	35.6	89	2	30-130	30
4-Nitrophenol	ND	40.0	33.0	83	40.0	28.5	71	15	30-130	30
Acenaphthene	ND	40.0	33.5	84	40.0	32.9	82	2	40-130	30
Acenaphthylene	ND	40.0	34.2	85	40.0	33.3	83	2	40-130	30
Anthracene	ND	40.0	34.6	86	40.0	33.5	84	3	50-130	30
Benzo(a)anthracene	ND	40.0	36.1	90	40.0	34.0	85	6	50-130	30
Benzo(a)pyrene	ND	40.0	34.5	86	40.0	31.9	80	8	50-130	30
Benzo(b)fluoranthene	ND	40.0	35.5	89	40.0	34.9	87	2	40-140	30
Benzo(k)fluoranthene	ND	40.0	36.7	92	40.0	33.9	85	8	40-130	30
Benzo(g,h,i)perylene	ND	40.0	36.8	92	40.0	35.6	89	3	40-130	30
bis(2-Chloroethoxy)methane	ND	40.0	30.4	76	40.0	30.8	77	1	40-130	30
bis(2-Chloroethyl)ether	ND	40.0	30.9	77	40.0	30.5	76	1	30-130	30
bis(2-Chloroisopropyl)ether	ND	40.0	31.9	80	40.0	31.6	79	1	20-130	30
bis(2-Ethylhexyl)phthalate	ND	40.0	40.9	102	40.0	38.9	97	5	20-140	30
Butylbenzylphthalate	ND	40.0	41.5	104	40.0	38.5	96	7	40-130	30
Chrysene	ND	40.0	37.3	93	40.0	34.8	87	7	40-130	30
Di-n-butylphthalate	ND	40.0	40.4	101	40.0	37.0	93	9	30-160	30
Di-n-octylphthalate	ND	40.0	39.7	99	40.0	37.9	95	5	20-150	30
Dibenzo(a,h)anthracene	ND	40.0	36.9	92	40.0	35.5	89	4	40-130	30
Dibenzofuran	ND	40.0	33.4	84	40.0	33.1	83	1	40-130	30
Diethylphthalate	ND	40.0	38.7	97	40.0	35.6	89	8	30-140	30
Dimethylphthalate	ND	40.0	36.9	92	40.0	35.1	88	5	30-130	30
Fluoranthene	ND	40.0	38.4	96	40.0	35.5	89	8	40-130	30

Fluorene	ND	40.0	34.7	87	40.0	34.2	86	1	40-130	30
Hexachlorobenzene	ND	40.0	36.3	91	40.0	35.2	88	3	30-130	30
Hexachlorobutadiene	ND	40.0	29.7	74	40.0	28.6	71	4	10-130	30
Hexachlorocyclopentadiene	ND	40.0	21.4	54	40.0	20.1	50	6	10-130	30
Hexachloroethane	ND	40.0	28.5	71	40.0	28.2	71	1	20-130	30
Indeno(1,2,3-cd)pyrene	ND	40.0	37.0	92	40.0	35.1	88	5	50-130	30
Isophorone	ND	40.0	34.3	86	40.0	33.6	84	2	40-130	30
n-Nitroso-di-n-propylamine	ND	40.0	32.8	82	40.0	31.5	79	4	30-130	30
n-Nitrosodiphenylamine	ND	40.0	27.4	69	40.0	26.6	66	3	10-150	30
Naphthalene	ND	40.0	31.7	79	40.0	31.5	79	1	20-130	30
Nitrobenzene	ND	40.0	33.3	83	40.0	32.3	81	3	30-130	30
Pentachlorophenol	ND	40.0	35.0	88	40.0	31.7	79	10	30-130	30
Phenanthrene	ND	40.0	36.3	91	40.0	34.6	87	5	40-130	30
Phenol	ND	40.0	30.3	76	40.0	30.1	75	1	20-130	30
Pyrene	ND	40.0	35.2	88	40.0	33.3	83	6	40-130	30
Benzyl Alcohol	ND	40.0	33.7	84	40.0	34.5	86	2	30-130	30
1-Methylnaphthalene	ND	40.0	33.2	83	40.0	33.1	83	0	40-130	30
1,2-Diphenylhydrazine	ND	40.0	34.1	85	40.0	34.8	87	2	30-130	30
3,5-Dimethylphenol	ND	40.0	34.6	87	40.0	34.3	86	1	20-150	30
Aniline	ND	40.0	24.7	62	40.0	24.6	61	0	10-130	30
Benzidine	ND	80.0	41.5	52	80.0	22.9	29	57*	20-130	30
Benzoic Acid	ND	80.0	46.0	58	80.0	41.8	52	10	10-130	30
Carbazole	ND	40.0	37.2	93	40.0	33.8	84	9	50-130	30
N-Nitrosodimethylamine	ND	40.0	31.3	78	40.0	32.0	80	2	30-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	60.0	49.1	82	60.0	49.7	83	30-130
2-Fluorobiphenyl	20.0	14.4	72	20.0	14.8	74	45-130
2-Fluorophenol	60.0	38.1	64	60.0	38.9	65	20-130
Nitrobenzene-d5	20.0	13.9	69	20.0	14.4	72	40-130
Phenol-d5	60.0	40.8	68	60.0	42.3	70	20-120
Terphenyl-d14	20.0	17.4	87	20.0	17.3	86	45-135

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/17/12 07:14
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/17/12 07:14
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: EB15060A	Matrix : WATER
Ext Btch ID: VA39B11	% Moisture : NA
Calib. Ref.: EB15052A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	15J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	34.9	40.00	87.4	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/16/12 18:03
Sample ID: MBLK1W	Date Analyzed: 02/16/12 18:03
Lab Samp ID: VA39B11B	Dilution Factor: 1
Lab File ID: EB15041A	Matrix : WATER
Ext Btch ID: VA39B11	% Moisture : NA
Calib. Ref.: EB15039A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.6	40.00	84.0	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B11B	VA39B11L	VA39B11C		
LAB FILE ID:	EB15041A	EB15043A	EB15044A		
DATE EXTRACTED:	02/16/1218:03	02/16/1219:26	02/16/1220:08	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1218:03	02/16/1219:26	02/16/1220:08	DATE RECEIVED:	02/16/12
PREP. BATCH:	VA39B11	VA39B11	VA39B11		
CALIB. REF:	EB15039A	EB15039A	EB15039A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	504	101	500	509	102	1	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	40.7	102	40.0	39.5	99	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/17/12 11:32
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/17/12 11:32
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: BB17008A	Matrix : WATER
Ext Btch ID: MEB001W	% Moisture : NA
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	1000	500
ISOPROPANOL	ND	1000	500
METHANOL	ND	1000	500

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B145	Date Extracted: 02/17/12 10:16
Sample ID: MBLK1W	Date Analyzed: 02/17/12 10:16
Lab Samp ID: MEB001WB	Dilution Factor: 1
Lab File ID: BB17004A	Matrix : WATER
Ext Btch ID: MEB001W	% Moisture : NA
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	1000	500
ISOPROPANOL	ND	1000	500
METHANOL	ND	1000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 8015B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	MEB001WB	MEB001WL	MEB001WY		
LAB FILE ID:	BB17004A	BB17005A	BB17007A		
DATE EXTRACTED:	02/17/1210:16	02/17/1210:32	02/17/1211:05	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1210:16	02/17/1210:32	02/17/1211:05	DATE RECEIVED:	02/17/12
PREP. BATCH:	MEB001W	MEB001W	MEB001W		
CALIB. REF:	BB17003A	BB17003A	BB17003A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9730	97	10000	8090	81	18	50-150	30
Isopropanol	ND	10000	8550	85	10000	9120	91	6	50-150	30
Methanol	ND	10000	7150	72	10000	7600	76	6	50-150	30

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/17/12 18:50
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/17/12 18:50
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: BB17026A	Matrix : WATER
Ext Btch ID: PEB001W	% Moisture : NA
Calib. Ref.: BB17022A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIETHYLENE GLYCOL	ND	10	5.0
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	2.5

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B145	Date Extracted: 02/17/12 17:51
Sample ID: MBLK1W	Date Analyzed: 02/17/12 17:51
Lab Samp ID: PEB001WB	Dilution Factor: 1
Lab File ID: BB17023A	Matrix : WATER
Ext Btch ID: PEB001W	% Moisture : NA
Calib. Ref.: BB17022A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIETHYLENE GLYCOL	ND	10	5.0
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	2.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 8015M

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PEB001WB	PEB001WL	PEB001WC		
LAB FILE ID:	BB17023A	BB17024A	BB17025A		
DATE EXTRACTED:	02/17/1217:51	02/17/1218:02	02/17/1218:16	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1217:51	02/17/1218:02	02/17/1218:16	DATE RECEIVED:	02/17/12
PREP. BATCH:	PEB001W	PEB001W	PEB001W		
CALIB. REF:	BB17022A	BB17022A	BB17022A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	66.3	133	50.0	67.2	134	1	50-150	30
Ethylene Glycol	ND	50.0	71.9	144	50.0	67.0	134	7	50-150	30
Propylene Glycol	ND	25.0	30.1	120	25.0	28.4	114	6	50-150	30

METHOD 3520C/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/21/12 12:15
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/22/12 12:44
Lab Samp ID: B145-01	Dilution Factor: 1.01
Lab File ID: LB22008A	Matrix : WATER
Ext Btch ID: DSB022W	% Moisture : NA
Calib. Ref.: LB22003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
EFH(C8-C11)	ND	0.51	0.10
EFH(C12-C14)	ND	0.51	0.10
EFH(C15-C20)	ND	0.51	0.10
EFH(C21-C30)	ND	0.51	0.10
EFH(C30-C40)	ND	0.51	0.10
TOTAL EFH(C8-C40)	ND	0.51	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	0.747	1.010	74.0	40-130
HEXACOSANE	0.219	0.2525	86.8	40-150

RL : Reporting Limit

METHOD 3520C/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B145	Date Extracted: 02/21/12 12:15
Sample ID: MBLK1W	Date Analyzed: 02/22/12 11:53
Lab Samp ID: DSB022WB	Dilution Factor: 1
Lab File ID: LB22005A	Matrix : WATER
Ext Btch ID: DSB022W	% Moisture : NA
Calib. Ref.: LB22003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
EFH(C8-C11)	ND	0.50	0.10
EFH(C12-C14)	ND	0.50	0.10
EFH(C15-C20)	ND	0.50	0.10
EFH(C21-C30)	ND	0.50	0.10
EFH(C30-C40)	ND	0.50	0.10
TOTAL EFH(C8-C40)	ND	0.50	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	0.810	1.000	81.0	40-130
HEXACOSANE	0.230	0.2500	92.0	40-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 3520C/8015B EFH

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSB022WB	DSB022WL	DSB022WC		
LAB FILE ID:	LB22005A	LB22006A	LB22007A		
DATE EXTRACTED:	02/21/1212:15	02/21/1212:15	02/21/1212:15	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1211:53	02/22/1212:10	02/22/1212:27	DATE RECEIVED:	02/21/12
PREP. BATCH:	DSB022W	DSB022W	DSB022W		
CALIB. REF:	LB22003A	LB22003A	LB22003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	5.00	5.20	104	5.00	4.96	99	5	20-150	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1.00	0.853	85	1.00	0.843	84	40-130
Hexacosane	0.250	0.229	92	0.250	0.227	91	40-150

METHOD 3520C/8082
PCBs

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/21/12 13:30
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/22/12 20:33
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: KB22024A	Matrix : WATER
Ext Btch ID: CPB039W	% Moisture : NA
Calib. Ref.: KB22016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
AROCLOR 1016	(ND)|ND	1.0	0.50|0.50
AROCLOR 1221	(ND)|ND	1.0	0.50|0.50
AROCLOR 1232	(ND)|ND	1.0	0.50|0.50
AROCLOR 1242	(ND)|ND	1.0	0.50|0.50
AROCLOR 1248	(ND)|ND	1.0	0.50|0.50
AROCLOR 1254	(ND)|ND	1.0	0.50|0.50
AROCLOR 1260	(ND)|ND	1.0	0.50|0.50
AROCLOR 1262	(ND)|ND	1.0	0.50|0.50
AROCLOR 1268	(ND)|ND	1.0	0.50|0.50
AROCLOR 5432	(ND)|ND	2.0	1.0|1.0
AROCLOR 5442	(ND)|ND	2.0	1.0|1.0
AROCLOR 5460	(ND)|ND	2.0	1.0|1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(0.4239)|0.3022	0.4000	(106)|75.5	45-120
TETRACHLORO-M-XYLENE	(0.3471)|0.2896	0.4000	(86.8)|72.4	30-140

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3520C/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B145	Date Extracted: 02/21/12 13:30
Sample ID: MBLK1W	Date Analyzed: 02/22/12 17:48
Lab Samp ID: CPB039WB	Dilution Factor: 1
Lab File ID: KB22021A	Matrix : WATER
Ext Btch ID: CPB039W	% Moisture : NA
Calib. Ref.: KB22016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
AROCLOR 1016	(ND)|ND	1.0	0.50|0.50
AROCLOR 1221	(ND)|ND	1.0	0.50|0.50
AROCLOR 1232	(ND)|ND	1.0	0.50|0.50
AROCLOR 1242	(ND)|ND	1.0	0.50|0.50
AROCLOR 1248	(ND)|ND	1.0	0.50|0.50
AROCLOR 1254	(ND)|ND	1.0	0.50|0.50
AROCLOR 1260	(ND)|ND	1.0	0.50|0.50
AROCLOR 1262	(ND)|ND	1.0	0.50|0.50
AROCLOR 1268	(ND)|ND	1.0	0.50|0.50
AROCLOR 5432	(ND)|ND	2.0	1.0|1.0
AROCLOR 5442	(ND)|ND	2.0	1.0|1.0
AROCLOR 5460	(ND)|ND	2.0	1.0|1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(0.4110)|0.2966	0.4000	(103)|74.2	45-120
TETRACHLORO-M-XYLENE	(0.3249)|0.2847	0.4000	(81.2)|71.2	30-140

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	CPB039WB	60B039WX	60B039WY		
LAB FILE ID:	KB22021A	KB22022A	KB22023A		
DATE EXTRACTED:	02/21/1213:30	02/21/1213:30	02/21/1213:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1217:48	02/22/1218:43	02/22/1219:38	DATE RECEIVED:	02/21/12
PREP. BATCH:	CPB039W	CPB039W	CPB039W		
CALIB. REF:	KB22016A	KB22016A	KB22016A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	5.00	(4.72)|3.80	(94)|76	5.00	(4.79)|4.04	(96)|81	(1)|6	50-130	30
Aroclor 1260	(ND)|ND	5.00	(5.33)|3.83	(107)|77	5.00	(5.38)|4.00	(108)|80	(1)|4	60-150	30
Aroclor 5460	(ND)|ND	5.00	(4.69)|3.94	(94)|79	5.00	(4.76)|4.00	(95)|80	(1)|2	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	0.4000	(0.4355)|0.3076	(109)|76.9	0.4000	(0.4236)|0.3052	(106)|76.3	45-120
Tetrachloro-m-xylene	0.4000	(0.4164)|0.3004	(104)|75.1	0.4000	(0.3930)|0.2978	(98.3)|74.4	30-140

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/17/12 14:46
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/23/12 16:29
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: PB23014A	Matrix : WATER
Ext Btch ID: EXB009W	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TRINITROBENZENE	ND	1.0	0.20
1,3-DINITROBENZENE	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TRINITROTOLUENE	ND	1.0	0.20
4-AMINO-2,6-DINITROTOLUENE	ND	1.0	0.20
2-AMINO-4,6-DINITROTOLUENE	ND	1.0	0.20
2,6-DINITROTOLUENE	ND	1.0	0.20
2,4-DINITROTOLUENE	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20
2,4-DIAMINO-6-NITROTOLUENE	ND	2.0	1.0
2,6-DIAMINO-4-NITROTOLUENE	ND	2.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	3.76	4.000	93.9	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B145	Date Extracted: 02/17/12 14:46
Sample ID: MBLK1W	Date Analyzed: 02/23/12 14:23
Lab Samp ID: EXB009WB	Dilution Factor: 1
Lab File ID: PB23011A	Matrix : WATER
Ext Btch ID: EXB009W	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TRINITROBENZENE	ND	1.0	0.20
1,3-DINITROBENZENE	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TRINITROTOLUENE	ND	1.0	0.20
4-AMINO-2,6-DINITROTOLUENE	ND	1.0	0.20
2-AMINO-4,6-DINITROTOLUENE	ND	1.0	0.20
2,6-DINITROTOLUENE	ND	1.0	0.20
2,4-DINITROTOLUENE	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20
2,4-DIAMINO-6-NITROTOLUENE	ND	2.0	1.0
2,6-DIAMINO-4-NITROTOLUENE	ND	2.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	4.17	4.000	104	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 8330A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	EXB009WB	EXB009WL	EXB009WC		
LAB FILE ID:	PB23011A	PB23012A	PB23013A		
DATE EXTRACTED:	02/17/1214:46	02/17/1214:46	02/17/1214:46	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1214:23	02/23/1215:05	02/23/1215:47	DATE RECEIVED:	02/17/12
PREP. BATCH:	EXB009W	EXB009W	EXB009W		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	4.00	3.54	89	4.00	3.71	93	5	70-130	30
RDX	ND	4.00	3.08	77	4.00	3.30	82	7	60-130	30
1,3,5-Trinitrobenzene	ND	4.00	3.32	83	4.00	3.62	90	8	70-130	30
1,3-Dinitrobenzene	ND	4.00	3.23	81	4.00	3.14	79	3	70-130	30
Tetryl	ND	4.00	3.50	88	4.00	3.28	82	7	70-130	30
Nitrobenzene	ND	4.00	3.02	75	4.00	3.15	79	4	70-130	30
2,4,6-Trinitrotoluene	ND	4.00	3.81	95	4.00	3.91	98	3	70-130	30
4-Amino-2,6-Dinitrotoluene	ND	4.00	4.68	117	4.00	3.67	92	24	70-130	30
2-Amino-4,6-Dinitrotoluene	ND	4.00	4.15	104	4.00	3.86	96	7	70-130	30
2,6-Dinitrotoluene	ND	4.00	3.71	93	4.00	4.10	103	10	70-130	30
2,4-Dinitrotoluene	ND	4.00	3.68	92	4.00	3.79	95	3	70-130	30
2-Nitrotoluene	ND	4.00	4.00	100	4.00	3.58	89	11	70-130	30
3-Nitrotoluene	ND	4.00	4.33	108	4.00	3.54	88	20	70-130	30
4-Nitrotoluene	ND	4.00	3.89	97	4.00	3.37	84	14	70-130	30
2,4-Diamino-6-nitrotoluene	ND	4.00	1.64J	41	4.00	1.47J	37	11	20-130	30
2,6-Diamino-4-nitrotoluene	ND	4.00	1.45J	36	4.00	1.60J	40	10	20-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	4.00	3.61	90	4.00	4.10	102	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B145	Date Extracted: 02/17/12 14:46
Sample ID: EB-SA5C-SB-021512	Date Analyzed: 02/23/12 10:39
Lab Samp ID: B145-01	Dilution Factor: 1
Lab File ID: PB23006A	Matrix : WATER
Ext Btch ID: EXB008W	% Moisture : NA
Calib. Ref.: PB23002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
NITROGLYCERIN	ND	250	120
PETN	ND	250	120

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	587	500.0	117	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B145	Date Extracted: 02/17/12 14:46
Sample ID: MBLK1W	Date Analyzed: 02/23/12 09:57
Lab Samp ID: EXB008WB	Dilution Factor: 1
Lab File ID: PB23003A	Matrix : WATER
Ext Btch ID: EXB008W	% Moisture : NA
Calib. Ref.: PB23002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
NITROGLYCERIN	ND	250	120
PETN	ND	250	120

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	572	500.0	114	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: Method 8332

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	EXB008WB	EXB008WL	EXB008WC		
LAB FILE ID:	PB23003A	PB23004A	PB23005A		
DATE EXTRACTED:	02/17/1214:46	02/17/1214:46	02/17/1214:46	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1209:57	02/23/1210:11	02/23/1210:25	DATE RECEIVED:	02/17/12
PREP. BATCH:	EXB008W	EXB008W	EXB008W		
CALIB. REF:	PB23002A	PB23002A	PB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	1870	1950	104	1870	1940	104	0	50-150	30
PETN	ND	1870	1940	103	1870	1860	99	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	500	564	113	500	567	113	65-135

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B145	Date Extracted	: 02/21/12 10:47
Sample ID	: EB-SA5C-SB-021512	Date Analyzed	: 02/24/12 23:55
Lab Samp ID	: B145-01	Dilution Factor	: 1
Lab File ID	: 98B14099	Matrix	: WATER
Ext Btch ID	: IMB017W	% Moisture	: NA
Calib. Ref.	: 98B14093	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Aluminum	ND	0.100	0.0200
Antimony	ND	0.00100	0.000500
Arsenic	ND	0.00100	0.000200
Barium	ND	0.00100	0.000500
Beryllium	ND	0.00100	0.000100
Boron	ND	0.0100	0.00500
Cadmium	ND	0.00100	0.000200
Calcium	ND	0.100	0.0250
Chromium	ND	0.00100	0.000200
Cobalt	ND	0.00100	0.000200
Copper	ND	0.00100	0.000500
Iron	ND	0.100	0.0100
Lead	ND	0.00100	0.000100
Magnesium	ND	0.100	0.0100
Manganese	ND	0.00100	0.000200
Molybdenum	ND	0.00200	0.000500
Nickel	ND	0.00100	0.000200
Potassium	ND	0.100	0.0200
Selenium	ND	0.00100	0.000300
Silver	ND	0.00100	0.000200
Sodium	ND	0.100	0.0500
Strontium	ND	0.00200	0.00100
Thallium	ND	0.00100	0.000200
Tin	ND	0.00100	0.000200
Titanium	ND	0.00200	0.000500
Vanadium	ND	0.00100	0.000500
Zinc	ND	0.0200	0.0100
Lithium	ND	0.00200	0.000500
Phosphorus	ND	0.0500	0.0250
Zirconium	ND	0.00500	0.00200

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
SDG NO. : 12B145	Date Extracted: 02/21/12 10:47
Sample ID: MBLK1W	Date Analyzed: 02/24/12 23:27
Lab Samp ID: IMB017WB	Dilution Factor: 1
Lab File ID: 98B14095	Matrix : WATER
Ext Btch ID: IMB017W	% Moisture : NA
Calib. Ref.: 98B14093	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Aluminum	ND	0.100	0.0200
Antimony	ND	0.00100	0.000500
Arsenic	ND	0.00100	0.000200
Barium	ND	0.00100	0.000500
Beryllium	ND	0.00100	0.000100
Boron	ND	0.0100	0.00500
Cadmium	ND	0.00100	0.000200
Calcium	ND	0.100	0.0250
Chromium	ND	0.00100	0.000200
Cobalt	ND	0.00100	0.000200
Copper	ND	0.00100	0.000500
Iron	ND	0.100	0.0100
Lead	ND	0.00100	0.000100
Magnesium	ND	0.100	0.0100
Manganese	ND	0.00100	0.000200
Molybdenum	ND	0.00200	0.000500
Nickel	ND	0.00100	0.000200
Potassium	ND	0.100	0.0200
Selenium	ND	0.00100	0.000300
Silver	ND	0.00100	0.000200
Sodium	ND	0.100	0.0500
Strontium	ND	0.00200	0.00100
Thallium	ND	0.00100	0.000200
Tin	ND	0.00100	0.000200
Titanium	ND	0.00200	0.000500
Vanadium	ND	0.00100	0.000500
Zinc	ND	0.0200	0.0100
Lithium	ND	0.00200	0.000500
Phosphorus	ND	0.0500	0.0250
Zirconium	ND	0.00500	0.00200

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B145
METHOD: METHOD 6020

MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1W
CONTROL NO.: IMB017WB IMB017WL IMB017WC
LAB FILE ID: 98B14095 98B14096 98B14097
DATIME EXTRCTD: 02/21/1210:47 02/21/1210:47 02/21/1210:47 DATE COLLECTED: NA
DATIME ANALYZD: 02/24/1223:27 02/24/1223:34 02/24/1223:41 DATE RECEIVED: 02/21/12
PREP. BATCH: IMB017W IMB017W IMB017W
CALIB. REF: 98B14093 98B14093 98B14093

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2.50	2.67	107	2.50	2.66	107	0	80-120	20
Antimony	ND	0.0250	0.0253	101	0.0250	0.0250	100	1	80-120	20
Arsenic	ND	0.0250	0.0251	101	0.0250	0.0253	101	1	80-120	20
Barium	ND	0.0250	0.0248	99	0.0250	0.0244	98	2	80-120	20
Beryllium	ND	0.0250	0.0248	99	0.0250	0.0245	98	1	80-120	20
Boron	ND	0.0250	0.0252	101	0.0250	0.0256	102	2	80-120	20
Cadmium	ND	0.0250	0.0250	100	0.0250	0.0249	100	1	80-120	20
Calcium	ND	2.50	2.52	101	2.50	2.52	101	0	80-120	20
Chromium	ND	0.0250	0.0248	99	0.0250	0.0251	101	1	80-120	20
Cobalt	ND	0.0250	0.0244	98	0.0250	0.0245	98	0	80-120	20
Copper	ND	0.0250	0.0251	101	0.0250	0.0252	101	0	80-120	20
Iron	ND	2.50	2.70	108	2.50	2.70	108	0	80-120	20
Lead	ND	0.0250	0.0253	101	0.0250	0.0251	100	1	80-120	20
Magnesium	ND	2.50	2.65	106	2.50	2.65	106	0	80-120	20
Manganese	ND	0.0250	0.0248	99	0.0250	0.0248	99	0	80-120	20
Molybdenum	ND	0.0250	0.0251	100	0.0250	0.0249	99	1	80-120	20
Nickel	ND	0.0250	0.0249	99	0.0250	0.0250	100	1	80-120	20
Potassium	ND	2.50	2.56	102	2.50	2.57	103	1	80-120	20
Selenium	ND	0.0250	0.0263	105	0.0250	0.0265	106	1	80-120	20
Silver	ND	0.0250	0.0254	102	0.0250	0.0248	99	2	80-120	20
Sodium	ND	2.50	2.48	99	2.50	2.47	99	0	80-120	20
Strontium	ND	0.0250	0.0252	101	0.0250	0.0252	101	0	80-120	20
Thallium	ND	0.0250	0.0253	101	0.0250	0.0250	100	1	80-120	20
Tin	ND	0.0250	0.0252	101	0.0250	0.0251	100	0	80-120	20
Titanium	ND	0.0250	0.0253	101	0.0250	0.0252	101	0	80-120	20
Vanadium	ND	0.0250	0.0250	100	0.0250	0.0251	100	1	80-120	20
Zinc	ND	0.0500	0.0505	101	0.0500	0.0500	100	1	80-120	20
Lithium	ND	0.0250	0.0248	99	0.0250	0.0246	98	1	80-120	20
Phosphorus	ND	0.250	0.267	107	0.250	0.265	106	1	80-120	20
Zirconium	ND	0.0250	0.0284	114	0.0250	0.0276	110	3	80-120	20

METHOD 7470A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGB018WB	ND	1	NA	0.000500	0.000100	02/22/1217:03	02/22/1213:00	M47B015010	M47B015008	HGB018W	NA	02/22/12
LCS1W	HGB018WL	0.00509	1	NA	0.000500	0.000100	02/22/1217:05	02/22/1213:00	M47B015011	M47B015008	HGB018W	NA	02/22/12
LCD1W	HGB018WC	0.00516	1	NA	0.000500	0.000100	02/22/1217:07	02/22/1213:00	M47B015012	M47B015008	HGB018W	NA	02/22/12
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.000500	0.000100	02/22/1217:31	02/22/1213:00	M47B015023	M47B015020	HGB018W	02/15/12	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B145
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGB018WB	HGB018WL	HGB018WC		
LAB FILE ID:	M47B015010	M47B015011	M47B015012		
DATIME EXTRCTD:	02/22/1213:00	02/22/1213:00	02/22/1213:00	DATE COLLECTED:	NA
DATIME ANALYZD:	02/22/1217:03	02/22/1217:05	02/22/1217:07	DATE RECEIVED:	02/22/12
PREP. BATCH:	HGB018W	HGB018W	HGB018W		
CALIB. REF:	M47B015008	M47B015008	M47B015008		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.005	.00509	102	.005	.00516	103	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B145
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	12-04040			
CONTROL NO.:	B506-02	B506-02A		
LAB FILE ID:	M47B015014	M47B015013		
DATIME EXTRCTD:	02/22/1213:00	02/22/1213:00	DATE COLLECTED:	02/14/12
DATIME ANALYZD:	02/22/1217:11	02/22/1217:09	DATE RECEIVED:	02/16/12
PREP. BATCH:	HGB018W	HGB018W		
CALIB. REF:	M47B015008	M47B015008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Mercury	ND	.005	.00502	100	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	12-04040	12-04040DL		
EMAX SAMP ID:	B506-02	B506-02J		
LAB FILE ID:	M47B015014	M47B015031		
DATE EXTRACTED:	02/22/1213:00	02/22/1213:00	DATE COLLECTED:	02/14/12
DATE ANALYZED:	02/22/1217:11	02/22/1217:49	DATE RECEIVED:	02/16/12
PREP. BATCH:	HGB018W	HGB018W		
CALIB. REF:	M47B015008	M47B015020		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB033WB	ND	1	NA	0.100	0.0500	02/16/1210:51	NA	AB21-03	AB21-01	ICB033W	NA	NA
LCS1W	ICB033WL	1.98	1	NA	0.100	0.0500	02/16/1211:07	NA	AB21-04	AB21-01	ICB033W	NA	NA
LCD1W	ICB033WC	1.98	1	NA	0.100	0.0500	02/16/1211:23	NA	AB21-05	AB21-01	ICB033W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.100	0.0500	02/16/1211:40	NA	AB21-06	AB21-01	ICB033W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB033WB	ICB033WL	ICB033WC		
LAB FILE ID:	AB21-03	AB21-04	AB21-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1210:51	02/16/1211:07	02/16/1211:23	DATE RECEIVED:	NA
PREP. BATCH:	ICB033W	ICB033W	ICB033W		
CALIB. REF:	AB21-01	AB21-01	AB21-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	2.00	1.98	99	2.00	1.98	99	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145

Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB033WB	ND	1	NA	0.443	0.222	02/16/1210:51	NA	AB21-03	AB21-01	ICB033W	NA	NA
LCS1W	ICB033WL	8.73	1	NA	0.443	0.222	02/16/1211:07	NA	AB21-04	AB21-01	ICB033W	NA	NA
LCD1W	ICB033WC	8.69	1	NA	0.443	0.222	02/16/1211:23	NA	AB21-05	AB21-01	ICB033W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.443	0.222	02/16/1211:40	NA	AB21-06	AB21-01	ICB033W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB033WB	ICB033WL	ICB033WC		
LAB FILE ID:	AB21-03	AB21-04	AB21-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1210:51	02/16/1211:07	02/16/1211:23	DATE RECEIVED:	NA
PREP. BATCH:	ICB033W	ICB033W	ICB033W		
CALIB. REF:	AB21-01	AB21-01	AB21-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	8.86	8.73	99	8.86	8.69	98	0	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145

Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB033WB	ND	1	NA	0.329	0.164	02/16/1210:51	NA	AB21-03	AB21-01	ICB033W	NA	NA
LCS1W	ICB033WL	6.49	1	NA	0.329	0.164	02/16/1211:07	NA	AB21-04	AB21-01	ICB033W	NA	NA
LCD1W	ICB033WC	6.48	1	NA	0.329	0.164	02/16/1211:23	NA	AB21-05	AB21-01	ICB033W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.329	0.164	02/16/1211:40	NA	AB21-06	AB21-01	ICB033W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB033WB	ICB033WL	ICB033WC		
LAB FILE ID:	AB21-03	AB21-04	AB21-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1210:51	02/16/1211:07	02/16/1211:23	DATE RECEIVED:	NA
PREP. BATCH:	ICB033W	ICB033W	ICB033W		
CALIB. REF:	AB21-01	AB21-01	AB21-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	6.57	6.49	99	6.57	6.48	99	0	90-110	20

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HCB007WB	ND	1	NA	0.200	0.100	02/16/1214:35	NA	IB16012	IB16010	HCB007W	NA	NA
MBLK1W	HCB007WQ	ND	1	NA	0.200	0.100	02/16/1214:45	NA	IB16013	IB16010	HCB007W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.200	0.100	02/16/1214:55	NA	IB16014	IB16010	HCB007W	02/15/1215:30	02/16/12
EB-SA5C-SB-021512RE	B145-01R	ND	1	NA	0.200	0.100	02/16/1215:06	NA	IB16015	IB16010	HCB007W	02/15/1215:30	02/16/12
LCS1W	HCB007WL	1.99	1	NA	0.200	0.100	02/16/1215:16	NA	IB16016	IB16010	HCB007W	NA	NA
LCS1W	HCB007WX	1.94	1	NA	0.200	0.100	02/16/1215:27	NA	IB16017	IB16010	HCB007W	NA	NA
LCD1W	HCB007WC	1.87	1	NA	0.200	0.100	02/16/1215:37	NA	IB16018	IB16010	HCB007W	NA	NA
LCD1W	HCB007WY	1.89	1	NA	0.200	0.100	02/16/1215:58	NA	IB16019	IB16010	HCB007W	NA	NA

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 7199

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HCB007WQ	HCB007WX	HCB007WY		
LAB FILE ID:	IB16013	IB16017	IB16019		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1214:45	02/16/1215:27	02/16/1215:58	DATE RECEIVED:	NA
PREP. BATCH:	HCB007W	HCB007W	HCB007W		
CALIB. REF:	IB16010	IB16010	IB16010		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	2.00	1.94	97	2.00	1.89	94	3	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 7199

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HCB007WB	HCB007WL	HCB007WC		
LAB FILE ID:	IB16012	IB16016	IB16018		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1214:35	02/16/1215:16	02/16/1215:37	DATE RECEIVED:	NA
PREP. BATCH:	HCB007W	HCB007W	HCB007W		
CALIB. REF:	IB16010	IB16010	IB16010		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	2.00	1.99	100	2.00	1.87	93	6	80-120	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCB001WB	ND	1	NA	2.00	1.00	02/17/1212:12	NA	JB17002	JB17001	PCB001W	NA	NA
LCS1W	PCB001WL	23.5	1	NA	2.00	1.00	02/17/1212:54	NA	JB17004	JB17001	PCB001W	NA	NA
LCD1W	PCB001WC	23.4	1	NA	2.00	1.00	02/17/1213:15	NA	JB17005	JB17001	PCB001W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	2.00	1.00	02/17/1213:36	NA	JB17006	JB17001	PCB001W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCB001WB	PCB001WL	PCB001WC		
LAB FILE ID:	JB17002	JB17004	JB17005		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1212:12	02/17/1212:54	02/17/1213:15	DATE RECEIVED:	NA
PREP. BATCH:	PCB001W	PCB001W	PCB001W		
CALIB. REF:	JB17001	JB17001	JB17001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	23.5	94	25.0	23.4	94	0	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HCB007WB	ND	1	NA	0.200	0.100	02/16/1214:35	NA	IB16012	IB16010	HCB007W	NA	NA
MBLK1W	HCB007WQ	ND	1	NA	0.200	0.100	02/16/1214:45	NA	IB16013	IB16010	HCB007W	NA	NA
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.200	0.100	02/16/1214:55	NA	IB16014	IB16010	HCB007W	02/15/1215:30	02/16/12
EB-SA5C-SB-021512RE	B145-01R	ND	1	NA	0.200	0.100	02/16/1215:06	NA	IB16015	IB16010	HCB007W	02/15/1215:30	02/16/12
LCS1W	HCB007WL	1.99	1	NA	0.200	0.100	02/16/1215:16	NA	IB16016	IB16010	HCB007W	NA	NA
LCS1W	HCB007WX	1.94	1	NA	0.200	0.100	02/16/1215:27	NA	IB16017	IB16010	HCB007W	NA	NA
LCD1W	HCB007WC	1.87	1	NA	0.200	0.100	02/16/1215:37	NA	IB16018	IB16010	HCB007W	NA	NA
LCD1W	HCB007WY	1.89	1	NA	0.200	0.100	02/16/1215:58	NA	IB16019	IB16010	HCB007W	NA	NA

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B145
METHOD: 7199

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HCB007WB	HCB007WL	HCB007WC		
LAB FILE ID:	IB16012	IB16016	IB16018		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1214:35	02/16/1215:16	02/16/1215:37	DATE RECEIVED:	NA
PREP. BATCH:	HCB007W	HCB007W	HCB007W		
CALIB. REF:	IB16010	IB16010	IB16010		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	2.00	1.99	100	2.00	1.87	93	6	80-120	20

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145

Matrix : WATER
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	CNB009WB	ND	1	NA	0.0100	0.00500	02/17/1216:21	02/17/1214:00	CNB00910	CNB00908	CNB009W	NA	02/17/12
LCS1W	CNB009WL	0.0895	1	NA	0.0100	0.00500	02/17/1216:21	02/17/1214:00	CNB00911	CNB00908	CNB009W	NA	02/17/12
LCD1W	CNB009WC	0.0895	1	NA	0.0100	0.00500	02/17/1216:21	02/17/1214:00	CNB00912	CNB00908	CNB009W	NA	02/17/12
EB-SA5C-SB-021512	B145-01	ND	1	NA	0.0100	0.00500	02/17/1216:21	02/17/1214:00	CNB00913	CNB00908	CNB009W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 12B145
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: CNB009WL/C

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 14:00
DATE ANALYZED: 02/17/12 16:21/16:21

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	0.100	0.0895	90	0.100	0.0895	90	0	85-115	20

METHOD 9040C
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B145
Matrix : WATER
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
EB-SA5C-SB-021512	B145-01	5.69	1	NA	NA	NA	02/16/1211:14	02/16/1211:14	PHB023W01	PHB023W	PHB023W	02/15/1215:30	02/16/12
EB-SA5C-SB-021512DUP	B145-01D	5.67	1	NA	NA	NA	02/16/1211:17	02/16/1211:14	PHB023W02	PHB023W	PHB023W	02/15/1215:30	02/16/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9040C
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 12B145 DATE RECEIVED: 02/16/12
SAMPLE ID: EB-SA5C-SB-021512DUP DATE EXTRACTED: 02/16/12 11:14
CONTROL NO.: B145-01D DATE ANALYZED: 02/16/12 11:17

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	5.69	5.67	0.02	+/-0.1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 22:12
Sample ID: SL-147-SA5C-SB-55.5	Date Analyzed: 02/21/12 22:12
Lab Samp ID: B146-01	Dilution Factor: 0.87
Lab File ID: RBB321	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 10.9
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	4.9	0.98
1,1,1-TRICHLOROETHANE	ND	4.9	0.98
1,1,2,2-TETRACHLOROETHANE	ND	4.9	0.98
1,1,2-TRICHLOROETHANE	ND	4.9	0.98
1,1-DICHLOROETHANE	ND	4.9	0.98
1,1-DICHLOROETHENE	ND	4.9	0.98
1,1-DICHLOROPROPENE	ND	4.9	0.98
1,2,3-TRICHLOROBENZENE	ND	4.9	2.0
1,2,3-TRICHLOROPROPANE	ND	4.9	2.0
1,2,4-TRICHLOROBENZENE	ND	4.9	2.0
1,2,4-TRIMETHYLBENZENE	ND	4.9	0.98
1,2-DIBROMO-3-CHLOROPROPANE	ND	4.9	2.0
1,2-DICHLOROBENZENE	ND	4.9	0.98
1,2-DICHLOROETHANE	ND	4.9	0.98
1,2-DICHLOROPROPANE	ND	4.9	0.98
1,2-DIBROMOETHANE (EDB)	ND	4.9	0.98
1,3,5-TRIMETHYLBENZENE	ND	4.9	0.98
1,3-DICHLOROBENZENE	ND	4.9	0.98
1,3-DICHLOROPROPANE	ND	4.9	0.98
1,4-DICHLOROBENZENE	ND	4.9	0.98
2,2-DICHLOROPROPANE	ND	4.9	2.0
2-CHLOROTOLUENE	ND	4.9	0.98
4-CHLOROTOLUENE	ND	4.9	0.98
BENZENE	ND	4.9	0.98
BROMOBENZENE	ND	4.9	0.98
BROMOCHLOROMETHANE	ND	4.9	0.98
BROMODICHLOROMETHANE	ND	4.9	0.98
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	0.98
CHLOROBENZENE	ND	4.9	0.98
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	0.98
CHLOROMETHANE	ND	4.9	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	0.98
CIS-1,3-DICHLOROPROPENE	ND	4.9	0.98
DIBROMOCHLOROMETHANE	ND	4.9	0.98
DIBROMOMETHANE	ND	4.9	0.98
DICHLORODIFLUOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	0.98
HEXACHLOROBUTADIENE	ND	4.9	2.0
ISOPROPYL BENZENE	ND	4.9	0.98
M,P-XYLENE	ND	4.9	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	4.9	0.98
METHYLENE CHLORIDE	ND	4.9	2.0
N-BUTYLBENZENE	ND	4.9	0.98
N-PROPYLBENZENE	ND	4.9	0.98
O-XYLENE	ND	4.9	0.98
P-ISOPROPYLTOLUENE	ND	4.9	0.98
SEC-BUTYLBENZENE	ND	4.9	0.98
STYRENE	ND	4.9	0.98
TERT-BUTYLBENZENE	ND	4.9	0.98
TETRACHLOROETHENE	ND	4.9	0.98
TOLUENE	ND	4.9	0.98
TRANS-1,2-DICHLOROETHENE	ND	4.9	0.98
TRANS-1,3-DICHLOROPROPENE	ND	4.9	0.98
TRICHLOROETHENE	ND	4.9	0.98
TRICHLOROFLUOROMETHANE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0
ACETONE	ND	9.8	4.9
2-BUTANONE (MEK)	ND	9.8	4.9
2-HEXANONE	ND	9.8	4.9
4-METHYL-2-PENTANONE (MIBK)	ND	9.8	4.9
FREON113	ND	4.9	2.0
2-CHLOROETHYL VINYL ETHER	ND	4.9	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	4.9	2.0
CHLOROTRIFLUOROETHYLENE	ND	4.9	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	49.9	48.82	102	80-120
4-BROMOFLUOROBENZENE	50.1	48.82	103	74-121
TOLUENE-D8	47.4	48.82	97.0	81-117
DIBROMOFLUOROMETHANE	48.9	48.82	100	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 22:47
Sample ID: SL-147-SA5C-SB-40.5	Date Analyzed: 02/21/12 22:47
Lab Samp ID: B146-03	Dilution Factor: 0.87
Lab File ID: RBB322	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 10.9
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	4.9	0.98
1,1,1-TRICHLOROETHANE	ND	4.9	0.98
1,1,2,2-TETRACHLOROETHANE	ND	4.9	0.98
1,1,2-TRICHLOROETHANE	ND	4.9	0.98
1,1-DICHLOROETHANE	ND	4.9	0.98
1,1-DICHLOROETHENE	ND	4.9	0.98
1,1-DICHLOROPROPENE	ND	4.9	0.98
1,2,3-TRICHLOROBENZENE	ND	4.9	2.0
1,2,3-TRICHLOROPROPANE	ND	4.9	2.0
1,2,4-TRICHLOROBENZENE	ND	4.9	2.0
1,2,4-TRIMETHYLBENZENE	ND	4.9	0.98
1,2-DIBROMO-3-CHLOROPROPANE	ND	4.9	2.0
1,2-DICHLOROBENZENE	ND	4.9	0.98
1,2-DICHLOROETHANE	ND	4.9	0.98
1,2-DICHLOROPROPANE	ND	4.9	0.98
1,2-DIBROMOETHANE (EDB)	ND	4.9	0.98
1,3,5-TRIMETHYLBENZENE	ND	4.9	0.98
1,3-DICHLOROBENZENE	ND	4.9	0.98
1,3-DICHLOROPROPANE	ND	4.9	0.98
1,4-DICHLOROBENZENE	ND	4.9	0.98
2,2-DICHLOROPROPANE	ND	4.9	2.0
2-CHLOROTOLUENE	ND	4.9	0.98
4-CHLOROTOLUENE	ND	4.9	0.98
BENZENE	ND	4.9	0.98
BROMOBENZENE	ND	4.9	0.98
BROMOCHLOROMETHANE	ND	4.9	0.98
BROMODICHLOROMETHANE	ND	4.9	0.98
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	0.98
CHLOROBENZENE	ND	4.9	0.98
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	0.98
CHLOROMETHANE	ND	4.9	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	0.98
CIS-1,3-DICHLOROPROPENE	ND	4.9	0.98
DIBROMOCHLOROMETHANE	ND	4.9	0.98
DIBROMOMETHANE	ND	4.9	0.98
DICHLORODIFLUOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	0.98
HEXACHLOROBUTADIENE	ND	4.9	2.0
ISOPROPYL BENZENE	ND	4.9	0.98
M,P-XYLENE	ND	4.9	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	4.9	0.98
METHYLENE CHLORIDE	ND	4.9	2.0
N-BUTYLBENZENE	ND	4.9	0.98
N-PROPYLBENZENE	ND	4.9	0.98
O-XYLENE	ND	4.9	0.98
P-ISOPROPYLTOLUENE	ND	4.9	0.98
SEC-BUTYLBENZENE	ND	4.9	0.98
STYRENE	ND	4.9	0.98
TERT-BUTYLBENZENE	ND	4.9	0.98
TETRACHLOROETHENE	ND	4.9	0.98
TOLUENE	ND	4.9	0.98
TRANS-1,2-DICHLOROETHENE	ND	4.9	0.98
TRANS-1,3-DICHLOROPROPENE	ND	4.9	0.98
TRICHLOROETHENE	ND	4.9	0.98
TRICHLOROFLUOROMETHANE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0
ACETONE	ND	9.8	4.9
2-BUTANONE (MEK)	ND	9.8	4.9
2-HEXANONE	ND	9.8	4.9
4-METHYL-2-PENTANONE (MIBK)	ND	9.8	4.9
FREON113	ND	4.9	2.0
2-CHLOROETHYL VINYL ETHER	ND	4.9	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	4.9	2.0
CHLOROTRIFLUOROETHYLENE	ND	4.9	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	50.0	48.82	102	80-120
4-BROMOFLUOROBENZENE	50.8	48.82	104	74-121
TOLUENE-D8	47.2	48.82	96.7	81-117
DIBROMOFLUOROMETHANE	48.9	48.82	100	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 23:22
Sample ID: SL-261-SA5A-SB-9.0	Date Analyzed: 02/21/12 23:22
Lab Samp ID: B146-05	Dilution Factor: 0.92
Lab File ID: RBB323	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 5.6
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	4.9	0.97
1,1,1-TRICHLOROETHANE	ND	4.9	0.97
1,1,2,2-TETRACHLOROETHANE	ND	4.9	0.97
1,1,2-TRICHLOROETHANE	ND	4.9	0.97
1,1-DICHLOROETHANE	ND	4.9	0.97
1,1-DICHLOROETHENE	ND	4.9	0.97
1,1-DICHLOROPROPENE	ND	4.9	0.97
1,2,3-TRICHLOROBENZENE	ND	4.9	1.9
1,2,3-TRICHLOROPROPANE	ND	4.9	1.9
1,2,4-TRICHLOROBENZENE	ND	4.9	1.9
1,2,4-TRIMETHYLBENZENE	ND	4.9	0.97
1,2-DIBROMO-3-CHLOROPROPANE	ND	4.9	1.9
1,2-DICHLOROBENZENE	ND	4.9	0.97
1,2-DICHLOROETHANE	ND	4.9	0.97
1,2-DICHLOROPROPANE	ND	4.9	0.97
1,2-DIBROMOETHANE (EDB)	ND	4.9	0.97
1,3,5-TRIMETHYLBENZENE	ND	4.9	0.97
1,3-DICHLOROBENZENE	ND	4.9	0.97
1,3-DICHLOROPROPANE	ND	4.9	0.97
1,4-DICHLOROBENZENE	ND	4.9	0.97
2,2-DICHLOROPROPANE	ND	4.9	1.9
2-CHLOROTOLUENE	ND	4.9	0.97
4-CHLOROTOLUENE	ND	4.9	0.97
BENZENE	ND	4.9	0.97
BROMOBENZENE	ND	4.9	0.97
BROMOCHLOROMETHANE	ND	4.9	0.97
BROMODICHLOROMETHANE	ND	4.9	0.97
BROMOFORM	ND	4.9	1.9
BROMOMETHANE	ND	4.9	1.9
CARBON TETRACHLORIDE	ND	4.9	0.97
CHLOROBENZENE	ND	4.9	0.97
CHLOROETHANE	ND	4.9	1.9
CHLOROFORM	ND	4.9	0.97
CHLOROMETHANE	ND	4.9	1.9
CIS-1,2-DICHLOROETHENE	ND	4.9	0.97
CIS-1,3-DICHLOROPROPENE	ND	4.9	0.97
DIBROMOCHLOROMETHANE	ND	4.9	0.97
DIBROMOMETHANE	ND	4.9	0.97
DICHLORODIFLUOROMETHANE	ND	4.9	1.9
ETHYLBENZENE	ND	4.9	0.97
HEXACHLOROBUTADIENE	ND	4.9	1.9
ISOPROPYL BENZENE	ND	4.9	0.97
M,P-XYLENE	ND	4.9	1.9
METHYL TERT-BUTYL ETHER (MTBE)	ND	4.9	0.97
METHYLENE CHLORIDE	ND	4.9	1.9
N-BUTYLBENZENE	ND	4.9	0.97
N-PROPYLBENZENE	ND	4.9	0.97
O-XYLENE	ND	4.9	0.97
P-ISOPROPYLTOLUENE	ND	4.9	0.97
SEC-BUTYLBENZENE	ND	4.9	0.97
STYRENE	ND	4.9	0.97
TERT-BUTYLBENZENE	ND	4.9	0.97
TETRACHLOROETHENE	ND	4.9	0.97
TOLUENE	ND	4.9	0.97
TRANS-1,2-DICHLOROETHENE	ND	4.9	0.97
TRANS-1,3-DICHLOROPROPENE	ND	4.9	0.97
TRICHLOROETHENE	ND	4.9	0.97
TRICHLOROFLUOROMETHANE	ND	4.9	1.9
VINYL CHLORIDE	ND	4.9	1.9
ACETONE	ND	9.7	4.9
2-BUTANONE (MEK)	ND	9.7	4.9
2-HEXANONE	ND	9.7	4.9
4-METHYL-2-PENTANONE (MIBK)	ND	9.7	4.9
FREON113	ND	4.9	1.9
2-CHLOROETHYL VINYL ETHER	ND	4.9	1.9
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	4.9	1.9
CHLOROTRIFLUOROETHYLENE	ND	4.9	1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	51.7	48.73	106	80-120
4-BROMOFLUOROBENZENE	49.4	48.73	101	74-121
TOLUENE-D8	46.6	48.73	95.7	81-117
DIBROMOFLUOROMETHANE	48.6	48.73	99.8	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B146	Date Extracted: 02/21/12 18:47
Sample ID: MBLK1S	Date Analyzed: 02/21/12 18:47
Lab Samp ID: VO03B20B	Dilution Factor: 1
Lab File ID: RBB315	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	47.3	50.00	94.6	80-120
4-BROMOFLUOROBENZENE	50.9	50.00	102	74-121
TOLUENE-D8	48.0	50.00	95.9	81-117
DIBROMOFLUOROMETHANE	48.5	50.00	97.0	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B146	Date Extracted: 02/21/12 21:39
Sample ID: MBLK2S	Date Analyzed: 02/21/12 21:39
Lab Samp ID: VPB026SB	Dilution Factor: 1
Lab File ID: RBB320	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	51.9	50.00	104	80-120
4-BROMOFLUOROBENZENE	50.1	50.00	100	74-121
TOLUENE-D8	48.2	50.00	96.5	81-117
DIBROMOFLUOROMETHANE	50.4	50.00	101	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 5035/8260B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VO03B20B	VO03B20L	VO03B20C		
LAB FILE ID:	RBB315	RBB310	RBB311		
DATE EXTRACTED:	02/21/1218:47	02/21/1216:04	02/21/1216:36	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:47	02/21/1216:04	02/21/1216:36	DATE RECEIVED:	02/21/12
PREP. BATCH:	VO03B20	VO03B20	VO03B20		
CALIB. REF:	RBB256	RBB256	RBB256		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50.0	49.3	99	50.0	50.9	102	3	70-130	50
1,1,1-Trichloroethane	ND	50.0	49.6	99	50.0	50.5	101	2	60-130	50
1,1,2,2-Tetrachloroethane	ND	50.0	51.6	103	50.0	53.3	107	3	70-150	50
1,1,2-Trichloroethane	ND	50.0	49.4	99	50.0	50.8	102	3	70-140	50
1,1-Dichloroethane	ND	50.0	50.5	101	50.0	51.8	104	2	70-140	50
1,1-Dichloroethene	ND	50.0	48.8	98	50.0	49.5	99	1	60-130	50
1,1-Dichloropropene	ND	50.0	48.9	98	50.0	50.4	101	3	70-130	50
1,2,3-Trichlorobenzene	ND	50.0	48.8	98	50.0	48.4	97	1	60-150	50
1,2,3-Trichloropropane	ND	50.0	51.6	103	50.0	52.9	106	3	60-150	50
1,2,4-Trichlorobenzene	ND	50.0	50.7	101	50.0	50.6	101	0	60-140	50
1,2,4-Trimethylbenzene	ND	50.0	51.5	103	50.0	52.6	105	2	70-130	50
1,2-Dibromo-3-chloropropane	ND	50.0	47.7	95	50.0	48.6	97	2	50-150	50
1,2-Dichlorobenzene	ND	50.0	52.0	104	50.0	52.9	106	2	70-130	50
1,2-Dichloroethane	ND	50.0	47.2	94	50.0	48.4	97	3	60-140	50
1,2-Dichloropropane	ND	50.0	49.4	99	50.0	51.5	103	4	70-130	50
1,2-Dibromoethane (EDB)	ND	50.0	50.1	100	50.0	51.6	103	3	50-150	50
1,3,5-Trimethylbenzene	ND	50.0	51.9	104	50.0	53.3	107	3	70-130	50
1,3-Dichlorobenzene	ND	50.0	52.9	106	50.0	54.3	109	3	70-130	50
1,3-Dichloropropane	ND	50.0	49.6	99	50.0	51.4	103	4	70-140	50
1,4-Dichlorobenzene	ND	50.0	53.2	106	50.0	53.6	107	1	70-130	50
2,2-Dichloropropane	ND	50.0	51.2	102	50.0	51.2	102	0	40-140	50
2-Chlorotoluene	ND	50.0	51.4	103	50.0	52.5	105	2	70-130	50
4-Chlorotoluene	ND	50.0	52.3	105	50.0	53.2	106	2	70-130	50
Benzene	ND	50.0	48.9	98	50.0	50.0	100	2	70-130	50
Bromobenzene	ND	50.0	51.0	102	50.0	52.2	104	2	70-130	50
Bromochloromethane	ND	50.0	51.4	103	50.0	52.8	106	3	60-150	50
Bromodichloromethane	ND	50.0	48.6	97	50.0	50.4	101	4	60-130	50
Bromoform	ND	50.0	52.2	104	50.0	53.1	106	2	60-130	50
Bromomethane	ND	50.0	51.2	102	50.0	48.1	96	6	40-160	50
Carbon Tetrachloride	ND	50.0	46.3	93	50.0	48.7	97	5	50-130	50
Chlorobenzene	ND	50.0	49.7	99	50.0	50.8	102	2	70-130	50
Chloroethane	ND	50.0	52.6	105	50.0	50.4	101	4	60-150	50
Chloroform	ND	50.0	49.5	99	50.0	51.4	103	4	70-130	50
Chloromethane	ND	50.0	51.1	102	50.0	47.8	96	7	50-150	50
cis-1,2-Dichloroethene	ND	50.0	50.4	101	50.0	51.7	103	3	70-130	50
cis-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	51.3	103	2	60-130	50
Dibromochloromethane	ND	50.0	50.2	100	50.0	51.5	103	3	70-130	50
Dibromomethane	ND	50.0	49.6	99	50.0	50.2	100	1	70-130	50
Dichlorodifluoromethane	ND	50.0	48.6	97	50.0	45.9	92	6	50-130	50
Ethylbenzene	ND	50.0	50.0	100	50.0	51.1	102	2	70-130	50
Hexachlorobutadiene	ND	50.0	48.9	98	50.0	50.2	100	3	50-140	50
Isopropyl Benzene	ND	50.0	50.5	101	50.0	51.7	103	2	70-140	50
m,p-Xylene	ND	100	97.1	97	100	98.6	99	2	70-140	50
Methyl tert-butyl Ether (MTBE)	ND	50.0	48.5	97	50.0	49.8	100	3	60-150	50
Methylene Chloride	ND	50.0	49.5	99	50.0	51.5	103	4	70-130	50
n-Butylbenzene	ND	50.0	53.6	107	50.0	54.2	108	1	50-150	50
n-Propylbenzene	ND	50.0	52.2	104	50.0	53.1	106	2	70-130	50
o-Xylene	ND	50.0	49.0	98	50.0	50.2	100	2	70-130	50

p-Isopropyltoluene	ND	50.0	51.4	103	50.0	52.5	105	2	60-140	50
Sec-Butylbenzene	ND	50.0	50.8	102	50.0	51.9	104	2	70-130	50
Styrene	ND	50.0	53.5	107	50.0	55.1	110	3	60-140	50
Tert-Butylbenzene	ND	50.0	51.7	103	50.0	53.0	106	2	70-130	50
Tetrachloroethene	ND	50.0	48.6	97	50.0	50.0	100	3	70-130	50
Toluene	ND	50.0	49.0	98	50.0	50.4	101	3	70-130	50
Trans-1,2-Dichloroethene	ND	50.0	49.2	98	50.0	50.8	102	3	70-130	50
Trans-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	52.0	104	3	60-140	50
Trichloroethene	ND	50.0	48.5	97	50.0	49.1	98	1	70-130	50
Trichlorofluoromethane	ND	50.0	49.9	100	50.0	47.6	95	5	70-140	50
Vinyl Chloride	ND	50.0	51.1	102	50.0	49.5	99	3	60-150	50
Acetone	ND	250	243	97	250	250	100	3	40-160	50
2-Butanone (MEK)	ND	250	243	97	250	254	102	4	50-160	50
2-Hexanone	ND	250	244	98	250	254	102	4	60-160	50
4-Methyl-2-Pentanone (MIBK)	ND	250	242	97	250	256	103	6	70-160	50
Freon113	ND	50.0	50.1	100	50.0	51.2	102	2	50-140	50
2-Chloroethyl Vinyl Ether	ND	50.0	50.3	101	50.0	48.1	96	4	50-150	50
2-Chloro-1,1,1-trifluoroethane	ND	50.0	52.1	104	50.0	51.3	103	2	50-150	50
Chlorotrifluoroethylene	ND	50.0	53.0	106	50.0	49.1	98	8	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	46.2	92	50.0	46.6	93	80-120
4-Bromofluorobenzene	50.0	51.6	103	50.0	51.4	103	74-121
Toluene-d8	50.0	48.3	97	50.0	48.8	98	81-117
Dibromofluoromethane	50.0	48.2	96	50.0	48.4	97	80-120

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 20:01
Sample ID: TB-021512	Date Analyzed: 02/16/12 20:01
Lab Samp ID: B146-07	Dilution Factor: 1
Lab File ID: RBV220	Matrix : WATER
Ext Btch ID: VO01B11	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.24	10.00	92.4	80-120
4-BROMOFLUOROBENZENE	11.4	10.00	114	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	9.88	10.00	98.8	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 18:37
Sample ID: MBLK1W	Date Analyzed: 02/16/12 18:37
Lab Samp ID: VO01B11B	Dilution Factor: 1
Lab File ID: RBV217	Matrix : WATER
Ext Btch ID: VO01B11	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.61	10.00	96.1	80-120
4-BROMOFLUOROBENZENE	11.3	10.00	113	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	10.2	10.00	102	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01B11B	VO01B11L	VO01B11C		
LAB FILE ID:	RBV217	RBV214	RBV215		
DATE EXTRACTED:	02/16/1218:37	02/16/1217:13	02/16/1217:41	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1218:37	02/16/1217:13	02/16/1217:41	DATE RECEIVED:	02/16/12
PREP. BATCH:	VO01B11	VO01B11	VO01B11		
CALIB. REF:	RJV602	RJV602	RJV602		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.1	101	10.0	10.4	104	3	70-130	30
1,1,1-Trichloroethane	ND	10.0	11.0	110	10.0	10.6	106	3	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.0	100	10.0	11.0	110	9	70-130	30
1,1,2-Trichloroethane	ND	10.0	9.54	95	10.0	10.3	103	8	70-130	30
1,1-Dichloroethane	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
1,1-Dichloroethene	ND	10.0	9.39	94	10.0	9.22	92	2	60-130	30
1,1-Dichloropropene	ND	10.0	11.2	112	10.0	10.8	108	3	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	7.82	78	10.0	8.84	88	12	60-130	30
1,2,3-Trichloropropane	ND	10.0	10.2	102	10.0	10.9	109	7	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	7.76	78	10.0	8.62	86	11	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	11.0	110	10.0	10.7	107	3	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.36	84	10.0	9.26	93	10	60-130	30
1,2-Dichlorobenzene	ND	10.0	10.4	104	10.0	10.7	107	2	70-130	30
1,2-Dichloroethane	ND	10.0	9.88	99	10.0	10.4	104	5	70-130	30
1,2-Dichloropropane	ND	10.0	10.1	101	10.0	10.2	102	2	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	8.78	88	10.0	9.56	96	9	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	11.0	110	10.0	10.3	103	6	70-130	30
1,3-Dichlorobenzene	ND	10.0	11.0	110	10.0	10.9	109	1	70-130	30
1,3-Dichloropropane	ND	10.0	9.49	95	10.0	10.2	102	7	70-130	30
1,4-Dichlorobenzene	ND	10.0	10.7	107	10.0	10.9	109	2	70-130	30
2,2-Dichloropropane	ND	10.0	11.0	110	10.0	10.6	106	4	50-140	30
2-Chlorotoluene	ND	10.0	11.3	113	10.0	10.6	106	6	70-130	30
4-Chlorotoluene	ND	10.0	11.2	112	10.0	10.8	108	4	70-130	30
Benzene	ND	10.0	10.2	102	10.0	9.80	98	4	70-130	30
Bromobenzene	ND	10.0	10.3	103	10.0	10.3	103	1	70-130	30
Bromochloromethane	ND	10.0	8.89	89	10.0	9.68	97	9	70-130	30
Bromodichloromethane	ND	10.0	9.84	98	10.0	9.93	99	1	70-130	30
Bromoform	ND	10.0	10.9	109	10.0	11.4	114	4	60-140	30
Bromomethane	ND	10.0	9.17	92	10.0	8.61	86	6	50-140	30
Carbon Tetrachloride	ND	10.0	11.7	117	10.0	10.9	109	7	70-130	30
Chlorobenzene	ND	10.0	10.4	104	10.0	10.7	107	2	70-120	30
Chloroethane	ND	10.0	9.19	92	10.0	8.51	85	8	70-140	30
Chloroform	ND	10.0	9.91	99	10.0	10.2	102	3	70-130	30
Chloromethane	ND	10.0	9.76	98	10.0	9.12	91	7	60-130	30
cis-1,2-Dichloroethene	ND	10.0	9.05	90	10.0	9.25	93	2	70-130	30
cis-1,3-Dichloropropene	ND	10.0	10.2	102	10.0	10.5	105	3	70-130	30
Dibromochloromethane	ND	10.0	9.86	99	10.0	10.6	106	7	70-130	30
Dibromomethane	ND	10.0	9.24	92	10.0	10.0	100	8	70-140	30
Dichlorodifluoromethane	ND	10.0	9.16	92	10.0	8.66	87	6	50-140	30
Ethylbenzene	ND	10.0	10.3	103	10.0	10.2	102	0	70-130	30
Hexachlorobutadiene	ND	10.0	9.56	96	10.0	9.49	95	1	60-140	30
Isopropyl Benzene	ND	10.0	12.5	125	10.0	11.6	116	8	70-150	30
m,p-Xylene	ND	20.0	20.3	102	20.0	20.4	102	0	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	8.98	90	10.0	10.3	103	14	70-140	30
Methylene Chloride	ND	10.0	9.28	93	10.0	9.62	96	4	70-130	30
n-Butylbenzene	ND	10.0	10.8	108	10.0	10.3	103	4	60-130	30
n-Propylbenzene	ND	10.0	11.8	118	10.0	11.1	111	6	70-140	30
o-Xylene	ND	10.0	10.1	101	10.0	9.93	99	1	70-130	30

p-Isopropyltoluene	ND	10.0	11.6	116	10.0	11.2	112	4	70-140	30
Sec-Butylbenzene	ND	10.0	11.9	119	10.0	11.4	114	5	70-130	30
Styrene	ND	10.0	10.2	102	10.0	10.3	103	2	70-130	30
Tert-Butylbenzene	ND	10.0	12.2	122	10.0	11.4	114	7	70-130	30
Tetrachloroethene	ND	10.0	11.0	110	10.0	10.4	104	5	70-130	30
Toluene	ND	10.0	10.3	103	10.0	10.1	101	2	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	9.47	95	10.0	9.49	95	0	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	9.86	99	10.0	10.6	106	7	70-140	30
Trichloroethene	ND	10.0	11.2	112	10.0	10.9	109	2	70-130	30
Trichlorofluoromethane	ND	10.0	9.93	99	10.0	9.26	93	7	70-140	30
Vinyl Chloride	ND	10.0	8.90	89	10.0	8.11	81	9	60-150	30
Acetone	ND	50.0	41.8	84	50.0	48.3	97	14	50-150	30
2-Butanone (MEK)	ND	50.0	46.5	93	50.0	54.1	108	15	60-140	30
2-Hexanone	ND	50.0	47.9	96	50.0	55.2	110	14	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	49.1	98	50.0	56.8	114	15	60-140	30
Freon113	ND	10.0	10.2	102	10.0	10.1	101	1	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	9.77	98	10.0	11.3	113	14	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	13.3	133	10.0	12.1	121	9	50-150	30
Chlorotrifluoroethylene	ND	10.0	11.3	113	10.0	9.91	99	13	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.98	90	10.0	9.30	93	80-120
4-Bromofluorobenzene	10.0	10.8	108	10.0	10.1	101	86-115
Toluene-d8	10.0	10.1	101	10.0	9.80	98	88-110
Dibromofluoromethane	10.0	9.76	98	10.0	9.87	99	86-118

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 20:55
Sample ID: TB-021512	Date Analyzed: 02/21/12 20:55
Lab Samp ID: B146-07	Dilution Factor: 1
Lab File ID: RBY343	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	4.42	5.000	88.4	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B146	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 17:59
Sample ID: SL-147-SA5C-SB-55.5	Date Analyzed: 02/17/12 17:59
Lab Samp ID: B146-01	Dilution Factor: 0.95
Lab File ID: RBY330	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : 10.9
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	11	5.3

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	19.3	21.32	90.6	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 18:29
Sample ID: SL-147-SA5C-SB-40.5	Date Analyzed: 02/17/12 18:29
Lab Samp ID: B146-03	Dilution Factor: 0.85
Lab File ID: RBY331	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : 10.9
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	9.5	4.8

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	18.5	19.08	97.2	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 19:00
Sample ID: SL-261-SA5A-SB-9.0	Date Analyzed: 02/17/12 19:00
Lab Samp ID: B146-05	Dilution Factor: 0.93
Lab File ID: RBY332	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : 5.6
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	9.9	4.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	17.7	19.70	89.9	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B146	Date Extracted: 02/17/12 15:27
Sample ID: MBLK1S	Date Analyzed: 02/17/12 15:27
Lab Samp ID: VOF5B12B	Dilution Factor: 1
Lab File ID: RBY327	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	18.3	20.00	91.6	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B146	Date Extracted: 02/17/12 16:57
Sample ID: MBLK2S	Date Analyzed: 02/17/12 16:57
Lab Samp ID: VPB024SB	Dilution Factor: 1
Lab File ID: RBY328	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	22.9	20.00	114	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 5035/8260B SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOF5B12B	VOF5B12L	VOF5B12C		
LAB FILE ID:	RBY327	RBY324	RBY325		
DATE EXTRACTED:	02/17/1215:27	02/17/1213:56	02/17/1214:26	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1215:27	02/17/1213:56	02/17/1214:26	DATE RECEIVED:	02/17/12
PREP. BATCH:	VOF5B12	VOF5B12	VOF5B12		
CALIB. REF:	RJY282	RJY282	RJY282		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	200	197	99	200	208	104	5	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	20.0	15.3	77	20.0	18.6	93	50-150

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/16/12 18:12
Lab Samp ID: B146-02	Dilution Factor: 1
Lab File ID: RBJ111	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 11.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	190	95
1,2-DICHLOROBENZENE	ND	190	95
1,3-DICHLOROBENZENE	ND	190	95
1,4-DICHLOROBENZENE	ND	190	95
2,4,5-TRICHLOROPHENOL	ND	190	95
2,4,6-TRICHLOROPHENOL	ND	190	95
2,4-DICHLOROPHENOL	ND	190	95
2,4-DIMETHYLPHENOL	ND	190	95
2,4-DINITROPHENOL	ND	380	190
2,4-DINITROTOLUENE	ND	190	95
2,6-DINITROTOLUENE	ND	190	95
2-CHLORONAPHTHALENE	ND	190	95
2-CHLOROPHENOL	ND	190	95
2-METHYLNAPHTHALENE	ND	190	95
2-METHYLPHENOL	ND	190	95
2-NITROANILINE	ND	190	95
2-NITROPHENOL	ND	190	95
3,3'-DICHLOROBENZIDINE	ND	190	95
3-NITROANILINE	ND	190	95
4,6-DINITRO-2-METHYLPHENOL	ND	380	190
4-BROMOPHENYL-PHENYLETHER	ND	190	95
4-CHLORO-3-METHYLPHENOL	ND	190	95
4-CHLOROANILINE	ND	190	95
4-CHLOROPHENYL-PHENYLETHER	ND	190	95
4-METHYLPHENOL (1)	ND	190	95
4-NITROANILINE	ND	190	95
4-NITROPHENOL	ND	380	190
ACENAPHTHENE	ND	190	95
ACENAPHTHYLENE	ND	190	95
ANTHRACENE	ND	190	95
BENZO(A)ANTHRACENE	ND	190	95
BENZO(A)PYRENE	ND	190	95
BENZO(B)FLUORANTHENE	ND	190	95
BENZO(K)FLUORANTHENE	ND	190	95
BENZO(G,H,I)PERYLENE	ND	190	95
BIS(2-CHLOROETHOXY)METHANE	ND	190	95
BIS(2-CHLOROETHYL)ETHER	ND	190	95
BIS(2-CHLOROISOPROPYL)ETHER	ND	190	95
BIS(2-ETHYLHEXYL)PHTHALATE	ND	190	95
BUTYLBENZYLPHTHALATE	ND	190	95
CHRYSENE	ND	190	95
DI-N-BUTYLPHTHALATE	ND	190	95
DI-N-OCTYLPHTHALATE	ND	190	95
DIBENZO(A,H)ANTHRACENE	ND	190	95
DIBENZOFURAN	ND	190	95
DIETHYLPHTHALATE	ND	190	95
DIMETHYLPHTHALATE	ND	190	95
FLUORANTHENE	ND	190	95
FLUORENE	ND	190	95
HEXACHLOROBENZENE	ND	190	95
HEXACHLOROBUTADIENE	ND	190	95
HEXACHLOROCYCLOPENTADIENE	ND	190	95
HEXACHLOROETHANE	ND	190	95
INDENO(1,2,3-CD)PYRENE	ND	190	95
ISOPHORONE	ND	190	95
N-NITROSO-DI-N-PROPYLAMINE	ND	190	95
N-NITROSODIPHENYLAMINE (2)	ND	190	95
NAPHTHALENE	ND	190	95
NITROBENZENE	ND	190	95
PENTACHLOROPHENOL	ND	380	190
PHENANTHRENE	ND	190	95
PHENOL	ND	190	95
PYRENE	ND	190	95
BENZYL ALCOHOL	ND	190	95
1-METHYLNAPHTHALENE	ND	190	95
1,2-DIPHENYLHYDRAZINE	ND	190	95
3,5-DIMETHYLPHENOL	ND	190	95
ANILINE	ND	380	190
BENZIDINE	ND	940	470
BENZOIC ACID	ND	750	380
CARBAZOLE	ND	190	95
N-NITROSODIMETHYLAMINE	ND	190	95
TETRALIN	ND	190	190
2-BUTOXYETHANOL	ND	190	190
2-PHENOXYETHANOL	ND	190	190

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	918	1127	81.4	35-130
2-FLUOROBIPHENYL	239	375.8	63.7	45-130
2-FLUOROPHENOL	707	1127	62.7	25-130
NITROBENZENE-D5	233	375.8	61.9	40-130
PHENOL-D5	723	1127	64.2	25-120
TERPHENYL-D14	346	375.8	92.0	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/16/12 18:31
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: RBJ112	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 9.0
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	92
1,2-DICHLOROBENZENE	ND	180	92
1,3-DICHLOROBENZENE	ND	180	92
1,4-DICHLOROBENZENE	ND	180	92
2,4,5-TRICHLOROPHENOL	ND	180	92
2,4,6-TRICHLOROPHENOL	ND	180	92
2,4-DICHLOROPHENOL	ND	180	92
2,4-DIMETHYLPHENOL	ND	180	92
2,4-DINITROPHENOL	ND	370	180
2,4-DINITROTOLUENE	ND	180	92
2,6-DINITROTOLUENE	ND	180	92
2-CHLORONAPHTHALENE	ND	180	92
2-CHLOROPHENOL	ND	180	92
2-METHYLNAPHTHALENE	ND	180	92
2-METHYLPHENOL	ND	180	92
2-NITROANILINE	ND	180	92
2-NITROPHENOL	ND	180	92
3,3'-DICHLOROBENZIDINE	ND	180	92
3-NITROANILINE	ND	180	92
4,6-DINITRO-2-METHYLPHENOL	ND	370	180
4-BROMOPHENYL-PHENYLETHER	ND	180	92
4-CHLORO-3-METHYLPHENOL	ND	180	92
4-CHLOROANILINE	ND	180	92
4-CHLOROPHENYL-PHENYLETHER	ND	180	92
4-METHYLPHENOL (1)	ND	180	92
4-NITROANILINE	ND	180	92
4-NITROPHENOL	ND	370	180
ACENAPHTHENE	ND	180	92
ACENAPHTHYLENE	ND	180	92
ANTHRACENE	ND	180	92
BENZO(A)ANTHRACENE	ND	180	92
BENZO(A)PYRENE	ND	180	92
BENZO(B)FLUORANTHENE	ND	180	92
BENZO(K)FLUORANTHENE	ND	180	92
BENZO(G,H,I)PERYLENE	ND	180	92
BIS(2-CHLOROETHOXY)METHANE	ND	180	92
BIS(2-CHLOROETHYL)ETHER	ND	180	92
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	92
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	92
BUTYLBENZYLPHTHALATE	ND	180	92
CHRYSENE	ND	180	92
DI-N-BUTYLPHTHALATE	ND	180	92
DI-N-OCTYLPHTHALATE	ND	180	92
DIBENZO(A,H)ANTHRACENE	ND	180	92
DIBENZOFURAN	ND	180	92
DIETHYLPHTHALATE	ND	180	92
DIMETHYLPHTHALATE	ND	180	92
FLUORANTHENE	ND	180	92
FLUORENE	ND	180	92
HEXACHLOROBENZENE	ND	180	92
HEXACHLOROBUTADIENE	ND	180	92
HEXACHLOROCYCLOPENTADIENE	ND	180	92
HEXACHLOROETHANE	ND	180	92
INDENO(1,2,3-CD)PYRENE	ND	180	92
ISOPHORONE	ND	180	92
N-NITROSO-DI-N-PROPYLAMINE	ND	180	92
N-NITROSODIPHENYLAMINE (2)	ND	180	92
NAPHTHALENE	ND	180	92
NITROBENZENE	ND	180	92
PENTACHLOROPHENOL	ND	370	180
PHENANTHRENE	ND	180	92
PHENOL	ND	180	92
PYRENE	ND	180	92
BENZYL ALCOHOL	ND	180	92
1-METHYLNAPHTHALENE	ND	180	92
1,2-DIPHENYLHYDRAZINE	ND	180	92
3,5-DIMETHYLPHENOL	ND	180	92
ANILINE	ND	370	180
BENZIDINE	ND	910	460
BENZOIC ACID	ND	730	370
CARBAZOLE	ND	180	92
N-NITROSODIMETHYLAMINE	ND	180	92
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	790	1099	71.9	35-130
2-FLUOROBIPHENYL	224	366.3	61.3	45-130
2-FLUOROPHENOL	649	1099	59.0	25-130
NITROBENZENE-D5	216	366.3	59.0	40-130
PHENOL-D5	663	1099	60.4	25-120
TERPHENYL-D14	290	366.3	79.3	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/16/12 18:49
Lab Samp ID: B146-06	Dilution Factor: 1
Lab File ID: RBJ113	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 5.7
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	89
1,2-DICHLOROBENZENE	ND	180	89
1,3-DICHLOROBENZENE	ND	180	89
1,4-DICHLOROBENZENE	ND	180	89
2,4,5-TRICHLOROPHENOL	ND	180	89
2,4,6-TRICHLOROPHENOL	ND	180	89
2,4-DICHLOROPHENOL	ND	180	89
2,4-DIMETHYLPHENOL	ND	180	89
2,4-DINITROPHENOL	ND	350	180
2,4-DINITROTOLUENE	ND	180	89
2,6-DINITROTOLUENE	ND	180	89
2-CHLORONAPHTHALENE	ND	180	89
2-CHLOROPHENOL	ND	180	89
2-METHYLNAPHTHALENE	ND	180	89
2-METHYLPHENOL	ND	180	89
2-NITROANILINE	ND	180	89
2-NITROPHENOL	ND	180	89
3,3'-DICHLOROBENZIDINE	ND	180	89
3-NITROANILINE	ND	180	89
4,6-DINITRO-2-METHYLPHENOL	ND	350	180
4-BROMOPHENYL-PHENYLETHER	ND	180	89
4-CHLORO-3-METHYLPHENOL	ND	180	89
4-CHLOROANILINE	ND	180	89
4-CHLOROPHENYL-PHENYLETHER	ND	180	89
4-METHYLPHENOL (1)	ND	180	89
4-NITROANILINE	ND	180	89
4-NITROPHENOL	ND	350	180
ACENAPHTHENE	ND	180	89
ACENAPHTHYLENE	ND	180	89
ANTHRACENE	ND	180	89
BENZO(A)ANTHRACENE	ND	180	89
BENZO(A)PYRENE	ND	180	89
BENZO(B)FLUORANTHENE	ND	180	89
BENZO(K)FLUORANTHENE	ND	180	89
BENZO(G,H,I)PERYLENE	ND	180	89
BIS(2-CHLOROETHOXY)METHANE	ND	180	89
BIS(2-CHLOROETHYL)ETHER	ND	180	89
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	89
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	89
BUTYLBENZYLPHTHALATE	ND	180	89
CHRYSENE	ND	180	89
DI-N-BUTYLPHTHALATE	ND	180	89
DI-N-OCTYLPHTHALATE	ND	180	89
DIBENZO(A,H)ANTHRACENE	ND	180	89
DIBENZOFURAN	ND	180	89
DIETHYLPHTHALATE	ND	180	89
DIMETHYLPHTHALATE	ND	180	89
FLUORANTHENE	ND	180	89
FLUORENE	ND	180	89
HEXACHLOROBENZENE	ND	180	89
HEXACHLOROBUTADIENE	ND	180	89
HEXACHLOROCYCLOPENTADIENE	ND	180	89
HEXACHLOROETHANE	ND	180	89
INDENO(1,2,3-CD)PYRENE	ND	180	89
ISOPHORONE	ND	180	89
N-NITROSO-DI-N-PROPYLAMINE	ND	180	89
N-NITROSODIPHENYLAMINE (2)	ND	180	89
NAPHTHALENE	ND	180	89
NITROBENZENE	ND	180	89
PENTACHLOROPHENOL	ND	350	180
PHENANTHRENE	ND	180	89
PHENOL	ND	180	89
PYRENE	ND	180	89
BENZYL ALCOHOL	ND	180	89
1-METHYLNAPHTHALENE	ND	180	89
1,2-DIPHENYLHYDRAZINE	ND	180	89
3,5-DIMETHYLPHENOL	ND	180	89
ANILINE	ND	350	180
BENZIDINE	ND	880	450
BENZOIC ACID	ND	710	350
CARBAZOLE	ND	180	89
N-NITROSODIMETHYLAMINE	ND	180	89
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	740	1060	69.8	35-130
2-FLUOROBIPHENYL	242	353.4	68.4	45-130
2-FLUOROPHENOL	676	1060	63.7	25-130
NITROBENZENE-D5	226	353.4	64.0	40-130
PHENOL-D5	706	1060	66.6	25-120
TERPHENYL-D14	312	353.4	88.4	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	757	1000	75.7	35-130
2-FLUOROBIPHENYL	241	333.3	72.4	45-130
2-FLUOROPHENOL	708	1000	70.8	25-130
NITROBENZENE-D5	228	333.3	68.4	40-130
PHENOL-D5	702	1000	70.2	25-120
TERPHENYL-D14	276	333.3	82.9	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB023SB SVB023SL SVB023SC
LAB FILE ID: RBJ104 RBJ105 RBJ106
DATE EXTRACTED: 02/16/1213:26 02/16/1213:26 02/16/1213:26 DATE COLLECTED: NA
DATE ANALYZED: 02/16/1216:01 02/16/1216:20 02/16/1216:39 DATE RECEIVED: 02/16/12
PREP. BATCH: SVB023S SVB023S SVB023S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	478	72	667	453	68	5	30-130	50
1,2-Dichlorobenzene	ND	667	496	74	667	484	73	2	40-130	50
1,3-Dichlorobenzene	ND	667	494	74	667	480	72	3	40-130	50
1,4-Dichlorobenzene	ND	667	488	73	667	481	72	1	30-130	50
2,4,5-Trichlorophenol	ND	667	520	78	667	478	72	8	40-130	50
2,4,6-Trichlorophenol	ND	667	536	80	667	486	73	10	40-130	50
2,4-Dichlorophenol	ND	667	526	79	667	482	72	9	40-130	50
2,4-Dimethylphenol	ND	667	524	79	667	486	73	8	40-130	50
2,4-Dinitrophenol	ND	667	377	56	667	376	56	0	20-130	50
2,4-Dinitrotoluene	ND	667	564	85	667	542	81	4	30-130	50
2,6-Dinitrotoluene	ND	667	558	84	667	514	77	8	50-130	50
2-Chloronaphthalene	ND	667	547	82	667	507	76	8	50-130	50
2-Chlorophenol	ND	667	515	77	667	496	74	4	30-130	50
2-Methylnaphthalene	ND	667	543	81	667	508	76	7	40-130	50
2-Methylphenol	ND	667	547	82	667	493	74	10	40-130	50
2-Nitroaniline	ND	667	547	82	667	510	77	7	40-130	50
2-Nitrophenol	ND	667	548	82	667	512	77	7	40-130	50
3,3'-Dichlorobenzidine	ND	667	495	74	667	445	67	11	50-130	50
3-Nitroaniline	ND	667	500	75	667	476	71	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	532	80	667	510	76	4	40-160	50
4-Bromophenyl-phenylether	ND	667	558	84	667	488	73	13	40-140	50
4-Chloro-3-Methylphenol	ND	667	536	80	667	482	72	11	30-130	50
4-Chloroaniline	ND	667	470	70	667	425	64	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	536	80	667	497	75	7	40-140	50
4-Methylphenol	ND	667	567	85	667	512	77	10	30-130	50
4-Nitroaniline	ND	667	499	75	667	497	75	0	50-130	50
4-Nitrophenol	ND	667	468	70	667	480	72	3	20-140	50
Acenaphthene	ND	667	542	81	667	499	75	8	30-130	50
Acenaphthylene	ND	667	548	82	667	509	76	7	30-130	50
Anthracene	ND	667	540	81	667	490	73	10	30-130	50
Benzo(a)anthracene	ND	667	540	81	667	498	75	8	40-130	50
Benzo(a)pyrene	ND	667	526	79	667	475	71	10	40-130	50
Benzo(b)fluoranthene	ND	667	552	83	667	506	76	9	40-140	50
Benzo(k)fluoranthene	ND	667	563	84	667	497	75	12	40-140	50
Benzo(g,h,i)perylene	ND	667	558	84	667	500	75	11	40-140	50
bis(2-Chloroethoxy)methane	ND	667	521	78	667	473	71	10	40-130	50
bis(2-Chloroethyl)ether	ND	667	512	77	667	485	73	5	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	507	76	667	525	79	4	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	604	91	667	544	82	10	40-150	50
Butylbenzylphthalate	ND	667	610	92	667	545	82	11	40-150	50
Chrysene	ND	667	560	84	667	512	77	9	40-140	50
Di-n-butylphthalate	ND	667	588	88	667	538	81	9	10-130	50
Di-n-octylphthalate	ND	667	615	92	667	544	82	12	20-140	50
Dibenzo(a,h)anthracene	ND	667	557	83	667	504	76	10	40-130	50
Dibenzofuran	ND	667	543	81	667	503	75	8	40-130	50
Diethylphthalate	ND	667	574	86	667	526	79	9	40-130	50
Dimethylphthalate	ND	667	568	85	667	527	79	7	40-130	50
Fluoranthene	ND	667	562	84	667	529	79	6	40-130	50

Fluorene	ND	667	554	83	667	515	77	7	30-130	50
Hexachlorobenzene	ND	667	569	85	667	512	77	11	30-130	50
Hexachlorobutadiene	ND	667	499	75	667	469	70	6	10-130	50
Hexachlorocyclopentadiene	ND	667	394	59	667	378	57	4	10-130	50
Hexachloroethane	ND	667	487	73	667	478	72	2	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	558	84	667	510	77	9	30-140	50
Isophorone	ND	667	564	85	667	515	77	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	541	81	667	492	74	9	30-130	50
n-Nitrosodiphenylamine	ND	667	439	66	667	387	58	13	30-140	50
Naphthalene	ND	667	521	78	667	490	74	6	30-130	50
Nitrobenzene	ND	667	549	82	667	467	70	16	40-130	50
Pentachlorophenol	ND	667	511	77	667	471	71	8	20-130	50
Phenanthrene	ND	667	559	84	667	509	76	9	30-130	50
Phenol	ND	667	521	78	667	486	73	7	30-130	50
Pyrene	ND	667	554	83	667	489	73	12	30-130	50
Benzyl Alcohol	ND	667	578	87	667	519	78	11	40-130	50
1-Methylnaphthalene	ND	667	550	82	667	508	76	8	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	503	76	13	30-130	50
3,5-Dimethylphenol	ND	667	578	87	667	550	82	5	20-150	50
Aniline	ND	667	387	58	667	357	54	8	20-150	50
Benzidine	ND	2670	1310	49	2670	1310	49	0	20-130	50
Benzoic Acid	ND	2670	753	28	2670	626J	23	18	10-130	50
Carbazole	ND	667	540	81	667	512	77	5	40-130	50
N-Nitrosodimethylamine	ND	667	515	77	667	470	71	9	30-150	50

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SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	776	78	35-130
2-Fluorobiphenyl	333	239	72	333	238	72	45-130
2-Fluorophenol	1000	727	73	1000	701	70	25-130
Nitrobenzene-d5	333	244	73	333	228	68	40-130
Phenol-d5	1000	743	74	1000	707	71	25-120
Terphenyl-d14	333	283	85	333	257	77	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/16/12 18:12
Lab Samp ID: B146-02	Dilution Factor: 1
Lab File ID: RBJ111	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 11.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.96
ACENAPHTHYLENE	ND	1.9	0.96
ANTHRACENE	ND	1.9	0.96
BENZO(A)ANTHRACENE	ND	1.9	0.96
BENZO(A)PYRENE	ND	1.9	0.96
BENZO(B)FLUORANTHENE	ND	1.9	0.96
BENZO(K)FLUORANTHENE	ND	1.9	0.96
BENZO(G,H,I)PERYLENE	ND	1.9	0.96
CHRYSENE	ND	1.9	0.96
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.96
FLUORANTHENE	ND	1.9	0.96
FLUORENE	ND	1.9	0.96
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.96
NAPHTHALENE	ND	1.9	0.96
PHENANTHRENE	ND	1.9	0.96
PYRENE	ND	1.9	0.96
2-METHYLNAPHTHALENE	ND	1.9	0.96
1-METHYLNAPHTHALENE	ND	1.9	0.96
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.5
BUTYLBENZYLPHTHALATE	ND	19	9.5
DI-N-BUTYLPHTHALATE	ND	19	9.5
DI-N-OCTYLPHTHALATE	ND	19	9.5
DIETHYLPHTHALATE	ND	19	9.5
DIMETHYLPHTHALATE	ND	19	9.5
N-NITROSODIMETHYLAMINE	ND	1.9	0.96

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	258	375.8	68.7	40-130
2-FLUOROBIPHENYL	237	375.8	63.2	45-130
TERPHENYL-D14	342	375.8	91.0	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/16/12 18:31
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: RBJ112	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 9.0
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.93
ACENAPHTHYLENE	ND	1.9	0.93
ANTHRACENE	ND	1.9	0.93
BENZO(A)ANTHRACENE	ND	1.9	0.93
BENZO(A)PYRENE	ND	1.9	0.93
BENZO(B)FLUORANTHENE	ND	1.9	0.93
BENZO(K)FLUORANTHENE	ND	1.9	0.93
BENZO(G,H,I)PERYLENE	ND	1.9	0.93
CHRYSENE	ND	1.9	0.93
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.93
FLUORANTHENE	ND	1.9	0.93
FLUORENE	ND	1.9	0.93
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.93
NAPHTHALENE	ND	1.9	0.93
PHENANTHRENE	ND	1.9	0.93
PYRENE	ND	1.9	0.93
2-METHYLNAPHTHALENE	ND	1.9	0.93
1-METHYLNAPHTHALENE	ND	1.9	0.93
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	9.2
BUTYLBENZYLPHTHALATE	ND	18	9.2
DI-N-BUTYLPHTHALATE	ND	18	9.2
DI-N-OCTYLPHTHALATE	ND	18	9.2
DIETHYLPHTHALATE	ND	18	9.2
DIMETHYLPHTHALATE	ND	18	9.2
N-NITROSODIMETHYLAMINE	ND	1.9	0.93

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	233	366.3	63.6	40-130
2-FLUOROBIPHENYL	222	366.3	60.5	45-130
TERPHENYL-D14	293	366.3	80.1	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/16/12 18:49
Lab Samp ID: B146-06	Dilution Factor: 1
Lab File ID: RBJ113	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : 5.7
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.90
ACENAPHTHYLENE	ND	1.8	0.90
ANTHRACENE	ND	1.8	0.90
BENZO(A)ANTHRACENE	ND	1.8	0.90
BENZO(A)PYRENE	ND	1.8	0.90
BENZO(B)FLUORANTHENE	ND	1.8	0.90
BENZO(K)FLUORANTHENE	ND	1.8	0.90
BENZO(G,H,I)PERYLENE	ND	1.8	0.90
CHRYSENE	ND	1.8	0.90
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.90
FLUORANTHENE	ND	1.8	0.90
FLUORENE	ND	1.8	0.90
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.90
NAPHTHALENE	ND	1.8	0.90
PHENANTHRENE	ND	1.8	0.90
PYRENE	ND	1.8	0.90
2-METHYLNAPHTHALENE	ND	1.8	0.90
1-METHYLNAPHTHALENE	ND	1.8	0.90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	8.9
BUTYLBENZYLPHTHALATE	ND	18	8.9
DI-N-BUTYLPHTHALATE	ND	18	8.9
DI-N-OCTYLPHTHALATE	ND	18	8.9
DIETHYLPHTHALATE	ND	18	8.9
DIMETHYLPHTHALATE	ND	18	8.9
N-NITROSODIMETHYLAMINE	ND	1.8	0.90

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	254	353.4	71.8	40-130
2-FLUOROBIPHENYL	242	353.4	68.6	45-130
TERPHENYL-D14	301	353.4	85.1	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 13:26
Sample ID: MBLK1S	Date Analyzed: 02/16/12 16:01
Lab Samp ID: SVB023SB	Dilution Factor: 1
Lab File ID: RBJ104	Matrix : SOIL
Ext Btch ID: SVB023S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	258	333.3	77.3	40-130
2-FLUOROBIPHENYL	240	333.3	72.0	45-130
TERPHENYL-D14	287	333.3	86.1	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 3550B/8270C SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB023SB	SVB023SX	SVB023SY		
LAB FILE ID:	RBJ104	RBJ107	RBJ108		
DATE EXTRACTED:	02/16/1213:26	02/16/1213:26	02/16/1213:26	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1216:01	02/16/1216:57	02/16/1217:16	DATE RECEIVED:	02/16/12
PREP. BATCH:	SVB023S	SVB023S	SVB023S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	301	90	333	287	86	5	10-130	50
Acenaphthylene	ND	333	328	98	333	312	94	5	20-130	50
Anthracene	ND	333	282	85	333	269	81	5	20-130	50
Benzo(a)anthracene	ND	333	282	85	333	280	84	1	30-130	50
Benzo(a)pyrene	ND	333	298	89	333	283	85	5	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	304	91	2	40-130	50
Benzo(k)fluoranthene	ND	333	319	96	333	297	89	7	30-140	50
Benzo(g,h,i)perylene	ND	333	313	94	333	302	91	3	30-140	50
Chrysene	ND	333	271	81	333	272	82	0	30-140	50
Dibenzo(a,h)anthracene	ND	333	320	96	333	309	93	3	40-140	50
Fluoranthene	ND	333	298	90	333	292	87	2	30-130	50
Fluorene	ND	333	326	98	333	309	93	5	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	323	97	333	312	94	3	20-160	50
Naphthalene	ND	333	274	82	333	264	79	4	10-130	50
Phenanthrene	ND	333	286	86	333	275	82	4	20-130	50
Pyrene	ND	333	286	86	333	279	84	2	20-150	50
2-Methylnaphthalene	ND	333	298	89	333	287	86	4	30-150	50
1-Methylnaphthalene	ND	333	299	90	333	288	86	4	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	297	89	333	293	88	1	30-130	50
Butylbenzylphthalate	ND	333	283	85	333	280	84	1	30-150	50
Di-n-butylphthalate	ND	333	300	90	333	286	86	5	10-150	50
Di-n-octylphthalate	ND	333	298	90	333	281	84	6	20-150	50
Diethylphthalate	ND	333	338	101	333	317	95	6	30-150	50
Dimethylphthalate	ND	333	333	100	333	315	95	5	30-150	50
N-Nitrosodimethylamine	ND	333	255	76	333	248	74	3	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	273	82	333	263	79	40-130
2-Fluorobiphenyl	333	256	77	333	242	73	45-130
Terphenyl-d14	333	279	84	333	269	81	45-135

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 07:17
Sample ID: TB-021512	Date Analyzed: 02/22/12 07:17
Lab Samp ID: B146-07R	Dilution Factor: 1
Lab File ID: EB21031A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	31J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.6	40.00	84.0	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B146	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 16:00
Sample ID: SL-147-SA5C-SB-55.5	Date Analyzed: 02/21/12 16:00
Lab Samp ID: B146-01W	Dilution Factor: 0.86
Lab File ID: EB21009A	Matrix : SOIL
Ext Btch ID: GMB007S	% Moisture : 10.9
Calib. Ref.: EB21002A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.97	0.48

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.52	1.930	78.6	60-130

RL : Reporting Limit
Methanol Extraction: 02/16/12 15:09

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 16:42
Sample ID: SL-147-SA5C-SB-40.5	Date Analyzed: 02/21/12 16:42
Lab Samp ID: B146-03W	Dilution Factor: 0.92
Lab File ID: EB21010A	Matrix : SOIL
Ext Btch ID: GMB007S	% Moisture : 10.9
Calib. Ref.: EB21002A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.52

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.63	2.065	78.9	60-130

RL : Reporting Limit
Methanol Extraction: 02/16/12 15:09

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/21/12 18:06
Sample ID: SL-261-SA5A-SB-9.0	Date Analyzed: 02/21/12 18:06
Lab Samp ID: B146-05W	Dilution Factor: 0.95
Lab File ID: EB21012A	Matrix : SOIL
Ext Btch ID: GMB007S	% Moisture : 5.6
Calib. Ref.: EB21011A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.61	2.013	80.1	60-130

RL : Reporting Limit
Methanol Extraction: 02/16/12 15:09

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B146	Date Extracted: 02/21/12 11:48
Sample ID: MBLK1S	Date Analyzed: 02/21/12 11:48
Lab Samp ID: GMB007SQ	Dilution Factor: 1
Lab File ID: EB21003A	Matrix : SOIL
Ext Btch ID: GMB007S	% Moisture : NA
Calib. Ref.: EB21002A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.73	2.000	86.3	60-130

RL : Reporting Limit
Methanol Extraction: 02/16/12 15:09

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB007SQ	GMB007SX	GMB007SY		
LAB FILE ID:	EB21003A	EB21004A	EB21005A		
DATE EXTRACTED:	02/21/1211:48	02/21/1212:30	02/21/1213:12	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1211:48	02/21/1212:30	02/21/1213:12	DATE RECEIVED:	02/21/12
PREP. BATCH:	GMB007S	GMB007S	GMB007S		
CALIB. REF:	EB21002A	EB21002A	EB21002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	22.8	91	25.0	25.7	103	12	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	1.96	98	2.00	2.06	103	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/17/12 13:34
Lab Samp ID: B146-02	Dilution Factor: 1
Lab File ID: BB17013A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : 11.3
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	560	280
ISOPROPANOL	ND	560	280
METHANOL	ND	560	280

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/17/12 13:51
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: BB17014A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : 9.0
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	550	270
ISOPROPANOL	ND	550	270
METHANOL	ND	550	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/17/12 14:08
Lab Samp ID: B146-06	Dilution Factor: 1
Lab File ID: BB17015A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : 5.7
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	530	270
ISOPROPANOL	ND	530	270
METHANOL	ND	530	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/17/12 11:50
Lab Samp ID: MEB003SB	Dilution Factor: 1
Lab File ID: BB17009A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : NA
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB003SB	MEB003SL	MEB003SY		
LAB FILE ID:	BB17009A	BB17010A	BB17012A		
DATE EXTRACTED:	02/17/1210:30	02/17/1210:30	02/17/1210:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1211:50	02/17/1212:11	02/17/1213:19	DATE RECEIVED:	02/17/12
PREP. BATCH:	MEB003S	MEB003S	MEB003S		
CALIB. REF:	BB17003A	BB17003A	BB17003A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	7920	79	10000	9050	90	13	50-150	50
Isopropanol	ND	10000	9320	93	10000	9120	91	2	50-150	50
Methanol	ND	10000	7310	73	10000	6940	69	5	50-150	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B146	Date Extracted	: 02/17/12 10:30
Sample ID	: SL-147-SA5C-SB-55.0-56.0	Date Analyzed	: 02/21/12 12:24
Lab Samp ID	: B146-02	Dilution Factor	: 1
Lab File ID	: BB21007A	Matrix	: SOIL
Ext Btch ID	: PEB003S	% Moisture	: 11.3
Calib. Ref.	: BB21003A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	17	8.5
ETHYLENE GLYCOL	ND	11	5.6
PROPYLENE GLYCOL	ND	11	5.6

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/21/12 13:18
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: BB21008A	Matrix : SOIL
Ext Btch ID: PEB003S	% Moisture : 9.0
Calib. Ref.: BB21003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.2
ETHYLENE GLYCOL	ND	11	5.5
PROPYLENE GLYCOL	ND	11	5.5

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B146	Date Extracted	: 02/17/12 10:30
Sample ID	: SL-261-SA5A-SB-8.5-9.5	Date Analyzed	: 02/21/12 13:32
Lab Samp ID	: B146-06	Dilution Factor	: 1
Lab File ID	: BB21009A	Matrix	: SOIL
Ext Btch ID	: PEB003S	% Moisture	: 5.7
Calib. Ref.	: BB21003A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.0
ETHYLENE GLYCOL	ND	11	5.3
PROPYLENE GLYCOL	ND	11	5.3

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B146	Date Extracted: 02/17/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/21/12 11:14
Lab Samp ID: PEB003SB	Dilution Factor: 1
Lab File ID: BB21004A	Matrix : SOIL
Ext Btch ID: PEB003S	% Moisture : NA
Calib. Ref.: BB21003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 8015M

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: PEB003SB PEB003SL PEB003SC
LAB FILE ID: BB21004A BB21005A BB21006A
DATE EXTRACTED: 02/17/1210:30 02/17/1210:30 02/17/1210:30 DATE COLLECTED: NA
DATE ANALYZED: 02/21/1211:14 02/21/1211:32 02/21/1211:45 DATE RECEIVED: 02/17/12
PREP. BATCH: PEB003S PEB003S PEB003S
CALIB. REF: BB21003A BB21003A BB21003A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	42.9	86	50.0	46.4	93	8	50-150	50
Ethylene Glycol	ND	50.0	46.5	93	50.0	50.1	100	8	50-150	50
Propylene Glycol	ND	25.0	18.6	74	25.0	19.5	78	5	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 15:15
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/17/12 19:30
Lab Samp ID: B146-02R	Dilution Factor: 1
Lab File ID: LB17011A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : 11.3
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	1.1J	1.1	0.56
EFH(C12-C14)	ND	1.1	0.56
EFH(C15-C20)	ND	1.1	0.56
EFH(C21-C30)	15	1.1	0.56
EFH(C30-C40)	19	1.1	0.56
TOTAL EFH(C8-C40)	35	1.1	0.56

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	10.3	11.27	91.6	50-150
HEXACOSANE	2.78	2.818	98.8	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 15:15
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/17/12 18:56
Lab Samp ID: B146-04R	Dilution Factor: 1
Lab File ID: LB17009A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : 9.0
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.84J	1.1	0.55
EFH(C12-C14)	ND	1.1	0.55
EFH(C15-C20)	ND	1.1	0.55
EFH(C21-C30)	4.0	1.1	0.55
EFH(C30-C40)	5.3	1.1	0.55
TOTAL EFH(C8-C40)	10	1.1	0.55

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.41	10.99	85.6	50-150
HEXACOSANE	2.66	2.747	96.8	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/17/12 15:15
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/17/12 18:40
Lab Samp ID: B146-06R	Dilution Factor: 1
Lab File ID: LB17008A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : 5.7
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.69J	1.1	0.53
EFH(C12-C14)	ND	1.1	0.53
EFH(C15-C20)	ND	1.1	0.53
EFH(C21-C30)	ND	1.1	0.53
EFH(C30-C40)	ND	1.1	0.53
TOTAL EFH(C8-C40)	0.69J	1.1	0.53

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.42	10.60	88.9	50-150
HEXACOSANE	2.99	2.651	113	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B146	Date Extracted: 02/17/12 15:15
Sample ID: MBLK1S	Date Analyzed: 02/17/12 17:49
Lab Samp ID: DSB021SB	Dilution Factor: 1
Lab File ID: LB17005A	Matrix : SOIL
Ext Btch ID: DSB021S	% Moisture : NA
Calib. Ref.: LB17003A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.61J	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	0.61J	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	9.55	10.00	95.5	50-150
HEXACOSANE	2.59	2.500	104	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB021SB	DSB021SL	DSB021SC		
LAB FILE ID:	LB17005A	LB17006A	LB17007A		
DATE EXTRACTED:	02/17/1215:15	02/17/1215:15	02/17/1215:15	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1217:49	02/17/1218:06	02/17/1218:23	DATE RECEIVED:	02/17/12
PREP. BATCH:	DSB021S	DSB021S	DSB021S		
CALIB. REF:	LB17003A	LB17003A	LB17003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	0.612J	50.0	60.5	121	50.0	57.6	115	5	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	10.3	103	10.0	9.43	94	50-150
Hexacosane	2.50	2.88	115	2.50	2.58	103	50-150

METHOD 3550B/8082
PCBs

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B146	Date Extracted	: 02/16/12 14:21
Sample ID	: SL-147-SA5C-SB-55.0-56.0	Date Analyzed	: 02/18/12 00:01
Lab Samp ID	: B146-02	Dilution Factor	: 1
Lab File ID	: KB17023A	Matrix	: SOIL
Ext Btch ID	: CPB032S	% Moisture	: 11.3
Calib. Ref.	: KB17016A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.96|0.96
AROCLOR 1221	(ND)|ND	1.9	0.96|0.96
AROCLOR 1232	(ND)|ND	1.9	0.96|0.96
AROCLOR 1242	(ND)|ND	1.9	0.96|0.96
AROCLOR 1248	(1400E)|550E	1.9	0.96|0.96
AROCLOR 1254	(ND)|ND	1.9	0.96|0.96
AROCLOR 1260	(ND)|ND	1.9	0.96|0.96
AROCLOR 1262	(ND)|ND	1.9	0.96|0.96
AROCLOR 1268	(ND)|ND	1.9	0.96|0.96
AROCLOR 5432	(ND)|ND	3.7	1.9|1.9
AROCLOR 5442	(ND)|ND	3.7	1.9|1.9
AROCLOR 5460	(ND)|ND	3.7	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.631)|3.692	6.012	(93.7)|61.4	45-120
TETRACHLORO-M-XYLENE	(6.791)|4.533	6.012	(113)|75.4	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 14:21
Sample ID: SL-147-SA5C-SB-55.0-56.0DL	Date Analyzed: 02/20/12 10:10
Lab Samp ID: B146-02T	Dilution Factor: 20
Lab File ID: KB20007A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : 11.3
Calib. Ref.: KB20002A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	38	19|19
AROCLOR 1221	(ND)|ND	38	19|19
AROCLOR 1232	(ND)|ND	38	19|19
AROCLOR 1242	(ND)|ND	38	19|19
AROCLOR 1248	(1500)|1200	38	19|19
AROCLOR 1254	(ND)|ND	38	19|19
AROCLOR 1260	(ND)|ND	38	19|19
AROCLOR 1262	(ND)|ND	38	19|19
AROCLOR 1268	(ND)|ND	38	19|19
AROCLOR 5432	(ND)|ND	74	38|38
AROCLOR 5442	(ND)|ND	74	38|38
AROCLOR 5460	(ND)|ND	74	38|38

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(ND)|ND	6.012	(DO)|DO	45-120
TETRACHLORO-M-XYLENE	(ND)|ND	6.012	(DO)|DO	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 14:21
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/18/12 00:56
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: KB17024A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : 9.0
Calib. Ref.: KB17016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.93|0.93
AROCLOR 1221	(ND)|ND	1.9	0.93|0.93
AROCLOR 1232	(ND)|ND	1.9	0.93|0.93
AROCLOR 1242	(ND)|ND	1.9	0.93|0.93
AROCLOR 1248	(3.9)|3.2	1.9	0.93|0.93
AROCLOR 1254	(ND)|ND	1.9	0.93|0.93
AROCLOR 1260	(ND)|ND	1.9	0.93|0.93
AROCLOR 1262	(ND)|ND	1.9	0.93|0.93
AROCLOR 1268	(ND)|ND	1.9	0.93|0.93
AROCLOR 5432	(ND)|ND	3.6	1.9|1.9
AROCLOR 5442	(ND)|ND	3.6	1.9|1.9
AROCLOR 5460	(ND)|ND	3.6	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.752)|3.943	5.860	(98.1)|67.3	45-120
TETRACHLORO-M-XYLENE	(6.592)|4.528	5.860	(112)|77.3	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 14:21
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/18/12 01:53
Lab Samp ID: B146-06	Dilution Factor: 1
Lab File ID: KB17025A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : 5.7
Calib. Ref.: KB17016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.8	0.90|0.90
AROCLOR 1221	(ND)|ND	1.8	0.90|0.90
AROCLOR 1232	(ND)|ND	1.8	0.90|0.90
AROCLOR 1242	(ND)|ND	1.8	0.90|0.90
AROCLOR 1248	(ND)|ND	1.8	0.90|0.90
AROCLOR 1254	(ND)|ND	1.8	0.90|0.90
AROCLOR 1260	(ND)|ND	1.8	0.90|0.90
AROCLOR 1262	(ND)|ND	1.8	0.90|0.90
AROCLOR 1268	(ND)|ND	1.8	0.90|0.90
AROCLOR 5432	(ND)|ND	3.5	1.8|1.8
AROCLOR 5442	(ND)|ND	3.5	1.8|1.8
AROCLOR 5460	(ND)|ND	3.5	1.8|1.8

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.884)|4.426	5.655	(104)|78.3	45-120
TETRACHLORO-M-XYLENE	(6.506)|4.263	5.655	(115)|75.4	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/16/12 14:21
Sample ID: MBLK1S	Date Analyzed: 02/17/12 19:20
Lab Samp ID: 60B032SB	Dilution Factor: 1
Lab File ID: KB17018A	Matrix : SOIL
Ext Btch ID: CPB032S	% Moisture : NA
Calib. Ref.: KB17016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.626)|4.256	5.333	(105)|79.8	45-120
TETRACHLORO-M-XYLENE	(5.721)|4.635	5.333	(107)|86.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B032SB	60B032SL	60B032SC		
LAB FILE ID:	KB17018A	KB17019A	KB17020A		
DATE EXTRACTED:	02/16/1214:21	02/16/1214:21	02/16/1214:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:20	02/17/1220:16	02/17/1221:12	DATE RECEIVED:	02/16/12
PREP. BATCH:	CPB032S	CPB032S	CPB032S		
CALIB. REF:	KB17016A	KB17016A	KB17016A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(60.7)|52.1	(91)|78	66.7	(57.9)|52.9	(87)|79	(5)|2	50-130	50
Aroclor 1260	(ND)|ND	66.7	(69.2)|53.6	(104)|80	66.7	(69.0)|53.9	(103)|81	(0)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(59.2)|53.0	(89)|79	66.7	(56.9)|51.4	(85)|77	(4)|3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.568)|4.212	(104)|79.0	5.333	(5.281)|4.032	(99.0)|75.6	45-120
Tetrachloro-m-xylene	5.333	(5.495)|4.669	(103)|87.6	5.333	(5.136)|4.358	(96.3)|81.7	10-160

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/23/12 21:22
Lab Samp ID: B146-02	Dilution Factor: 1
Lab File ID: PB23021A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2150	2000	107	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/23/12 23:28
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: PB23024A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2040	2000	102	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: SL-261-SA5A-SB-8.5-9.5	Date Analyzed: 02/24/12 00:15
Lab Samp ID: B146-06	Dilution Factor: .99
Lab File ID: PB23025A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	99	50
RDX	ND	99	50
1,3,5-TRINITROBENZENE	ND	99	50
1,3-DINITROBENZENE	ND	99	50
TETRYL	ND	99	50
NITROBENZENE	ND	99	50
2,4,6-TRINITROTOLUENE	ND	99	50
4-AMINO-2,6-DINITROTOLUENE	ND	99	50
2-AMINO-4,6-DINITROTOLUENE	ND	99	50
2,6-DINITROTOLUENE	ND	99	50
2,4-DINITROTOLUENE	ND	99	50
2-NITROTOLUENE	ND	99	50
3-NITROTOLUENE	ND	99	50
4-NITROTOLUENE	ND	99	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	99
2,6-DIAMINO-4-NITROTOLUENE	ND	200	99

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2060	1980	104	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:11
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB23015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2150	2000	107	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 8330A

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SL	EXB010SC		
LAB FILE ID:	PB23015A	PB23016A	PB23017A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:11	02/23/1217:53	02/23/1218:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2230	112	2000	2220	111	0	70-130	50
RDX	ND	2000	2120	106	2000	2120	106	0	70-130	50
1,3,5-Trinitrobenzene	ND	2000	2250	113	2000	2250	112	0	70-130	50
1,3-Dinitrobenzene	ND	2000	2040	102	2000	2060	103	1	70-130	50
Tetryl	ND	2000	1780	89	2000	1760	88	1	70-130	50
Nitrobenzene	ND	2000	2090	104	2000	2120	106	2	70-140	50
2,4,6-Trinitrotoluene	ND	2000	1870	93	2000	1960	98	5	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	2000	2130	106	2000	2160	108	1	70-130	50
2-Amino-4,6-Dinitrotoluene	ND	2000	2280	114	2000	2250	113	1	70-130	50
2,6-Dinitrotoluene	ND	2000	2330	117	2000	2280	114	2	70-130	50
2,4-Dinitrotoluene	ND	2000	2150	108	2000	2110	105	2	70-130	50
2-Nitrotoluene	ND	2000	2150	108	2000	2180	109	1	70-130	50
3-Nitrotoluene	ND	2000	2110	106	2000	2100	105	0	70-130	50
4-Nitrotoluene	ND	2000	2110	105	2000	2080	104	1	70-140	50
2,4-Diamino-6-nitrotoluene	ND	2000	2000	100	2000	1960	98	2	30-150	50
2,6-Diamino-4-nitrotoluene	ND	2000	2060	103	2000	2030	101	2	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2120	106	2000	2190	109	65-135

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 8330A

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 .99 1
SAMPLE ID: SL-147-SA5C-SB-55.0-56.0
LAB SAMP ID: B146-02 B146-02M B146-02S
LAB FILE ID: PB23021A PB23022A PB23023A
DATE EXTRACTED: 02/22/1218:07 02/22/1218:07 02/22/1218:07 DATE COLLECTED: 02/15/12
DATE ANALYZED: 02/23/1221:22 02/23/1222:04 02/23/1222:46 DATE RECEIVED: 02/16/12
PREP. BATCH: EXB010S EXB010S EXB010S
CALIB. REF: PB23020A PB23020A PB23020A

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	1980	2240	113	2000	2280	114	1	70-130	50
RDX	ND	1980	2110	106	2000	2090	105	1	70-130	50
1,3,5-Trinitrobenzene	ND	1980	2210	112	2000	2270	113	1	70-130	50
1,3-Dinitrobenzene	ND	1980	2060	104	2000	2100	105	1	70-130	50
Tetryl	ND	1980	1600	81	2000	1680	84	4	60-130	50
Nitrobenzene	ND	1980	2070	104	2000	2100	105	1	70-140	50
2,4,6-Trinitrotoluene	ND	1980	1790	90	2000	1860	93	3	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	1980	2170	110	2000	2210	111	1	70-140	50
2-Amino-4,6-Dinitrotoluene	ND	1980	2250	114	2000	2340	117	3	70-130	50
2,6-Dinitrotoluene	ND	1980	2280	115	2000	2410	121	5	70-130	50
2,4-Dinitrotoluene	ND	1980	2110	107	2000	2210	110	3	70-130	50
2-Nitrotoluene	ND	1980	2160	109	2000	2180	109	0	70-130	50
3-Nitrotoluene	ND	1980	2160	109	2000	2160	108	1	70-130	50
4-Nitrotoluene	ND	1980	2090	106	2000	2130	106	0	70-140	50
2,4-Diamino-6-nitrotoluene	ND	1980	1950	98	2000	2040	102	4	20-150	50
2,6-Diamino-4-nitrotoluene	ND	1980	2030	103	2000	2030	102	1	20-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	1980	2050	103	2000	2090	104	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: SL-147-SA5C-SB-55.0-56.0	Date Analyzed: 02/24/12 10:58
Lab Samp ID: B146-02	Dilution Factor: 1
Lab File ID: PB24008A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2410	2000	121	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/15/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: SL-147-SA5C-SB-40.0-41.0	Date Analyzed: 02/24/12 11:39
Lab Samp ID: B146-04	Dilution Factor: 1
Lab File ID: PB24011A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2380	2000	119	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B146	Date Extracted	: 02/22/12 18:07
Sample ID	: SL-261-SA5A-SB-8.5-9.5	Date Analyzed	: 02/24/12 11:53
Lab Samp ID	: B146-06	Dilution Factor	: .99
Lab File ID	: PB24012A	Matrix	: SOIL
Ext Btch ID	: EXB010S	% Moisture	: NA
Calib. Ref.	: PB24002A	Instrument ID	: T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	990	490
PETN	ND	990	490

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2350	1980	119	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B146	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/24/12 09:48
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB24003A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2480	2000	124	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: Method 8332

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SX	EXB010SY		
LAB FILE ID:	PB24003A	PB24004A	PB24005A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1209:48	02/24/1210:02	02/24/1210:16	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB24002A	PB24002A	PB24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7500	7810	104	7500	7750	103	1	50-150	50
PETN	ND	7500	8030	107	7500	7820	104	3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2430	121	2000	2350	117	65-135

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: Method 8332

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 .99 .99
SAMPLE ID: SL-147-SA5C-SB-55.0-56.0
LAB SAMP ID: B146-02 B146-02M B146-02S
LAB FILE ID: PB24008A PB24009A PB24010A
DATE EXTRACTED: 02/22/1218:07 02/22/1218:07 02/22/1218:07 DATE COLLECTED: 02/15/12
DATE ANALYZED: 02/24/1210:58 02/24/1211:12 02/24/1211:25 DATE RECEIVED: 02/16/12
PREP. BATCH: EXB010S EXB010S EXB010S
CALIB. REF: PB24002A PB24002A PB24002A

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7420	7570	102	7420	7530	101	0	50-150	50
PETN	ND	7420	7830	105	7420	7770	105	1	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	1980	2390	121	1980	2350	119	65-135

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B146	Date Extracted	: 02/17/12 10:51
Sample ID	: SL-147-SA5C-SB-55.0-56.0	Date Analyzed	: 02/24/12 18:16
Lab Samp ID	: B146-02	Dilution Factor	: 0.976
Lab File ID	: 98B14051	Matrix	: SOIL
Ext Btch ID	: IMB016S	% Moisture	: 11.3
Calib. Ref.	: 98B14040	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	9500	26.4	13.2
Antimony	ND	0.220	0.110
Arsenic	2.77	0.440	0.220
Barium	78.1	0.440	0.220
Beryllium	0.401	0.110	0.0550
Boron	ND	5.50	2.75
Cadmium	0.126	0.110	0.0550
Calcium	4250	22.0	11.0
Chromium	10.4	0.440	0.220
Cobalt	4.05	0.110	0.0550
Copper	5.70	0.440	0.220
Iron	18300	22.0	11.0
Lead	4.45	0.220	0.110
Magnesium	3970	11.0	5.50
Manganese	262	0.550	0.275
Molybdenum	0.212	0.110	0.0550
Nickel	6.60	0.440	0.220
Potassium	3280	66.0	33.0
Selenium	ND	0.440	0.220
Silver	ND	0.110	0.0550
Sodium	209	110	55.0
Strontium	11.4	0.550	0.275
Thallium	0.278	0.110	0.0550
Tin	ND	11.0	5.50
Titanium	994	1.10	0.550
Vanadium	23.6	0.110	0.0550
Zinc	60.3	3.30	1.65
Lithium	27.0	2.20	1.10
Phosphorus	365	13.2	6.60
Zirconium	ND	5.50	2.75

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B146	Date Extracted	: 02/17/12 10:51
Sample ID	: SL-147-SA5C-SB-40.0-41.0	Date Analyzed	: 02/24/12 18:37
Lab Samp ID	: B146-04	Dilution Factor	: 1.00
Lab File ID	: 98B14054	Matrix	: SOIL
Ext Btch ID	: IMB016S	% Moisture	: 9.0
Calib. Ref.	: 98B14052	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	11700	26.4	13.2
Antimony	ND	0.220	0.110
Arsenic	3.68	0.440	0.220
Barium	88.0	0.440	0.220
Beryllium	0.507	0.110	0.0549
Boron	ND	5.49	2.75
Cadmium	0.159	0.110	0.0549
Calcium	5370	22.0	11.0
Chromium	12.7	0.440	0.220
Cobalt	4.51	0.110	0.0549
Copper	6.87	0.440	0.220
Iron	19400	22.0	11.0
Lead	5.19	0.220	0.110
Magnesium	4260	11.0	5.49
Manganese	287	0.549	0.275
Molybdenum	0.334	0.110	0.0549
Nickel	7.86	0.440	0.220
Potassium	2790	65.9	33.0
Selenium	ND	0.440	0.220
Silver	ND	0.110	0.0549
Sodium	347	110	54.9
Strontium	20.6	0.549	0.275
Thallium	0.251	0.110	0.0549
Tin	ND	11.0	5.49
Titanium	990	1.10	0.549
Vanadium	28.7	0.110	0.0549
Zinc	58.4	3.30	1.65
Lithium	24.0	2.20	1.10
Phosphorus	395	13.2	6.59
Zirconium	ND	5.49	2.75

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/15/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B146	Date Extracted	: 02/17/12 10:51
Sample ID	: SL-261-SA5A-SB-8.5-9.5	Date Analyzed	: 02/24/12 18:44
Lab Samp ID	: B146-06	Dilution Factor	: 0.962
Lab File ID	: 98B14055	Matrix	: SOIL
Ext Btch ID	: IMB016S	% Moisture	: 5.7
Calib. Ref.	: 98B14052	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	10100	24.5	12.2
Antimony	ND	0.204	0.102
Arsenic	4.11	0.408	0.204
Barium	64.7	0.408	0.204
Beryllium	0.439	0.102	0.0510
Boron	ND	5.10	2.55
Cadmium	0.100J	0.102	0.0510
Calcium	2430	20.4	10.2
Chromium	13.6	0.408	0.204
Cobalt	4.65	0.102	0.0510
Copper	5.53	0.408	0.204
Iron	18700	20.4	10.2
Lead	3.57	0.204	0.102
Magnesium	4340	10.2	5.10
Manganese	223	0.510	0.255
Molybdenum	0.399	0.102	0.0510
Nickel	7.78	0.408	0.204
Potassium	2430	61.2	30.6
Selenium	ND	0.408	0.204
Silver	ND	0.102	0.0510
Sodium	168	102	51.0
Strontium	13.6	0.510	0.255
Thallium	0.242	0.102	0.0510
Tin	ND	10.2	5.10
Titanium	965	1.02	0.510
Vanadium	27.4	0.102	0.0510
Zinc	52.1	3.06	1.53
Lithium	23.2	2.04	1.02
Phosphorus	375	12.2	6.12
Zirconium	ND	5.10	2.55

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
SDG NO. : 12B146	Date Extracted: 02/17/12 10:51
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:13
Lab Samp ID: IMB016SB	Dilution Factor: 1
Lab File ID: 98B14042	Matrix : SOIL
Ext Btch ID: IMB016S	% Moisture : NA
Calib. Ref.: 98B14040	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B146
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB016SB	IMB016SL	IMB016SC		
LAB FILE ID:	98B14042	98B14043	98B14044		
DATIME EXTRCTD:	02/17/1210:51	02/17/1210:51	02/17/1210:51	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1217:13	02/24/1217:20	02/24/1217:27	DATE RECEIVED:	02/17/12
PREP. BATCH:	IMB016S	IMB016S	IMB016S		
CALIB. REF:	98B14040	98B14040	98B14040		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2500	100	2500	2540	101	1	80-120	20
Antimony	ND	25.0	25.2	101	25.0	24.9	100	1	80-120	20
Arsenic	ND	25.0	24.1	97	25.0	24.7	99	2	80-120	20
Barium	ND	25.0	25.0	100	25.0	24.6	99	1	80-120	20
Beryllium	ND	25.0	25.8	103	25.0	25.1	100	3	80-120	20
Boron	ND	25.0	26.1	104	25.0	25.7	103	2	80-120	20
Cadmium	ND	25.0	24.8	99	25.0	24.4	98	2	80-120	20
Calcium	ND	2500	2590	104	2500	2600	104	0	80-120	20
Chromium	ND	25.0	24.7	99	25.0	24.6	98	0	80-120	20
Cobalt	ND	25.0	24.4	97	25.0	24.8	99	2	80-120	20
Copper	ND	25.0	24.3	97	25.0	24.1	97	1	80-120	20
Iron	ND	2500	2580	103	2500	2570	103	0	80-120	20
Lead	ND	25.0	25.0	100	25.0	25.1	100	0	80-120	20
Magnesium	ND	2500	2440	98	2500	2500	100	3	80-120	20
Manganese	ND	25.0	25.1	101	25.0	25.1	101	0	80-120	20
Molybdenum	ND	25.0	24.7	99	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	24.2	97	0	80-120	20
Potassium	ND	2500	2590	104	2500	2620	105	1	80-120	20
Selenium	ND	25.0	24.2	97	25.0	24.3	97	1	80-120	20
Silver	ND	25.0	25.0	100	25.0	24.4	98	2	80-120	20
Sodium	ND	2500	2470	99	2500	2450	98	1	80-120	20
Strontium	ND	25.0	25.3	101	25.0	25.5	102	1	80-120	20
Thallium	ND	25.0	25.0	100	25.0	25.4	102	2	80-120	20
Tin	ND	25.0	27.2	109	25.0	27.1	109	0	80-120	20
Titanium	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Vanadium	ND	25.0	24.7	99	25.0	24.6	98	1	80-120	20
Zinc	ND	50.0	47.3	95	50.0	47.4	95	0	80-120	20
Lithium	ND	25.0	25.7	103	25.0	24.9	100	3	80-120	20
Phosphorus	ND	250	239	96	250	242	97	1	80-120	20
Zirconium	ND	25.0	26.2	105	25.0	26.4	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B146
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1
DILTN FACTR: 0.962 0.962
SAMPLE ID: SL-146-SA5C-SB-47.5-48.5
CONTROL NO.: B130-02 B130-02A
LAB FILE ID: 98B14048 98B14047
DATIME EXTRCTD: 02/17/1210:51 02/17/1210:51 DATE COLLECTED: 02/13/12
DATIME ANALYZD: 02/24/1217:55 02/24/1217:48 DATE RECEIVED: 02/13/12
PREP. BATCH: IMB016S IMB016S
CALIB. REF: 98B14040 98B14040

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	6610	2680	9020	90	75-125
Antimony	ND	26.8	26.0	97	75-125
Arsenic	2.32	26.8	26.8	92	75-125
Barium	49.3	26.8	74.7	95	75-125
Beryllium	0.293	26.8	26.7	99	75-125
Boron	ND	26.8	27.5	103	75-125
Cadmium	0.102J	26.8	25.4	95	75-125
Calcium	2420	2680	4990	96	75-125
Chromium	8.85	26.8	33.1	90	75-125
Cobalt	2.91	26.8	27.2	91	75-125
Copper	4.47	26.8	28.2	89	75-125
Iron	12900	2680	15200	87	75-125
Lead	3.05	26.8	28.5	95	75-125
Magnesium	2540	2680	4900	88	75-125
Manganese	167	26.8	188	81	75-125
Molybdenum	0.495	26.8	26.6	97	75-125
Nickel	4.66	26.8	28.5	89	75-125
Potassium	2000	2680	4680	100	75-125
Selenium	ND	26.8	25.4	95	75-125
Silver	ND	26.8	25.4	95	75-125
Sodium	219	2680	2710	93	75-125
Strontium	9.63	26.8	36.1	99	75-125
Thallium	0.228	26.8	26.6	98	75-125
Tin	ND	26.8	29.2	109	75-125
Titanium	677	26.8	699	82	75-125
Vanadium	17.4	26.8	41.6	91	75-125
Zinc	40.6	53.5	88.7	90	75-125
Lithium	15.4	26.8	41.4	97	75-125
Phosphorus	308	268	583	103	75-125
Zirconium	ND	26.8	28.2	105	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 10.1
DILUTION FACTOR: 0.962 4.81
SAMPLE ID: SL-146-SA5C-SB SL-146-SA5C-SB
EMAX SAMP ID: B130-02 B130-02J
LAB FILE ID: 98B14048 98B14049
DATE EXTRACTED: 02/17/1210:51 02/17/1210:51 DATE COLLECTED: 02/13/12
DATE ANALYZED: 02/24/1217:55 02/24/1218:02 DATE RECEIVED: 02/13/12
PREP. BATCH: IMB016S IMB016S
CALIB. REF: 98B14040 98B14040

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	6610	6910	5	10
Antimony	ND	ND	0	10
Arsenic	2.32	2.45	6	10
Barium	49.3	47.8	3	10
Beryllium	0.293	ND	NA	10
Boron	ND	ND	0	10
Cadmium	0.102J	ND	NA	10
Calcium	2420	2530	5	10
Chromium	8.85	8.95	1	10
Cobalt	2.91	2.96	2	10
Copper	4.47	4.48	0	10
Iron	12900	13300	3	10
Lead	3.05	3.08	1	10
Magnesium	2540	2680	5	10
Manganese	167	170	2	10
Molybdenum	0.495	0.499J	NA	10
Nickel	4.66	4.62	1	10
Potassium	2000	2010	1	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	219	ND	NA	10
Strontium	9.63	9.60	0	10
Thallium	0.228	0.404J	NA	10
Tin	ND	ND	0	10
Titanium	677	661	2	10
Vanadium	17.4	17.2	1	10
Zinc	40.6	40.9	1	10
Lithium	15.4	13.9	9	10
Phosphorus	308	314	2	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB017SB	ND	1	NA	0.100	0.0500	02/21/1217:00	02/21/1213:00	M47B014012	M47B014010	HGB017S	NA	02/21/12
LCS1S	HGB017SL	0.877	1	NA	0.100	0.0500	02/21/1217:02	02/21/1213:00	M47B014013	M47B014010	HGB017S	NA	02/21/12
LCD1S	HGB017SC	0.877	1	NA	0.100	0.0500	02/21/1217:04	02/21/1213:00	M47B014014	M47B014010	HGB017S	NA	02/21/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1.01	11.3	0.114	0.0569	02/21/1217:28	02/21/1213:00	M47B014025	M47B014022	HGB017S	02/15/12	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	0.993	9.0	0.109	0.0546	02/21/1217:30	02/21/1213:00	M47B014026	M47B014022	HGB017S	02/15/12	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	0.993	5.7	0.105	0.0527	02/21/1217:32	02/21/1213:00	M47B014027	M47B014022	HGB017S	02/15/12	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B146
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB017SB	HGB017SL	HGB017SC		
LAB FILE ID:	M47B014012	M47B014013	M47B014014		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	NA
DATIME ANALYZD:	02/21/1217:00	02/21/1217:02	02/21/1217:04	DATE RECEIVED:	02/21/12
PREP. BATCH:	HGB017S	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010	M47B014010		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.877	105	.833	.877	105	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B146
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	5.4
DILTN FACTR:	1.00	1.00		
SAMPLE ID:	129178-25-0152			
CONTROL NO.:	B171-01	B171-01A		
LAB FILE ID:	M47B014016	M47B014015		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATIME ANALYZD:	02/21/1217:08	02/21/1217:06	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.881	.893	101	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 5.4

DILUTION FACTOR:	1.00	5.02		
SAMPLE ID:	129178-25-0152	129178-25-0152DL		
EMAX SAMP ID:	B171-01	B171-01J		
LAB FILE ID:	M47B014016	M47B014017		
DATE EXTRACTED:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATE ANALYZED:	02/21/1217:08	02/21/1217:10	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.00	0.500	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	5.95	1	NA	1.00	0.500	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	5.91	1	NA	1.00	0.500	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-147-SA5C-SB-55.0-56.0	B146-02	1.64	1	11.3	1.13	0.564	02/16/1217:51	02/16/1212:37	AB21-29	AB21-20	ICB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	6.35	1	9.0	1.10	0.549	02/16/1218:07	02/16/1212:37	AB21-30	AB21-20	ICB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	2.24	1	5.7	1.06	0.530	02/16/1218:24	02/16/1212:37	AB21-31	AB21-20	ICB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.95	99	6.00	5.91	98	1	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	19.5	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	19.4	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1	11.3	1.69	0.846	02/16/1217:51	02/16/1212:37	AB21-29	AB21-20	ICB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	1.65	0.824	02/16/1218:07	02/16/1212:37	AB21-30	AB21-20	ICB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	1	5.7	1.59	0.795	02/16/1218:24	02/16/1212:37	AB21-31	AB21-20	ICB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.5	99	19.7	19.4	98	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB002SB	ND	1	NA	1.50	0.750	02/16/1215:58	02/16/1212:37	AB21-22	AB21-20	ICB002S	NA	02/16/12
LCS1S	ICB002SL	26.1	1	NA	1.50	0.750	02/16/1216:14	02/16/1212:37	AB21-23	AB21-20	ICB002S	NA	02/16/12
LCD1S	ICB002SC	26.1	1	NA	1.50	0.750	02/16/1216:31	02/16/1212:37	AB21-24	AB21-20	ICB002S	NA	02/16/12
SL-147-SA5C-SB-55.0-56.0	B146-02	1.13J	1	11.3	1.69	0.846	02/16/1217:51	02/16/1212:37	AB21-29	AB21-20	ICB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	1.65	0.824	02/16/1218:07	02/16/1212:37	AB21-30	AB21-20	ICB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	2.14	1	5.7	1.59	0.795	02/16/1218:24	02/16/1212:37	AB21-31	AB21-20	ICB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB002SB	ICB002SL	ICB002SC		
LAB FILE ID:	AB21-22	AB21-23	AB21-24		
DATE EXTRACTED:	02/16/1212:37	02/16/1212:37	02/16/1212:37	DATE COLLECTED:	NA
DATE ANALYZED:	02/16/1215:58	02/16/1216:14	02/16/1216:31	DATE RECEIVED:	02/16/12
PREP. BATCH:	ICB002S	ICB002S	ICB002S		
CALIB. REF:	AB21-20	AB21-20	AB21-20		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.1	98	26.6	26.1	98	0	90-110	20

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB002SB	ND	1	NA	1.00	0.500	02/17/1218:27	02/17/1214:19	IB17010	IB17008	HCB002S	NA	02/17/12
MBLK1S	HCB002SQ	ND	1	NA	1.00	0.500	02/17/1218:37	02/17/1214:19	IB17011	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SL	8.61	1	NA	1.00	0.500	02/17/1219:09	02/17/1214:19	IB17012	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SX	8.96	1	NA	1.00	0.500	02/17/1219:19	02/17/1214:19	IB17013	IB17008	HCB002S	NA	02/17/12
LCS2S	CIB002SL	125	10	NA	10.0	5.00	02/17/1219:29	02/17/1214:19	IB17014	IB17008	HCB002S	NA	02/17/12
LCS2S	CIB002SX	125	10	NA	10.0	5.00	02/17/1219:40	02/17/1214:19	IB17015	IB17008	HCB002S	NA	02/17/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1	11.3	1.13	0.564	02/17/1220:53	02/17/1214:19	IB17022	IB17020	HCB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-55.0-56.0	B146-02R	ND	1	11.3	1.13	0.564	02/17/1221:03	02/17/1214:19	IB17023	IB17020	HCB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	1.10	0.549	02/17/1221:13	02/17/1214:19	IB17024	IB17020	HCB002S	02/15/1214:15	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04R	ND	1	9.0	1.10	0.549	02/17/1221:24	02/17/1214:19	IB17025	IB17020	HCB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	1	5.7	1.06	0.530	02/17/1221:34	02/17/1214:19	IB17026	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06R	ND	1	5.7	1.06	0.530	02/17/1221:45	02/17/1214:19	IB17027	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5DUP	B146-06D	ND	1	5.7	1.06	0.530	02/17/1221:55	02/17/1214:19	IB17028	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5DUP	B146-06Z	ND	1	5.7	1.06	0.530	02/17/1222:06	02/17/1214:19	IB17029	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS	B146-06G	157	10	5.7	10.6	5.30	02/17/1222:58	02/17/1214:19	IB17034	IB17032	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS1	B146-06G1	169	10	5.7	10.6	5.30	02/17/1223:08	02/17/1214:19	IB17035	IB17032	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS	B146-06M	9.73	1	5.7	1.06	0.530	02/21/1217:33	02/17/1214:19	IB21011	IB21001	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS1	B146-06M1	9.86	1	5.7	1.06	0.530	02/21/1217:44	02/17/1214:19	IB21012	IB21001	HCB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 10
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB002SB CIB002SL
LAB FILE ID: IB17010 IB17014
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1218:27 02/17/1219:29 DATE RECEIVED: 02/17/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17008 IB17008

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CSB002SL		
LAB FILE ID:	IB17010	IB17012		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:09	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.61	86	80-120

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: 5.7
DILUTION FACTOR: 1 10
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5
LAB SAMP ID: B146-06 B146-06G
LAB FILE ID: IB17026 IB17034
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: 02/15/12 16:20
DATE ANALYZED: 02/17/1221:34 02/17/1222:58 DATE RECEIVED: 02/16/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17020 IB17032

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	198	157	79	75-125

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: 5.7
DILUTION FACTOR: 1 1
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5
LAB SAMP ID: B146-06 B146-06M
LAB FILE ID: IB17026 IB21011
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: 02/15/12 16:20
DATE ANALYZED: 02/17/1221:34 02/21/1217:33 DATE RECEIVED: 02/16/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17020 IB21001

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.6	9.73	92	75-125

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	5.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	SL-261-SA5A-SB-8.5-9.5			
EMAX SAMP ID:	B146-06	B146-06D		
LAB FILE ID:	IB17026	IB17028		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	02/15/12 16:20
DATE ANALYZED:	02/17/1221:34	02/17/1221:55	DATE RECEIVED:	02/16/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17020	IB17020		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	DUPL RSLT (mg/kg)	RPD RSLT %	QC LIMIT (%)
Hexavalent Chromium	ND	ND	0	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	5.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	SL-261-SA5A-SB-8.5-9.5			
EMAX SAMP ID:	B146-06R	B146-06Z		
LAB FILE ID:	IB17027	IB17029		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	02/15/12 16:20
DATE ANALYZED:	02/17/1221:45	02/17/1222:06	DATE RECEIVED:	02/16/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17020	IB17020		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	DUPL RSLT (mg/kg)	RPD RSLT %	QC LIMIT (%)
Hexavalent Chromium	ND	ND	0	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB002SB	ND	1	NA	20.0	10.0	02/17/1214:55	02/17/1209:45	JB17009	JB17008	PCB002S	NA	02/17/12
LCS1S	PCB002SL	240	1	NA	20.0	10.0	02/17/1215:37	02/17/1209:45	JB17011	JB17008	PCB002S	NA	02/17/12
LCD1S	PCB002SC	236	1	NA	20.0	10.0	02/17/1215:59	02/17/1209:45	JB17012	JB17008	PCB002S	NA	02/17/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1	11.3	22.5	11.3	02/17/1217:52	02/17/1209:45	JB17016	JB17008	PCB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	22.0	11.0	02/17/1218:55	02/17/1209:45	JB17019	JB17018	PCB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	1	5.7	21.2	10.6	02/17/1219:16	02/17/1209:45	JB17020	JB17018	PCB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB002SB	PCB002SL	PCB002SC		
LAB FILE ID:	JB17009	JB17011	JB17012		
DATE EXTRACTED:	02/17/1209:45	02/17/1209:45	02/17/1209:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1214:55	02/17/1215:37	02/17/1215:59	DATE RECEIVED:	02/17/12
PREP. BATCH:	PCB002S	PCB002S	PCB002S		
CALIB. REF:	JB17008	JB17008	JB17008		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	240	96	250	236	94	2	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB002SB	ND	1	NA	1.00	0.500	02/17/1218:27	02/17/1214:19	IB17010	IB17008	HCB002S	NA	02/17/12
MBLK1S	HCB002SQ	ND	1	NA	1.00	0.500	02/17/1218:37	02/17/1214:19	IB17011	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SL	8.61	1	NA	1.00	0.500	02/17/1219:09	02/17/1214:19	IB17012	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SX	8.96	1	NA	1.00	0.500	02/17/1219:19	02/17/1214:19	IB17013	IB17008	HCB002S	NA	02/17/12
LCS2S	CIB002SL	125	10	NA	10.0	5.00	02/17/1219:29	02/17/1214:19	IB17014	IB17008	HCB002S	NA	02/17/12
LCS2S	CIB002SX	125	10	NA	10.0	5.00	02/17/1219:40	02/17/1214:19	IB17015	IB17008	HCB002S	NA	02/17/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1	11.3	1.13	0.564	02/17/1220:53	02/17/1214:19	IB17022	IB17020	HCB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-55.0-56.0	B146-02R	ND	1	11.3	1.13	0.564	02/17/1221:03	02/17/1214:19	IB17023	IB17020	HCB002S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	1.10	0.549	02/17/1221:13	02/17/1214:19	IB17024	IB17020	HCB002S	02/15/1214:15	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04R	ND	1	9.0	1.10	0.549	02/17/1221:24	02/17/1214:19	IB17025	IB17020	HCB002S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	1	5.7	1.06	0.530	02/17/1221:34	02/17/1214:19	IB17026	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06R	ND	1	5.7	1.06	0.530	02/17/1221:45	02/17/1214:19	IB17027	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5DUP	B146-06D	ND	1	5.7	1.06	0.530	02/17/1221:55	02/17/1214:19	IB17028	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06Z	ND	1	5.7	1.06	0.530	02/17/1222:06	02/17/1214:19	IB17029	IB17020	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS	B146-06G	157	10	5.7	10.6	5.30	02/17/1222:58	02/17/1214:19	IB17034	IB17032	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS1	B146-06G1	169	10	5.7	10.6	5.30	02/17/1223:08	02/17/1214:19	IB17035	IB17032	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS	B146-06M	9.73	1	5.7	1.06	0.530	02/21/1217:33	02/17/1214:19	IB21011	IB21001	HCB002S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS1	B146-06M1	9.86	1	5.7	1.06	0.530	02/21/1217:44	02/17/1214:19	IB21012	IB21001	HCB002S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 10
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB002SB CIB002SL
LAB FILE ID: IB17010 IB17014
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1218:27 02/17/1219:29 DATE RECEIVED: 02/17/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17008 IB17008

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CSB002SL		
LAB FILE ID:	IB17010	IB17012		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:09	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.61	86	80-120

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: 5.7
DILUTION FACTOR: 1 10
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5
LAB SAMP ID: B146-06 B146-06G
LAB FILE ID: IB17026 IB17034
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: 02/15/12 16:20
DATE ANALYZED: 02/17/1221:34 02/17/1222:58 DATE RECEIVED: 02/16/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17020 IB17032

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	198	157	79	75-125

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX: SOIL % MOISTURE: 5.7
DILUTION FACTOR: 1 1
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5
LAB SAMP ID: B146-06 B146-06M
LAB FILE ID: IB17026 IB21011
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: 02/15/12 16:20
DATE ANALYZED: 02/17/1221:34 02/21/1217:33 DATE RECEIVED: 02/16/12
PREP. BATCH: HCB002S HCB002S
CALIB. REF: IB17020 IB21001

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.6	9.73	92	75-125

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	5.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	SL-261-SA5A-SB-8.5-9.5			
EMAX SAMP ID:	B146-06	B146-06D		
LAB FILE ID:	IB17026	IB17028		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	02/15/12 16:20
DATE ANALYZED:	02/17/1221:34	02/17/1221:55	DATE RECEIVED:	02/16/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17020	IB17020		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	DUPL RSLT (mg/kg)	RPD RSLT %	QC LIMIT (%)
Hexavalent Chromium	ND	ND	0	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B146
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	5.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	SL-261-SA5A-SB-8.5-9.5			
EMAX SAMP ID:	B146-06R	B146-06Z		
LAB FILE ID:	IB17027	IB17029		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	02/15/12 16:20
DATE ANALYZED:	02/17/1221:45	02/17/1222:06	DATE RECEIVED:	02/16/12
PREP. BATCH:	HCB002S	HCB002S		
CALIB. REF:	IB17020	IB17020		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	DUPL RSLT (mg/kg)	RPD RSLT %	QC LIMIT (%)
Hexavalent Chromium	ND	ND	0	20

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CNB008SB	ND	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00810	CNB00808	CNB008S	NA	02/17/12
LCS1S	CNB008SL	2.45	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00811	CNB00808	CNB008S	NA	02/17/12
LCD1S	CNB008SC	2.49	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00812	CNB00808	CNB008S	NA	02/17/12
SL-147-SA5C-SB-55.0-56.0	B146-02	ND	1	11.3	0.564	0.282	02/17/1216:18	02/17/1209:30	CNB00816	CNB00808	CNB008S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	ND	1	9.0	0.549	0.275	02/17/1216:18	02/17/1209:30	CNB00817	CNB00808	CNB008S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	ND	1	5.7	0.530	0.265	02/17/1216:17	02/17/1209:30	CNB00813	CNB00808	CNB008S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5DUP	B146-06D	ND	1	5.7	0.530	0.265	02/17/1216:17	02/17/1209:30	CNB00814	CNB00808	CNB008S	02/15/1216:20	02/16/12
SL-261-SA5A-SB-8.5-9.5MS	B146-06M	2.56	1	5.7	0.530	0.265	02/17/1216:18	02/17/1209:30	CNB00815	CNB00808	CNB008S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B146
SAMPLE ID: LCS1S/LCD1D
CONTROL NO.: CNB008SL/C

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 09:30
DATE ANALYZED: 02/17/12 16:17/16:18

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	2.50	2.45	98	2.50	2.49	100	2	85-125	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B146
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5MS
CONTROL NO.: B146-06M

DATE RECEIVED: 02/16/12
DATE EXTRACTED: 02/17/12 09:30
DATE ANALYZED: 02/17/12 16:18

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Cyanide	ND	2.50	2.56	102	75-125

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B146 DATE RECEIVED: 02/16/12
SAMPLE ID: SL-261-SA5A-SB-8.5-9.5DUP DATE EXTRACTED: 02/17/12 09:30
CONTROL NO.: B146-06D DATE ANALYZED: 02/17/12 16:17

ACCESSION:

PARAMETER	SAMPLE (mg/kg)	DUP. SAMPLE (mg/kg)	RPD (%)	RPD LIMIT (%)
Cyanide	ND	ND	0	20

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B146
Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-147-SA5C-SB-55.0-56.0	B146-02	8.71	1	11.3	NA	NA	02/16/1215:06	02/16/1215:06	PHB02401	PHB024S	PHB024S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-55.0-56.0DUP	B146-02D	8.75	1	11.3	NA	NA	02/16/1215:07	02/16/1215:06	PHB02402	PHB024S	PHB024S	02/15/1210:25	02/16/12
SL-147-SA5C-SB-40.0-41.0	B146-04	8.79	1	9.0	NA	NA	02/16/1215:09	02/16/1215:06	PHB02403	PHB024S	PHB024S	02/15/1214:15	02/16/12
SL-261-SA5A-SB-8.5-9.5	B146-06	9.21	1	5.7	NA	NA	02/16/1215:11	02/16/1215:06	PHB02404	PHB024S	PHB024S	02/15/1216:20	02/16/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B146
SAMPLE ID: SL-147-SA5C-SB-55.0-56.0DUP
CONTROL NO.: B146-02D

DATE RECEIVED: 02/16/12
DATE EXTRACTED: 02/16/12 15:06
DATE ANALYZED: 02/16/12 15:07

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	8.71	8.75	0.04	+/-0.1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/17/12 21:42
Sample ID: TB-021612	Date Analyzed: 02/17/12 21:42
Lab Samp ID: B160-05	Dilution Factor: 1
Lab File ID: RBV231	Matrix : WATER
Ext Btch ID: VO01B12	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.96	10.00	99.6	80-120
4-BROMOFLUOROBENZENE	10.9	10.00	109	86-115
TOLUENE-D8	10.3	10.00	103	88-110
DIBROMOFLUOROMETHANE	10.4	10.00	104	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B160	Date Extracted: 02/17/12 20:17
Sample ID: MBLK1W	Date Analyzed: 02/17/12 20:17
Lab Samp ID: VO01B12B	Dilution Factor: 1
Lab File ID: RBV228	Matrix : WATER
Ext Btch ID: VO01B12	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.04	10.00	90.4	80-120
4-BROMOFLUOROBENZENE	10.6	10.00	106	86-115
TOLUENE-D8	10.3	10.00	103	88-110
DIBROMOFLUOROMETHANE	10.1	10.00	101	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01B12B	VO01B12L	VO01B12C		
LAB FILE ID:	RBV228	RBV225	RBV226		
DATE EXTRACTED:	02/17/1220:17	02/17/1218:52	02/17/1219:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1220:17	02/17/1218:52	02/17/1219:21	DATE RECEIVED:	02/17/12
PREP. BATCH:	VO01B12	VO01B12	VO01B12		
CALIB. REF:	RJV602	RJV602	RJV602		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	10.4	104	10.0	9.84	98	5	70-130	30
1,1,1-Trichloroethane	ND	10.0	9.87	99	10.0	9.69	97	2	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.4	104	10.0	10.5	105	2	70-130	30
1,1,2-Trichloroethane	ND	10.0	10.4	104	10.0	9.95	100	5	70-130	30
1,1-Dichloroethane	ND	10.0	10.1	101	10.0	9.99	100	1	70-130	30
1,1-Dichloroethene	ND	10.0	8.69	87	10.0	8.68	87	0	60-130	30
1,1-Dichloropropene	ND	10.0	10.5	105	10.0	10.3	103	2	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	8.95	89	10.0	8.42	84	6	60-130	30
1,2,3-Trichloropropane	ND	10.0	10.1	101	10.0	10.1	101	0	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	8.69	87	10.0	8.25	83	5	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	9.97	100	10.0	10.2	102	3	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.16	92	10.0	8.94	89	3	60-130	30
1,2-Dichlorobenzene	ND	10.0	10.4	104	10.0	10.4	104	0	70-130	30
1,2-Dichloroethane	ND	10.0	9.68	97	10.0	9.27	93	4	70-130	30
1,2-Dichloropropane	ND	10.0	10.4	104	10.0	10.3	103	1	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	9.54	95	10.0	9.23	92	3	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	9.71	97	10.0	9.95	100	2	70-130	30
1,3-Dichlorobenzene	ND	10.0	10.4	104	10.0	10.5	105	1	70-130	30
1,3-Dichloropropane	ND	10.0	10.2	102	10.0	9.90	99	3	70-130	30
1,4-Dichlorobenzene	ND	10.0	10.3	103	10.0	10.4	104	1	70-130	30
2,2-Dichloropropane	ND	10.0	9.61	96	10.0	9.91	99	3	50-140	30
2-Chlorotoluene	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
4-Chlorotoluene	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
Benzene	ND	10.0	10.1	101	10.0	9.77	98	3	70-130	30
Bromobenzene	ND	10.0	9.88	99	10.0	10.0	100	2	70-130	30
Bromochloromethane	ND	10.0	9.42	94	10.0	9.51	95	1	70-130	30
Bromodichloromethane	ND	10.0	9.73	97	10.0	9.30	93	5	70-130	30
Bromoform	ND	10.0	10.7	107	10.0	10.6	106	1	60-140	30
Bromomethane	ND	10.0	8.56	86	10.0	8.63	86	1	50-140	30
Carbon Tetrachloride	ND	10.0	10.2	102	10.0	9.82	98	4	70-130	30
Chlorobenzene	ND	10.0	10.5	105	10.0	10.3	103	2	70-120	30
Chloroethane	ND	10.0	8.52	85	10.0	8.58	86	1	70-140	30
Chloroform	ND	10.0	9.93	99	10.0	9.81	98	1	70-130	30
Chloromethane	ND	10.0	8.86	89	10.0	8.90	89	0	60-130	30
cis-1,2-Dichloroethene	ND	10.0	9.47	95	10.0	9.48	95	0	70-130	30
cis-1,3-Dichloropropene	ND	10.0	10.3	103	10.0	10.2	102	1	70-130	30
Dibromochloromethane	ND	10.0	10.4	104	10.0	9.84	98	5	70-130	30
Dibromomethane	ND	10.0	10.2	102	10.0	9.71	97	5	70-140	30
Dichlorodifluoromethane	ND	10.0	7.85	79	10.0	8.03	80	2	50-140	30
Ethylbenzene	ND	10.0	10.1	101	10.0	9.72	97	4	70-130	30
Hexachlorobutadiene	ND	10.0	8.87	89	10.0	8.73	87	2	60-140	30
Isopropyl Benzene	ND	10.0	10.8	108	10.0	11.1	111	3	70-150	30
m,p-Xylene	ND	20.0	19.9	99	20.0	19.3	97	3	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	9.98	100	10.0	9.48	95	5	70-140	30
Methylene Chloride	ND	10.0	9.84	98	10.0	9.81	98	0	70-130	30
n-Butylbenzene	ND	10.0	9.76	98	10.0	9.97	100	2	60-130	30
n-Propylbenzene	ND	10.0	10.3	103	10.0	10.6	106	3	70-140	30
o-Xylene	ND	10.0	10.0	100	10.0	9.62	96	4	70-130	30

p-Isopropyltoluene	ND	10.0	10.4	104	10.0	10.5	105	1	70-140	30
Sec-Butylbenzene	ND	10.0	10.5	105	10.0	10.8	108	3	70-130	30
Styrene	ND	10.0	10.5	105	10.0	10.2	102	3	70-130	30
Tert-Butylbenzene	ND	10.0	10.7	107	10.0	10.9	109	2	70-130	30
Tetrachloroethene	ND	10.0	10.6	106	10.0	10.3	103	3	70-130	30
Toluene	ND	10.0	10.2	102	10.0	9.92	99	3	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	9.16	92	10.0	9.00	90	2	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	10.4	104	10.0	9.99	100	4	70-140	30
Trichloroethene	ND	10.0	10.8	108	10.0	10.5	105	2	70-130	30
Trichlorofluoromethane	ND	10.0	8.28	83	10.0	8.42	84	2	70-140	30
Vinyl Chloride	ND	10.0	7.97	80	10.0	7.98	80	0	60-150	30
Acetone	ND	50.0	49.8	100	50.0	50.0	100	0	50-150	30
2-Butanone (MEK)	ND	50.0	56.0	112	50.0	55.6	111	1	60-140	30
2-Hexanone	ND	50.0	56.9	114	50.0	54.8	110	4	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	58.1	116	50.0	55.6	111	4	60-140	30
Freon113	ND	10.0	9.97	100	10.0	9.87	99	1	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	10.6	106	10.0	10.1	101	4	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	11.7	117	10.0	11.6	116	1	50-150	30
Chlorotrifluoroethylene	ND	10.0	9.54	95	10.0	9.48	95	1	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.92	89	10.0	8.64	86	80-120
4-Bromofluorobenzene	10.0	9.98	100	10.0	10.2	102	86-115
Toluene-d8	10.0	10.1	101	10.0	9.92	99	88-110
Dibromofluoromethane	10.0	9.99	100	10.0	9.68	97	86-118

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 00:32
Sample ID: SL-260-SA5A-SB-6.0	Date Analyzed: 02/22/12 00:32
Lab Samp ID: B160-01	Dilution Factor: 0.96
Lab File ID: RBB325	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 7.8
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.2	1.0
1,1,1-TRICHLOROETHANE	ND	5.2	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.2	1.0
1,1,2-TRICHLOROETHANE	ND	5.2	1.0
1,1-DICHLOROETHANE	ND	5.2	1.0
1,1-DICHLOROETHENE	ND	5.2	1.0
1,1-DICHLOROPROPENE	ND	5.2	1.0
1,2,3-TRICHLOROBENZENE	ND	5.2	2.1
1,2,3-TRICHLOROPROPANE	ND	5.2	2.1
1,2,4-TRICHLOROBENZENE	ND	5.2	2.1
1,2,4-TRIMETHYLBENZENE	ND	5.2	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.2	2.1
1,2-DICHLOROBENZENE	ND	5.2	1.0
1,2-DICHLOROETHANE	ND	5.2	1.0
1,2-DICHLOROPROPANE	ND	5.2	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.2	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.2	1.0
1,3-DICHLOROBENZENE	ND	5.2	1.0
1,3-DICHLOROPROPANE	ND	5.2	1.0
1,4-DICHLOROBENZENE	ND	5.2	1.0
2,2-DICHLOROPROPANE	ND	5.2	2.1
2-CHLOROTOLUENE	ND	5.2	1.0
4-CHLOROTOLUENE	ND	5.2	1.0
BENZENE	ND	5.2	1.0
BROMOBENZENE	ND	5.2	1.0
BROMOCHLOROMETHANE	ND	5.2	1.0
BROMODICHLOROMETHANE	ND	5.2	1.0
BROMOFORM	ND	5.2	2.1
BROMOMETHANE	ND	5.2	2.1
CARBON TETRACHLORIDE	ND	5.2	1.0
CHLOROBENZENE	ND	5.2	1.0
CHLOROETHANE	ND	5.2	2.1
CHLOROFORM	ND	5.2	1.0
CHLOROMETHANE	ND	5.2	2.1
CIS-1,2-DICHLOROETHENE	ND	5.2	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.2	1.0
DIBROMOCHLOROMETHANE	ND	5.2	1.0
DIBROMOMETHANE	ND	5.2	1.0
DICHLORODIFLUOROMETHANE	ND	5.2	2.1
ETHYLBENZENE	ND	5.2	1.0
HEXACHLOROBUTADIENE	ND	5.2	2.1
ISOPROPYL BENZENE	ND	5.2	1.0
M,P-XYLENE	ND	5.2	2.1
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.2	1.0
METHYLENE CHLORIDE	ND	5.2	2.1
N-BUTYLBENZENE	ND	5.2	1.0
N-PROPYLBENZENE	ND	5.2	1.0
O-XYLENE	ND	5.2	1.0
P-ISOPROPYLTOLUENE	ND	5.2	1.0
SEC-BUTYLBENZENE	ND	5.2	1.0
STYRENE	ND	5.2	1.0
TERT-BUTYLBENZENE	ND	5.2	1.0
TETRACHLOROETHENE	ND	5.2	1.0
TOLUENE	ND	5.2	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.2	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.2	1.0
TRICHLOROETHENE	ND	5.2	1.0
TRICHLOROFLUOROMETHANE	ND	5.2	2.1
VINYL CHLORIDE	ND	5.2	2.1
ACETONE	ND	10	5.2
2-BUTANONE (MEK)	ND	10	5.2
2-HEXANONE	ND	10	5.2
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.2
FREON113	ND	5.2	2.1
2-CHLOROETHYL VINYL ETHER	ND	5.2	2.1
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.2	2.1
CHLOROTRIFLUOROETHYLENE	ND	5.2	2.1

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	54.4	52.06	104	80-120
4-BROMOFLUOROBENZENE	53.2	52.06	102	74-121
TOLUENE-D8	49.6	52.06	95.3	81-117
DIBROMOFLUOROMETHANE	51.7	52.06	99.2	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B160	Date Extracted: 02/21/12 18:47
Sample ID: MBLK1S	Date Analyzed: 02/21/12 18:47
Lab Samp ID: VO03B20B	Dilution Factor: 1
Lab File ID: RBB315	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	47.3	50.00	94.6	80-120
4-BROMOFLUOROBENZENE	50.9	50.00	102	74-121
TOLUENE-D8	48.0	50.00	95.9	81-117
DIBROMOFLUOROMETHANE	48.5	50.00	97.0	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B160	Date Extracted: 02/21/12 21:39
Sample ID: MBLK2S	Date Analyzed: 02/21/12 21:39
Lab Samp ID: VPB026SB	Dilution Factor: 1
Lab File ID: RBB320	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	51.9	50.00	104	80-120
4-BROMOFLUOROBENZENE	50.1	50.00	100	74-121
TOLUENE-D8	48.2	50.00	96.5	81-117
DIBROMOFLUOROMETHANE	50.4	50.00	101	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 5035/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VO03B20B VO03B20L VO03B20C
LAB FILE ID: RBB315 RBB310 RBB311
DATE EXTRACTED: 02/21/1218:47 02/21/1216:04 02/21/1216:36 DATE COLLECTED: NA
DATE ANALYZED: 02/21/1218:47 02/21/1216:04 02/21/1216:36 DATE RECEIVED: 02/21/12
PREP. BATCH: VO03B20 VO03B20 VO03B20
CALIB. REF: RBB256 RBB256 RBB256

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50.0	49.3	99	50.0	50.9	102	3	70-130	50
1,1,1-Trichloroethane	ND	50.0	49.6	99	50.0	50.5	101	2	60-130	50
1,1,2,2-Tetrachloroethane	ND	50.0	51.6	103	50.0	53.3	107	3	70-150	50
1,1,2-Trichloroethane	ND	50.0	49.4	99	50.0	50.8	102	3	70-140	50
1,1-Dichloroethane	ND	50.0	50.5	101	50.0	51.8	104	2	70-140	50
1,1-Dichloroethene	ND	50.0	48.8	98	50.0	49.5	99	1	60-130	50
1,1-Dichloropropene	ND	50.0	48.9	98	50.0	50.4	101	3	70-130	50
1,2,3-Trichlorobenzene	ND	50.0	48.8	98	50.0	48.4	97	1	60-150	50
1,2,3-Trichloropropane	ND	50.0	51.6	103	50.0	52.9	106	3	60-150	50
1,2,4-Trichlorobenzene	ND	50.0	50.7	101	50.0	50.6	101	0	60-140	50
1,2,4-Trimethylbenzene	ND	50.0	51.5	103	50.0	52.6	105	2	70-130	50
1,2-Dibromo-3-chloropropane	ND	50.0	47.7	95	50.0	48.6	97	2	50-150	50
1,2-Dichlorobenzene	ND	50.0	52.0	104	50.0	52.9	106	2	70-130	50
1,2-Dichloroethane	ND	50.0	47.2	94	50.0	48.4	97	3	60-140	50
1,2-Dichloropropane	ND	50.0	49.4	99	50.0	51.5	103	4	70-130	50
1,2-Dibromoethane (EDB)	ND	50.0	50.1	100	50.0	51.6	103	3	50-150	50
1,3,5-Trimethylbenzene	ND	50.0	51.9	104	50.0	53.3	107	3	70-130	50
1,3-Dichlorobenzene	ND	50.0	52.9	106	50.0	54.3	109	3	70-130	50
1,3-Dichloropropane	ND	50.0	49.6	99	50.0	51.4	103	4	70-140	50
1,4-Dichlorobenzene	ND	50.0	53.2	106	50.0	53.6	107	1	70-130	50
2,2-Dichloropropane	ND	50.0	51.2	102	50.0	51.2	102	0	40-140	50
2-Chlorotoluene	ND	50.0	51.4	103	50.0	52.5	105	2	70-130	50
4-Chlorotoluene	ND	50.0	52.3	105	50.0	53.2	106	2	70-130	50
Benzene	ND	50.0	48.9	98	50.0	50.0	100	2	70-130	50
Bromobenzene	ND	50.0	51.0	102	50.0	52.2	104	2	70-130	50
Bromochloromethane	ND	50.0	51.4	103	50.0	52.8	106	3	60-150	50
Bromodichloromethane	ND	50.0	48.6	97	50.0	50.4	101	4	60-130	50
Bromoform	ND	50.0	52.2	104	50.0	53.1	106	2	60-130	50
Bromomethane	ND	50.0	51.2	102	50.0	48.1	96	6	40-160	50
Carbon Tetrachloride	ND	50.0	46.3	93	50.0	48.7	97	5	50-130	50
Chlorobenzene	ND	50.0	49.7	99	50.0	50.8	102	2	70-130	50
Chloroethane	ND	50.0	52.6	105	50.0	50.4	101	4	60-150	50
Chloroform	ND	50.0	49.5	99	50.0	51.4	103	4	70-130	50
Chloromethane	ND	50.0	51.1	102	50.0	47.8	96	7	50-150	50
cis-1,2-Dichloroethene	ND	50.0	50.4	101	50.0	51.7	103	3	70-130	50
cis-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	51.3	103	2	60-130	50
Dibromochloromethane	ND	50.0	50.2	100	50.0	51.5	103	3	70-130	50
Dibromomethane	ND	50.0	49.6	99	50.0	50.2	100	1	70-130	50
Dichlorodifluoromethane	ND	50.0	48.6	97	50.0	45.9	92	6	50-130	50
Ethylbenzene	ND	50.0	50.0	100	50.0	51.1	102	2	70-130	50
Hexachlorobutadiene	ND	50.0	48.9	98	50.0	50.2	100	3	50-140	50
Isopropyl Benzene	ND	50.0	50.5	101	50.0	51.7	103	2	70-140	50
m,p-Xylene	ND	100	97.1	97	100	98.6	99	2	70-140	50
Methyl tert-butyl Ether (MTBE)	ND	50.0	48.5	97	50.0	49.8	100	3	60-150	50
Methylene Chloride	ND	50.0	49.5	99	50.0	51.5	103	4	70-130	50
n-Butylbenzene	ND	50.0	53.6	107	50.0	54.2	108	1	50-150	50
n-Propylbenzene	ND	50.0	52.2	104	50.0	53.1	106	2	70-130	50
o-Xylene	ND	50.0	49.0	98	50.0	50.2	100	2	70-130	50

p-Isopropyltoluene	ND	50.0	51.4	103	50.0	52.5	105	2	60-140	50
Sec-Butylbenzene	ND	50.0	50.8	102	50.0	51.9	104	2	70-130	50
Styrene	ND	50.0	53.5	107	50.0	55.1	110	3	60-140	50
Tert-Butylbenzene	ND	50.0	51.7	103	50.0	53.0	106	2	70-130	50
Tetrachloroethene	ND	50.0	48.6	97	50.0	50.0	100	3	70-130	50
Toluene	ND	50.0	49.0	98	50.0	50.4	101	3	70-130	50
Trans-1,2-Dichloroethene	ND	50.0	49.2	98	50.0	50.8	102	3	70-130	50
Trans-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	52.0	104	3	60-140	50
Trichloroethene	ND	50.0	48.5	97	50.0	49.1	98	1	70-130	50
Trichlorofluoromethane	ND	50.0	49.9	100	50.0	47.6	95	5	70-140	50
Vinyl Chloride	ND	50.0	51.1	102	50.0	49.5	99	3	60-150	50
Acetone	ND	250	243	97	250	250	100	3	40-160	50
2-Butanone (MEK)	ND	250	243	97	250	254	102	4	50-160	50
2-Hexanone	ND	250	244	98	250	254	102	4	60-160	50
4-Methyl-2-Pentanone (MIBK)	ND	250	242	97	250	256	103	6	70-160	50
Freon113	ND	50.0	50.1	100	50.0	51.2	102	2	50-140	50
2-Chloroethyl Vinyl Ether	ND	50.0	50.3	101	50.0	48.1	96	4	50-150	50
2-Chloro-1,1,1-trifluoroethane	ND	50.0	52.1	104	50.0	51.3	103	2	50-150	50
Chlorotrifluoroethylene	ND	50.0	53.0	106	50.0	49.1	98	8	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	46.2	92	50.0	46.6	93	80-120
4-Bromofluorobenzene	50.0	51.6	103	50.0	51.4	103	74-121
Toluene-d8	50.0	48.3	97	50.0	48.8	98	81-117
Dibromofluoromethane	50.0	48.2	96	50.0	48.4	97	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/21/12 21:25
Sample ID: TB-021612	Date Analyzed: 02/21/12 21:25
Lab Samp ID: B160-05	Dilution Factor: 1
Lab File ID: RBY344	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	4.61	5.000	92.3	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B160	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/17/12 19:29
Sample ID: SL-260-SA5A-SB-6.0	Date Analyzed: 02/17/12 19:29
Lab Samp ID: B160-01	Dilution Factor: 0.9
Lab File ID: RBY333	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : 7.8
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	9.8	4.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	16.4	19.52	84.2	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B160	Date Extracted: 02/17/12 15:27
Sample ID: MBLK1S	Date Analyzed: 02/17/12 15:27
Lab Samp ID: VOF5B12B	Dilution Factor: 1
Lab File ID: RBY327	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	18.3	20.00	91.6	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B160	Date Extracted: 02/17/12 16:57
Sample ID: MBLK2S	Date Analyzed: 02/17/12 16:57
Lab Samp ID: VPB024SB	Dilution Factor: 1
Lab File ID: RBY328	Matrix : SOIL
Ext Btch ID: VOF5B12	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	22.9	20.00	114	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 5035/8260B SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOF5B12B	VOF5B12L	VOF5B12C		
LAB FILE ID:	RBY327	RBY324	RBY325		
DATE EXTRACTED:	02/17/1215:27	02/17/1213:56	02/17/1214:26	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1215:27	02/17/1213:56	02/17/1214:26	DATE RECEIVED:	02/17/12
PREP. BATCH:	VOF5B12	VOF5B12	VOF5B12		
CALIB. REF:	RJY282	RJY282	RJY282		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	200	197	99	200	208	104	5	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	20.0	15.3	77	20.0	18.6	93	50-150

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/22/12 19:46
Lab Samp ID: B160-02	Dilution Factor: 1
Lab File ID: RBJ147	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 10.5
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	190	94
1,2-DICHLOROBENZENE	ND	190	94
1,3-DICHLOROBENZENE	ND	190	94
1,4-DICHLOROBENZENE	ND	190	94
2,4,5-TRICHLOROPHENOL	ND	190	94
2,4,6-TRICHLOROPHENOL	ND	190	94
2,4-DICHLOROPHENOL	ND	190	94
2,4-DIMETHYLPHENOL	ND	190	94
2,4-DINITROPHENOL	ND	370	190
2,4-DINITROTOLUENE	ND	190	94
2,6-DINITROTOLUENE	ND	190	94
2-CHLORONAPHTHALENE	ND	190	94
2-CHLOROPHENOL	ND	190	94
2-METHYLNAPHTHALENE	ND	190	94
2-METHYLPHENOL	ND	190	94
2-NITROANILINE	ND	190	94
2-NITROPHENOL	ND	190	94
3,3'-DICHLOROBENZIDINE	ND	190	94
3-NITROANILINE	ND	190	94
4,6-DINITRO-2-METHYLPHENOL	ND	370	190
4-BROMOPHENYL-PHENYLETHER	ND	190	94
4-CHLORO-3-METHYLPHENOL	ND	190	94
4-CHLOROANILINE	ND	190	94
4-CHLOROPHENYL-PHENYLETHER	ND	190	94
4-METHYLPHENOL (1)	ND	190	94
4-NITROANILINE	ND	190	94
4-NITROPHENOL	ND	370	190
ACENAPHTHENE	ND	190	94
ACENAPHTHYLENE	ND	190	94
ANTHRACENE	ND	190	94
BENZO(A)ANTHRACENE	ND	190	94
BENZO(A)PYRENE	ND	190	94
BENZO(B)FLUORANTHENE	ND	190	94
BENZO(K)FLUORANTHENE	ND	190	94
BENZO(G,H,I)PERYLENE	ND	190	94
BIS(2-CHLOROETHOXY)METHANE	ND	190	94
BIS(2-CHLOROETHYL)ETHER	ND	190	94
BIS(2-CHLOROISOPROPYL)ETHER	ND	190	94
BIS(2-ETHYLHEXYL)PHTHALATE	ND	190	94
BUTYLBENZYLPHTHALATE	ND	190	94
CHRYSENE	ND	190	94
DI-N-BUTYLPHTHALATE	ND	190	94
DI-N-OCTYLPHTHALATE	ND	190	94
DIBENZO(A,H)ANTHRACENE	ND	190	94
DIBENZOFURAN	ND	190	94
DIETHYLPHTHALATE	ND	190	94
DIMETHYLPHTHALATE	ND	190	94
FLUORANTHENE	ND	190	94
FLUORENE	ND	190	94
HEXACHLOROBENZENE	ND	190	94
HEXACHLOROBUTADIENE	ND	190	94
HEXACHLOROCYCLOPENTADIENE	ND	190	94
HEXACHLOROETHANE	ND	190	94
INDENO(1,2,3-CD)PYRENE	ND	190	94
ISOPHORONE	ND	190	94
N-NITROSO-DI-N-PROPYLAMINE	ND	190	94
N-NITROSODIPHENYLAMINE (2)	ND	190	94
NAPHTHALENE	ND	190	94
NITROBENZENE	ND	190	94
PENTACHLOROPHENOL	ND	370	190
PHENANTHRENE	ND	190	94
PHENOL	ND	190	94
PYRENE	ND	190	94
BENZYL ALCOHOL	ND	190	94
1-METHYLNAPHTHALENE	ND	190	94
1,2-DIPHENYLHYDRAZINE	ND	190	94
3,5-DIMETHYLPHENOL	ND	190	94
ANILINE	ND	370	190
BENZIDINE	ND	930	470
BENZOIC ACID	ND	750	370
CARBAZOLE	ND	190	94
N-NITROSODIMETHYLAMINE	ND	190	94
TETRALIN	ND	190	190
2-BUTOXYETHANOL	ND	190	190
2-PHENOXYETHANOL	ND	190	190

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	857	1117	76.7	35-130
2-FLUOROBIPHENYL	236	372.4	63.3	45-130
2-FLUOROPHENOL	705	1117	63.1	25-130
NITROBENZENE-D5	223	372.4	60.0	40-130
PHENOL-D5	682	1117	61.1	25-120
TERPHENYL-D14	312	372.4	83.7	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: SL-324-SA6-SB-25.0-26.0	Date Analyzed: 02/22/12 20:05
Lab Samp ID: B160-04	Dilution Factor: 1
Lab File ID: RBJ148	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 10.8
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	190	94
1,2-DICHLOROBENZENE	ND	190	94
1,3-DICHLOROBENZENE	ND	190	94
1,4-DICHLOROBENZENE	ND	190	94
2,4,5-TRICHLOROPHENOL	ND	190	94
2,4,6-TRICHLOROPHENOL	ND	190	94
2,4-DICHLOROPHENOL	ND	190	94
2,4-DIMETHYLPHENOL	ND	190	94
2,4-DINITROPHENOL	ND	370	190
2,4-DINITROTOLUENE	ND	190	94
2,6-DINITROTOLUENE	ND	190	94
2-CHLORONAPHTHALENE	ND	190	94
2-CHLOROPHENOL	ND	190	94
2-METHYLNAPHTHALENE	ND	190	94
2-METHYLPHENOL	ND	190	94
2-NITROANILINE	ND	190	94
2-NITROPHENOL	ND	190	94
3,3'-DICHLOROBENZIDINE	ND	190	94
3-NITROANILINE	ND	190	94
4,6-DINITRO-2-METHYLPHENOL	ND	370	190
4-BROMOPHENYL-PHENYLETHER	ND	190	94
4-CHLORO-3-METHYLPHENOL	ND	190	94
4-CHLOROANILINE	ND	190	94
4-CHLOROPHENYL-PHENYLETHER	ND	190	94
4-METHYLPHENOL (1)	ND	190	94
4-NITROANILINE	ND	190	94
4-NITROPHENOL	ND	370	190
ACENAPHTHENE	ND	190	94
ACENAPHTHYLENE	ND	190	94
ANTHRACENE	ND	190	94
BENZO(A)ANTHRACENE	ND	190	94
BENZO(A)PYRENE	ND	190	94
BENZO(B)FLUORANTHENE	ND	190	94
BENZO(K)FLUORANTHENE	ND	190	94
BENZO(G,H,I)PERYLENE	ND	190	94
BIS(2-CHLOROETHOXY)METHANE	ND	190	94
BIS(2-CHLOROETHYL)ETHER	ND	190	94
BIS(2-CHLOROISOPROPYL)ETHER	ND	190	94
BIS(2-ETHYLHEXYL)PHTHALATE	ND	190	94
BUTYLBENZYLPHTHALATE	ND	190	94
CHRYSENE	ND	190	94
DI-N-BUTYLPHTHALATE	ND	190	94
DI-N-OCTYLPHTHALATE	ND	190	94
DIBENZO(A,H)ANTHRACENE	ND	190	94
DIBENZOFURAN	ND	190	94
DIETHYLPHTHALATE	ND	190	94
DIMETHYLPHTHALATE	ND	190	94
FLUORANTHENE	ND	190	94
FLUORENE	ND	190	94
HEXACHLOROBENZENE	ND	190	94
HEXACHLOROBUTADIENE	ND	190	94
HEXACHLOROCYCLOPENTADIENE	ND	190	94
HEXACHLOROETHANE	ND	190	94
INDENO(1,2,3-CD)PYRENE	ND	190	94
ISOPHORONE	ND	190	94
N-NITROSO-DI-N-PROPYLAMINE	ND	190	94
N-NITROSODIPHENYLAMINE (2)	ND	190	94
NAPHTHALENE	ND	190	94
NITROBENZENE	ND	190	94
PENTACHLOROPHENOL	ND	370	190
PHENANTHRENE	ND	190	94
PHENOL	ND	190	94
PYRENE	ND	190	94
BENZYL ALCOHOL	ND	190	94
1-METHYLNAPHTHALENE	ND	190	94
1,2-DIPHENYLHYDRAZINE	ND	190	94
3,5-DIMETHYLPHENOL	ND	190	94
ANILINE	ND	370	190
BENZIDINE	ND	930	470
BENZOIC ACID	ND	750	370
CARBAZOLE	ND	190	94
N-NITROSODIMETHYLAMINE	ND	190	94
TETRALIN	ND	190	190
2-BUTOXYETHANOL	ND	190	190
2-PHENOXYETHANOL	ND	190	190

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	727	1121	64.8	35-130
2-FLUOROBIPHENYL	226	373.7	60.5	45-130
2-FLUOROPHENOL	664	1121	59.3	25-130
NITROBENZENE-D5	239	373.7	63.9	40-130
PHENOL-D5	676	1121	60.3	25-120
TERPHENYL-D14	314	373.7	84.1	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	767	1000	76.7	35-130
2-FLUOROBIPHENYL	254	333.3	76.2	45-130
2-FLUOROPHENOL	718	1000	71.8	25-130
NITROBENZENE-D5	255	333.3	76.6	40-130
PHENOL-D5	716	1000	71.6	25-120
TERPHENYL-D14	313	333.3	94.0	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB028SB SVB028SL SVB028SC
LAB FILE ID: RBJ142 RBJ143 RBJ144
DATE EXTRACTED: 02/22/1212:09 02/22/1212:09 02/22/1212:09 DATE COLLECTED: NA
DATE ANALYZED: 02/22/1218:12 02/22/1218:31 02/22/1218:49 DATE RECEIVED: 02/22/12
PREP. BATCH: SVB028S SVB028S SVB028S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	479	72	667	439	66	9	30-130	50
1,2-Dichlorobenzene	ND	667	499	75	667	450	68	10	40-130	50
1,3-Dichlorobenzene	ND	667	492	74	667	445	67	10	40-130	50
1,4-Dichlorobenzene	ND	667	493	74	667	444	67	10	30-130	50
2,4,5-Trichlorophenol	ND	667	528	79	667	487	73	8	40-130	50
2,4,6-Trichlorophenol	ND	667	538	81	667	493	74	9	40-130	50
2,4-Dichlorophenol	ND	667	517	77	667	471	71	9	40-130	50
2,4-Dimethylphenol	ND	667	513	77	667	462	69	10	40-130	50
2,4-Dinitrophenol	ND	667	398	60	667	420	63	5	20-130	50
2,4-Dinitrotoluene	ND	667	577	87	667	588	88	2	30-130	50
2,6-Dinitrotoluene	ND	667	546	82	667	538	81	1	50-130	50
2-Chloronaphthalene	ND	667	548	82	667	509	76	7	50-130	50
2-Chlorophenol	ND	667	537	81	667	457	69	16	30-130	50
2-Methylnaphthalene	ND	667	545	82	667	502	75	8	40-130	50
2-Methylphenol	ND	667	516	77	667	461	69	11	40-130	50
2-Nitroaniline	ND	667	531	80	667	520	78	2	40-130	50
2-Nitrophenol	ND	667	534	80	667	488	73	9	40-130	50
3,3'-Dichlorobenzidine	ND	667	565	85	667	533	80	6	50-130	50
3-Nitroaniline	ND	667	487	73	667	513	77	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	560	84	667	558	84	0	40-160	50
4-Bromophenyl-phenylether	ND	667	570	86	667	531	80	7	40-140	50
4-Chloro-3-Methylphenol	ND	667	528	79	667	481	72	9	30-130	50
4-Chloroaniline	ND	667	458	69	667	416	62	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	530	80	667	496	74	7	40-140	50
4-Methylphenol	ND	667	537	81	667	480	72	11	30-130	50
4-Nitroaniline	ND	667	587	88	667	554	83	6	50-130	50
4-Nitrophenol	ND	667	493	74	667	528	79	7	20-140	50
Acenaphthene	ND	667	534	80	667	493	74	8	30-130	50
Acenaphthylene	ND	667	542	81	667	508	76	6	30-130	50
Anthracene	ND	667	559	84	667	536	80	4	30-130	50
Benzo(a)anthracene	ND	667	612	92	667	573	86	7	40-130	50
Benzo(a)pyrene	ND	667	577	87	667	549	82	5	40-130	50
Benzo(b)fluoranthene	ND	667	620	93	667	593	89	4	40-140	50
Benzo(k)fluoranthene	ND	667	622	93	667	566	85	9	40-140	50
Benzo(g,h,i)perylene	ND	667	611	92	667	574	86	6	40-140	50
bis(2-Chloroethoxy)methane	ND	667	496	74	667	462	69	7	40-130	50
bis(2-Chloroethyl)ether	ND	667	500	75	667	460	69	8	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	533	80	667	449	67	17	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	676	101	667	634	95	6	40-150	50
Butylbenzylphthalate	ND	667	678	102	667	631	95	7	40-150	50
Chrysene	ND	667	631	95	667	585	88	8	40-140	50
Di-n-butylphthalate	ND	667	640	96	667	612	92	5	10-130	50
Di-n-octylphthalate	ND	667	679	102	667	634	95	7	20-140	50
Dibenzo(a,h)anthracene	ND	667	620	93	667	576	86	7	40-130	50
Dibenzofuran	ND	667	535	80	667	497	75	7	40-130	50
Diethylphthalate	ND	667	579	87	667	569	85	2	40-130	50
Dimethylphthalate	ND	667	575	86	667	545	82	5	40-130	50
Fluoranthene	ND	667	604	91	667	599	90	1	40-130	50

Fluorene	ND	667	547	82	667	524	79	4	30-130	50
Hexachlorobenzene	ND	667	591	89	667	560	84	5	30-130	50
Hexachlorobutadiene	ND	667	500	75	667	464	70	8	10-130	50
Hexachlorocyclopentadiene	ND	667	402	60	667	378	57	6	10-130	50
Hexachloroethane	ND	667	494	74	667	455	68	8	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	628	94	667	585	88	7	30-140	50
Isophorone	ND	667	546	82	667	498	75	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	510	77	667	467	70	9	30-130	50
n-Nitrosodiphenylamine	ND	667	445	67	667	416	62	7	30-140	50
Naphthalene	ND	667	518	78	667	481	72	7	30-130	50
Nitrobenzene	ND	667	541	81	667	505	76	7	40-130	50
Pentachlorophenol	ND	667	526	79	667	532	80	1	20-130	50
Phenanthrene	ND	667	580	87	667	559	84	4	30-130	50
Phenol	ND	667	508	76	667	464	70	9	30-130	50
Pyrene	ND	667	599	90	667	560	84	7	30-130	50
Benzyl Alcohol	ND	667	548	82	667	489	73	12	40-130	50
1-Methylnaphthalene	ND	667	545	82	667	499	75	9	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	524	79	9	30-130	50
3,5-Dimethylphenol	ND	667	599	90	667	536	80	11	20-150	50
Aniline	ND	667	370	55	667	334	50	10	20-150	50
Benzidine	ND	2670	1190	45	2670	1380	52	15	20-130	50
Benzoic Acid	ND	2670	770	29	2670	805	30	5	10-130	50
Carbazole	ND	667	581	87	667	578	87	1	40-130	50
N-Nitrosodimethylamine	ND	667	501	75	667	460	69	9	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	809	81	35-130
2-Fluorobiphenyl	333	241	72	333	226	68	45-130
2-Fluorophenol	1000	678	68	1000	633	63	25-130
Nitrobenzene-d5	333	234	70	333	215	65	40-130
Phenol-d5	1000	710	71	1000	648	65	25-120
Terphenyl-d14	333	312	94	333	299	90	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/22/12 19:46
Lab Samp ID: B160-02	Dilution Factor: 1
Lab File ID: RBJ147	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 10.5
Calib. Ref.: RBJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.95
ACENAPHTHYLENE	ND	1.9	0.95
ANTHRACENE	ND	1.9	0.95
BENZO(A)ANTHRACENE	ND	1.9	0.95
BENZO(A)PYRENE	ND	1.9	0.95
BENZO(B)FLUORANTHENE	ND	1.9	0.95
BENZO(K)FLUORANTHENE	ND	1.9	0.95
BENZO(G,H,I)PERYLENE	ND	1.9	0.95
CHRYSENE	ND	1.9	0.95
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.95
FLUORANTHENE	ND	1.9	0.95
FLUORENE	ND	1.9	0.95
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.95
NAPHTHALENE	ND	1.9	0.95
PHENANTHRENE	ND	1.9	0.95
PYRENE	ND	1.9	0.95
2-METHYLNAPHTHALENE	ND	1.9	0.95
1-METHYLNAPHTHALENE	ND	1.9	0.95
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.4
BUTYLBENZYLPHTHALATE	ND	19	9.4
DI-N-BUTYLPHTHALATE	ND	19	9.4
DI-N-OCTYLPHTHALATE	ND	19	9.4
DIETHYLPHTHALATE	ND	19	9.4
DIMETHYLPHTHALATE	ND	19	9.4
N-NITROSODIMETHYLAMINE	ND	1.9	0.95

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	244	372.4	65.5	40-130
2-FLUOROBIPHENYL	229	372.4	61.5	45-130
TERPHENYL-D14	327	372.4	87.8	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: SL-324-SA6-SB-25.0-26.0	Date Analyzed: 02/22/12 20:05
Lab Samp ID: B160-04	Dilution Factor: 1
Lab File ID: RBJ148	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 10.8
Calib. Ref.: RBJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.95
ACENAPHTHYLENE	ND	1.9	0.95
ANTHRACENE	ND	1.9	0.95
BENZO(A)ANTHRACENE	ND	1.9	0.95
BENZO(A)PYRENE	ND	1.9	0.95
BENZO(B)FLUORANTHENE	ND	1.9	0.95
BENZO(K)FLUORANTHENE	ND	1.9	0.95
BENZO(G,H,I)PERYLENE	ND	1.9	0.95
CHRYSENE	ND	1.9	0.95
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.95
FLUORANTHENE	ND	1.9	0.95
FLUORENE	ND	1.9	0.95
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.95
NAPHTHALENE	1.2J	1.9	0.95
PHENANTHRENE	ND	1.9	0.95
PYRENE	ND	1.9	0.95
2-METHYLNAPHTHALENE	ND	1.9	0.95
1-METHYLNAPHTHALENE	ND	1.9	0.95
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.4
BUTYLBENZYLPHTHALATE	ND	19	9.4
DI-N-BUTYLPHTHALATE	ND	19	9.4
DI-N-OCTYLPHTHALATE	ND	19	9.4
DIETHYLPHTHALATE	ND	19	9.4
DIMETHYLPHTHALATE	ND	19	9.4
N-NITROSODIMETHYLAMINE	ND	1.9	0.95

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	241	373.7	64.4	40-130
2-FLUOROBIPHENYL	231	373.7	62.0	45-130
TERPHENYL-D14	314	373.7	83.9	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B160	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RBJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	264	333.3	79.2	40-130
2-FLUOROBIPHENYL	244	333.3	73.1	45-130
TERPHENYL-D14	325	333.3	97.5	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 3550B/8270C SIM

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB028SB	SVB028SX	SVB028SY		
LAB FILE ID:	RBJ142	RBJ145	RBJ146		
DATE EXTRACTED:	02/22/1212:09	02/22/1212:09	02/22/1212:09	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1218:12	02/22/1219:08	02/22/1219:27	DATE RECEIVED:	02/22/12
PREP. BATCH:	SVB028S	SVB028S	SVB028S		
CALIB. REF:	RBJ290	RBJ290	RBJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	272	82	333	270	81	1	10-130	50
Acenaphthylene	ND	333	295	89	333	294	88	1	20-130	50
Anthracene	ND	333	266	80	333	270	81	2	20-130	50
Benzo(a)anthracene	ND	333	274	82	333	295	88	7	30-130	50
Benzo(a)pyrene	ND	333	287	86	333	304	91	6	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	311	93	0	40-130	50
Benzo(k)fluoranthene	ND	333	296	89	333	327	98	10	30-140	50
Benzo(g,h,i)perylene	ND	333	305	92	333	322	97	5	30-140	50
Chrysene	ND	333	265	80	333	286	86	8	30-140	50
Dibenzo(a,h)anthracene	ND	333	312	94	333	329	99	5	40-140	50
Fluoranthene	ND	333	286	86	333	300	90	5	30-130	50
Fluorene	ND	333	289	87	333	288	86	1	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	314	94	333	333	100	6	20-160	50
Naphthalene	ND	333	247	74	333	248	74	1	10-130	50
Phenanthrene	ND	333	267	80	333	273	82	2	20-130	50
Pyrene	ND	333	274	82	333	289	87	5	20-150	50
2-Methylnaphthalene	ND	333	270	81	333	269	81	0	30-150	50
1-Methylnaphthalene	ND	333	271	81	333	270	81	0	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	293	88	333	314	94	7	30-130	50
Butylbenzylphthalate	ND	333	278	83	333	298	89	7	30-150	50
Di-n-butylphthalate	ND	333	288	86	333	302	91	5	10-150	50
Di-n-octylphthalate	ND	333	291	87	333	305	91	5	20-150	50
Diethylphthalate	ND	333	309	93	333	310	93	0	30-150	50
Dimethylphthalate	ND	333	301	90	333	299	90	1	30-150	50
N-Nitrosodimethylamine	ND	333	234	70	333	236	71	1	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	271	81	333	262	79	40-130
2-Fluorobiphenyl	333	254	76	333	243	73	45-130
Terphenyl-d14	333	293	88	333	300	90	45-135

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 07:59
Sample ID: TB-021612	Date Analyzed: 02/22/12 07:59
Lab Samp ID: B160-05R	Dilution Factor: 1
Lab File ID: EB21032A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	31J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.3	40.00	83.2	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B160	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 01:44
Sample ID: SL-260-SA5A-SB-6.0	Date Analyzed: 02/22/12 01:44
Lab Samp ID: B160-01W	Dilution Factor: 0.93
Lab File ID: EB21023A	Matrix : SOIL
Ext Btch ID: GMB008S	% Moisture : 7.8
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.63	2.017	80.7	60-130

RL : Reporting Limit
Methanol Extraction: 02/17/12 14:19

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 02:26
Sample ID: SL-324-SA6-SB-25.5	Date Analyzed: 02/22/12 02:26
Lab Samp ID: B160-03W	Dilution Factor: 0.91
Lab File ID: EB21024A	Matrix : SOIL
Ext Btch ID: GMB008S	% Moisture : 11.2
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.51

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.62	2.050	79.1	60-130

RL : Reporting Limit
Methanol Extraction: 02/17/12 14:19

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B160	Date Extracted: 02/21/12 22:57
Sample ID: MBLK1S	Date Analyzed: 02/21/12 22:57
Lab Samp ID: GMB008SQ	Dilution Factor: 1
Lab File ID: EB21019A	Matrix : SOIL
Ext Btch ID: GMB008S	% Moisture : NA
Calib. Ref.: EB21011A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.67	2.000	83.3	60-130

RL : Reporting Limit
Methanol Extraction: 02/17/12 14:19

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB008SQ	GMB008SX	GMB008SY		
LAB FILE ID:	EB21019A	EB21020A	EB21021A		
DATE EXTRACTED:	02/21/1222:57	02/21/1223:39	02/22/1200:21	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1222:57	02/21/1223:39	02/22/1200:21	DATE RECEIVED:	02/21/12
PREP. BATCH:	GMB008S	GMB008S	GMB008S		
CALIB. REF:	EB21011A	EB21011A	EB21011A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	23.4	94	25.0	23.5	94	1	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	1.97	98	2.00	1.98	99	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/17/12 10:30
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/17/12 14:24
Lab Samp ID: B160-02	Dilution Factor: 1
Lab File ID: BB17016A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : 10.5
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	560	280
ISOPROPANOL	ND	560	280
METHANOL	ND	560	280

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/17/12 10:30
Sample ID: SL-324-SA6-SB-25.0-26.0	Date Analyzed: 02/17/12 14:41
Lab Samp ID: B160-04	Dilution Factor: 1
Lab File ID: BB17017A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : 10.8
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	560	280
ISOPROPANOL	ND	560	280
METHANOL	ND	560	280

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B160	Date Extracted: 02/17/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/17/12 11:50
Lab Samp ID: MEB003SB	Dilution Factor: 1
Lab File ID: BB17009A	Matrix : SOIL
Ext Btch ID: MEB003S	% Moisture : NA
Calib. Ref.: BB17003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 8015B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: MEB003SB MEB003SL MEB003SY
LAB FILE ID: BB17009A BB17010A BB17012A
DATE EXTRACTED: 02/17/1210:30 02/17/1210:30 02/17/1210:30 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1211:50 02/17/1212:11 02/17/1213:19 DATE RECEIVED: 02/17/12
PREP. BATCH: MEB003S MEB003S MEB003S
CALIB. REF: BB17003A BB17003A BB17003A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	7920	79	10000	9050	90	13	50-150	50
Isopropanol	ND	10000	9320	93	10000	9120	91	2	50-150	50
Methanol	ND	10000	7310	73	10000	6940	69	5	50-150	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B160	Date Extracted	: 02/17/12 10:30
Sample ID	: SL-260-SA5A-SB-5.5-6.5	Date Analyzed	: 02/21/12 13:51
Lab Samp ID	: B160-02	Dilution Factor	: 1
Lab File ID	: BB21010A	Matrix	: SOIL
Ext Btch ID	: PEB003S	% Moisture	: 10.5
Calib. Ref.	: BB21003A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	17	8.4
ETHYLENE GLYCOL	ND	11	5.6
PROPYLENE GLYCOL	ND	11	5.6

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B160	Date Extracted	: 02/17/12 10:30
Sample ID	: SL-324-SA6-SB-25.0-26.0	Date Analyzed	: 02/21/12 14:07
Lab Samp ID	: B160-04	Dilution Factor	: 1
Lab File ID	: BB21011A	Matrix	: SOIL
Ext Btch ID	: PEB003S	% Moisture	: 10.8
Calib. Ref.	: BB21003A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	17	8.4
ETHYLENE GLYCOL	ND	11	5.6
PROPYLENE GLYCOL	ND	11	5.6

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B160	Date Extracted: 02/17/12 10:30
Sample ID: MBLK1S	Date Analyzed: 02/21/12 11:14
Lab Samp ID: PEB003SB	Dilution Factor: 1
Lab File ID: BB21004A	Matrix : SOIL
Ext Btch ID: PEB003S	% Moisture : NA
Calib. Ref.: BB21003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 8015M

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB003SB	PEB003SL	PEB003SC		
LAB FILE ID:	BB21004A	BB21005A	BB21006A		
DATE EXTRACTED:	02/17/1210:30	02/17/1210:30	02/17/1210:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1211:14	02/21/1211:32	02/21/1211:45	DATE RECEIVED:	02/17/12
PREP. BATCH:	PEB003S	PEB003S	PEB003S		
CALIB. REF:	BB21003A	BB21003A	BB21003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	42.9	86	50.0	46.4	93	8	50-150	50
Ethylene Glycol	ND	50.0	46.5	93	50.0	50.1	100	8	50-150	50
Propylene Glycol	ND	25.0	18.6	74	25.0	19.5	78	5	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/23/12 12:31
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/23/12 17:18
Lab Samp ID: B160-02	Dilution Factor: 1
Lab File ID: LB23011A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 10.5
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.63J	1.1	0.56
EFH(C12-C14)	ND	1.1	0.56
EFH(C15-C20)	ND	1.1	0.56
EFH(C21-C30)	ND	1.1	0.56
EFH(C30-C40)	ND	1.1	0.56
TOTAL EFH(C8-C40)	0.63J	1.1	0.56

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	5.96	11.17	53.4	50-150
HEXACOSANE	2.45	2.793	87.7	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/23/12 12:31
Sample ID: SL-324-SA6-SB-25.0-26.0	Date Analyzed: 02/23/12 17:35
Lab Samp ID: B160-04	Dilution Factor: 1
Lab File ID: LB23012A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 10.8
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.63J	1.1	0.56
EFH(C12-C14)	ND	1.1	0.56
EFH(C15-C20)	ND	1.1	0.56
EFH(C21-C30)	ND	1.1	0.56
EFH(C30-C40)	ND	1.1	0.56
TOTAL EFH(C8-C40)	0.63J	1.1	0.56

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	6.74	11.21	60.1	50-150
HEXACOSANE	2.51	2.803	89.6	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B160	Date Extracted: 02/23/12 12:31
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:02
Lab Samp ID: DSB026SB	Dilution Factor: 1
Lab File ID: LB23010A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : NA
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.59	10.00	75.9	50-150
HEXACOSANE	2.31	2.500	92.4	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB026SB	DSB026SL	DSB026SC		
LAB FILE ID:	LB23010A	LB23008A	LB23009A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:02	02/23/1216:28	02/23/1216:45	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23002A	LB23002A	LB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	50.0	45.0	90	50.0	53.7	107	18	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	8.02	80	10.0	8.50	85	50-150
Hexacosane	2.50	2.29	91	2.50	2.35	94	50-150

METHOD 3550B/8082
PCBs

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B160	Date Extracted	: 02/23/12 15:29
Sample ID	: SL-260-SA5A-SB-5.5-6.5	Date Analyzed	: 02/24/12 20:29
Lab Samp ID	: B160-02	Dilution Factor	: 1
Lab File ID	: KB24020A	Matrix	: SOIL
Ext Btch ID	: CPB043S	% Moisture	: 10.5
Calib. Ref.	: KB24012A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.95|0.95
AROCLOR 1221	(ND)|ND	1.9	0.95|0.95
AROCLOR 1232	(ND)|ND	1.9	0.95|0.95
AROCLOR 1242	(ND)|ND	1.9	0.95|0.95
AROCLOR 1248	(ND)|ND	1.9	0.95|0.95
AROCLOR 1254	(ND)|ND	1.9	0.95|0.95
AROCLOR 1260	(ND)|ND	1.9	0.95|0.95
AROCLOR 1262	(ND)|ND	1.9	0.95|0.95
AROCLOR 1268	(ND)|ND	1.9	0.95|0.95
AROCLOR 5432	(ND)|ND	3.7	1.9|1.9
AROCLOR 5442	(ND)|ND	3.7	1.9|1.9
AROCLOR 5460	(ND)|ND	3.7	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(6.354)|4.595	5.959	(107)|77.1	45-120
TETRACHLORO-M-XYLENE	(6.883)|4.700	5.959	(116)|78.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
Batch No.	: 12B160	Date Extracted	: 02/23/12 15:29
Sample ID	: SL-324-SA6-SB-25.0-26.0	Date Analyzed	: 02/24/12 21:24
Lab Samp ID	: B160-04	Dilution Factor	: 1
Lab File ID	: KB24021A	Matrix	: SOIL
Ext Btch ID	: CPB043S	% Moisture	: 10.8
Calib. Ref.	: KB24012A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.95|0.95
AROCLOR 1221	(ND)|ND	1.9	0.95|0.95
AROCLOR 1232	(ND)|ND	1.9	0.95|0.95
AROCLOR 1242	(ND)|ND	1.9	0.95|0.95
AROCLOR 1248	(ND)|ND	1.9	0.95|0.95
AROCLOR 1254	(ND)|ND	1.9	0.95|0.95
AROCLOR 1260	(ND)|ND	1.9	0.95|0.95
AROCLOR 1262	(ND)|ND	1.9	0.95|0.95
AROCLOR 1268	(ND)|ND	1.9	0.95|0.95
AROCLOR 5432	(ND)|ND	3.7	1.9|1.9
AROCLOR 5442	(ND)|ND	3.7	1.9|1.9
AROCLOR 5460	(ND)|ND	3.7	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(6.003)|4.441	5.979	(100)|74.3	45-120
TETRACHLORO-M-XYLENE	(6.261)|4.373	5.979	(105)|73.1	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B160	Date Extracted: 02/23/12 15:29
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:43
Lab Samp ID: 60B043SQ	Dilution Factor: 1
Lab File ID: KB24017A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.918)|4.323	5.333	(111)|81.1	45-120
TETRACHLORO-M-XYLENE	(5.940)|4.476	5.333	(111)|83.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 3550B/8082

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B043SQ	60B043SX	60B043SY		
LAB FILE ID:	KB24017A	KB24018A	KB24019A		
DATE EXTRACTED:	02/23/1215:29	02/23/1215:29	02/23/1215:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1217:43	02/24/1218:39	02/24/1219:34	DATE RECEIVED:	02/23/12
PREP. BATCH:	CPB043S	CPB043S	CPB043S		
CALIB. REF:	KB24012A	KB24012A	KB24012A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(66.9)|57.5	(100)|86	66.7	(62.7)|52.4	(94)|79	(6)|9	50-130	50
Aroclor 1260	(ND)|ND	66.7	(73.9)|55.8	(111)|84	66.7	(73.5)|55.0	(110)|82	(1)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(63.3)|53.5	(95)|80	66.7	(62.3)|52.8	(93)|79	(2)|1	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.880)|4.307	(110)|80.8	5.333	(5.911)|4.336	(111)|81.3	45-120
Tetrachloro-m-xylene	5.333	(5.964)|4.933	(112)|92.5	5.333	(5.889)|4.833	(110)|90.6	10-160

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 18:07
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/24/12 00:57
Lab Samp ID: B160-02	Dilution Factor: .99
Lab File ID: PB23026A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	99	50
RDX	ND	99	50
1,3,5-TRINITROBENZENE	ND	99	50
1,3-DINITROBENZENE	ND	99	50
TETRYL	ND	99	50
NITROBENZENE	ND	99	50
2,4,6-TRINITROTOLUENE	ND	99	50
4-AMINO-2,6-DINITROTOLUENE	ND	99	50
2-AMINO-4,6-DINITROTOLUENE	ND	99	50
2,6-DINITROTOLUENE	ND	99	50
2,4-DINITROTOLUENE	ND	99	50
2-NITROTOLUENE	ND	99	50
3-NITROTOLUENE	ND	99	50
4-NITROTOLUENE	ND	99	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	99
2,6-DIAMINO-4-NITROTOLUENE	ND	200	99

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2040	1980	103	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B160	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:11
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB23015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2150	2000	107	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 8330A

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SL	EXB010SC		
LAB FILE ID:	PB23015A	PB23016A	PB23017A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:11	02/23/1217:53	02/23/1218:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2230	112	2000	2220	111	0	70-130	50
RDX	ND	2000	2120	106	2000	2120	106	0	70-130	50
1,3,5-Trinitrobenzene	ND	2000	2250	113	2000	2250	112	0	70-130	50
1,3-Dinitrobenzene	ND	2000	2040	102	2000	2060	103	1	70-130	50
Tetryl	ND	2000	1780	89	2000	1760	88	1	70-130	50
Nitrobenzene	ND	2000	2090	104	2000	2120	106	2	70-140	50
2,4,6-Trinitrotoluene	ND	2000	1870	93	2000	1960	98	5	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	2000	2130	106	2000	2160	108	1	70-130	50
2-Amino-4,6-Dinitrotoluene	ND	2000	2280	114	2000	2250	113	1	70-130	50
2,6-Dinitrotoluene	ND	2000	2330	117	2000	2280	114	2	70-130	50
2,4-Dinitrotoluene	ND	2000	2150	108	2000	2110	105	2	70-130	50
2-Nitrotoluene	ND	2000	2150	108	2000	2180	109	1	70-130	50
3-Nitrotoluene	ND	2000	2110	106	2000	2100	105	0	70-130	50
4-Nitrotoluene	ND	2000	2110	105	2000	2080	104	1	70-140	50
2,4-Diamino-6-nitrotoluene	ND	2000	2000	100	2000	1960	98	2	30-150	50
2,6-Diamino-4-nitrotoluene	ND	2000	2060	103	2000	2030	101	2	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2120	106	2000	2190	109	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/16/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/16/12
Batch No. : 12B160	Date Extracted: 02/22/12 18:07
Sample ID: SL-260-SA5A-SB-5.5-6.5	Date Analyzed: 02/24/12 12:21
Lab Samp ID: B160-02	Dilution Factor: .99
Lab File ID: PB24014A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24013A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	990	490
PETN	ND	990	490

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2340	1980	118	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client	: CDM	Date Collected	: NA
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
Batch No.	: 12B160	Date Extracted	: 02/22/12 18:07
Sample ID	: MBLK1S	Date Analyzed	: 02/24/12 09:48
Lab Samp ID	: EXB010SB	Dilution Factor	: 1
Lab File ID	: PB24003A	Matrix	: SOIL
Ext Btch ID	: EXB010S	% Moisture	: NA
Calib. Ref.	: PB24002A	Instrument ID	: T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2480	2000	124	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: Method 8332

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SX	EXB010SY		
LAB FILE ID:	PB24003A	PB24004A	PB24005A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1209:48	02/24/1210:02	02/24/1210:16	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB24002A	PB24002A	PB24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7500	7810	104	7500	7750	103	1	50-150	50
PETN	ND	7500	8030	107	7500	7820	104	3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2430	121	2000	2350	117	65-135

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B160	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-260-SA5A-SB-5.5-6.5	Date Analyzed	: 02/24/12 20:51
Lab Samp ID	: B160-02	Dilution Factor	: 0.990
Lab File ID	: 98B14073	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 10.5
Calib. Ref.	: 98B14063	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	17800	26.5	13.3
Antimony	0.288	0.221	0.111
Arsenic	8.56	0.442	0.221
Barium	95.5	0.442	0.221
Beryllium	0.904	0.111	0.0553
Boron	ND	5.53	2.77
Cadmium	0.158	0.111	0.0553
Calcium	3720	22.1	11.1
Chromium	23.4	0.442	0.221
Cobalt	5.29	0.111	0.0553
Copper	9.71	0.442	0.221
Iron	32600	22.1	11.1
Lead	8.37	0.221	0.111
Magnesium	6170	11.1	5.53
Manganese	241	0.553	0.277
Molybdenum	0.848	0.111	0.0553
Nickel	11.8	0.442	0.221
Potassium	2330	66.4	33.2
Selenium	ND	0.442	0.221
Silver	ND	0.111	0.0553
Sodium	238	111	55.3
Strontium	28.1	0.553	0.277
Thallium	0.348	0.111	0.0553
Tin	ND	11.1	5.53
Titanium	1080	1.11	0.553
Vanadium	45.9	0.111	0.0553
Zinc	60.3	3.32	1.66
Lithium	31.4	2.21	1.11
Phosphorus	295	13.3	6.64
Zirconium	ND	5.53	2.77

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/16/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/16/12
SDG NO.	: 12B160	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-324-SA6-SB-25.0-26.0	Date Analyzed	: 02/24/12 21:20
Lab Samp ID	: B160-04	Dilution Factor	: 0.943
Lab File ID	: 98B14077	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 10.8
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	9090	25.4	12.7
Antimony	0.122J	0.211	0.106
Arsenic	3.12	0.423	0.211
Barium	53.7	0.423	0.211
Beryllium	0.432	0.106	0.0529
Boron	ND	5.29	2.64
Cadmium	0.103J	0.106	0.0529
Calcium	1900	21.1	10.6
Chromium	11.6	0.423	0.211
Cobalt	3.63	0.106	0.0529
Copper	4.90	0.423	0.211
Iron	17500	21.1	10.6
Lead	3.36	0.211	0.106
Magnesium	4130	10.6	5.29
Manganese	200	0.529	0.264
Molybdenum	0.299	0.106	0.0529
Nickel	6.53	0.423	0.211
Potassium	1920	63.4	31.7
Selenium	ND	0.423	0.211
Silver	ND	0.106	0.0529
Sodium	345	106	52.9
Strontium	9.42	0.529	0.264
Thallium	0.235	0.106	0.0529
Tin	ND	10.6	5.29
Titanium	813	1.06	0.529
Vanadium	24.4	0.106	0.0529
Zinc	48.0	3.17	1.59
Lithium	21.1	2.11	1.06
Phosphorus	349	12.7	6.34
Zirconium	ND	5.29	2.64

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B160	Date Extracted: 02/24/12 15:03
Sample ID: MBLK1S	Date Analyzed: 02/24/12 19:55
Lab Samp ID: IMB023SB	Dilution Factor: 1
Lab File ID: 98B14065	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : NA
Calib. Ref.: 98B14063	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B160
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB023SB	IMB023SL	IMB023SC		
LAB FILE ID:	98B14065	98B14066	98B14067		
DATIME EXTRCTD:	02/24/1215:03	02/24/1215:03	02/24/1215:03	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1219:55	02/24/1220:02	02/24/1220:09	DATE RECEIVED:	02/24/12
PREP. BATCH:	NA	NA	NA		
CALIB. REF:	98B14063	98B14063	98B14063		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2550	102	2500	2630	105	3	80-120	20
Antimony	ND	25.0	24.9	100	25.0	24.9	99	0	80-120	20
Arsenic	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Barium	ND	25.0	24.6	98	25.0	24.6	98	0	80-120	20
Beryllium	ND	25.0	25.0	100	25.0	24.9	99	0	80-120	20
Boron	ND	25.0	25.3	101	25.0	25.1	100	1	80-120	20
Cadmium	ND	25.0	24.6	99	25.0	24.6	98	0	80-120	20
Calcium	ND	2500	2540	102	2500	2550	102	0	80-120	20
Chromium	ND	25.0	24.5	98	25.0	25.0	100	2	80-120	20
Cobalt	ND	25.0	24.6	98	25.0	24.9	100	1	80-120	20
Copper	ND	25.0	24.2	97	25.0	24.7	99	2	80-120	20
Iron	ND	2500	2590	104	2500	2630	105	1	80-120	20
Lead	ND	25.0	24.6	98	25.0	24.8	99	1	80-120	20
Magnesium	ND	2500	2530	101	2500	2580	103	2	80-120	20
Manganese	ND	25.0	24.8	99	25.0	25.1	100	1	80-120	20
Molybdenum	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	25.2	101	5	80-120	20
Potassium	ND	2500	2610	104	2500	2640	106	1	80-120	20
Selenium	ND	25.0	25.0	100	25.0	25.3	101	1	80-120	20
Silver	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Sodium	ND	2500	2470	99	2500	2460	98	1	80-120	20
Strontium	ND	25.0	25.6	102	25.0	25.4	102	1	80-120	20
Thallium	ND	25.0	24.9	100	25.0	25.2	101	1	80-120	20
Tin	ND	25.0	27.0	108	25.0	27.0	108	0	80-120	20
Titanium	ND	25.0	24.8	99	25.0	25.2	101	2	80-120	20
Vanadium	ND	25.0	24.6	98	25.0	25.0	100	2	80-120	20
Zinc	ND	50.0	47.4	95	50.0	47.8	96	1	80-120	20
Lithium	ND	25.0	25.3	101	25.0	25.3	101	0	80-120	20
Phosphorus	ND	250	244	97	250	249	100	2	80-120	20
Zirconium	ND	25.0	26.7	107	25.0	26.5	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B160
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.976 0.976
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03W B201-03A
LAB FILE ID: 98B17031 98B17030
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/29/1213:22 02/29/1213:18 DATE RECEIVED: 02/22/12
PREP. BATCH: NA NA
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	8530	2600	11000	96	75-125
Antimony	0.195J	26.0	25.2	96	75-125
Arsenic	3.17	26.0	26.9	91	75-125
Barium	76.7	26.0	101	93	75-125
Beryllium	0.358	26.0	24.8	94	75-125
Boron	30.0	26.0	53.7	91	75-125
Cadmium	0.165	26.0	24.9	95	75-125
Calcium	9560	2600	11900	90	75-125
Chromium	21.4	26.0	44.1	87	75-125
Cobalt	4.34	26.0	27.6	89	75-125
Copper	7.00	26.0	28.7	83	75-125
Iron	20000	2600	22200	85	75-125
Lead	52.5	26.0	75.7	89	75-125
Magnesium	3300	2600	5690	92	75-125
Manganese	302	26.0	324	84	75-125
Molybdenum	2.55	26.0	27.6	96	75-125
Nickel	8.49	26.0	30.5	85	75-125
Potassium	2680	2600	5200	97	75-125
Selenium	ND	26.0	24.6	94	75-125
Silver	ND	26.0	24.0	92	75-125
Sodium	374	2600	2760	92	75-125
Strontium	34.7	26.0	59.2	94	75-125
Thallium	0.230	26.0	24.9	95	75-125
Tin	ND	26.0	28.3	109	75-125
Titanium	831	26.0	857	100	75-125
Vanadium	28.7	26.0	52.0	89	75-125
Zinc	56.0	52.1	103	89	75-125
Lithium	18.3	26.0	43.0	95	75-125
Phosphorus	401	260	640	92	75-125
Zirconium	ND	26.0	28.3	109	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3

DILUTION FACTOR:	0.976	4.88
SAMPLE ID:	SL-187-SA7-SB-	SL-187-SA7-SB-
EMAX SAMP ID:	B201-03W	B201-03J
LAB FILE ID:	98B17031	98B17035
DATE EXTRACTED:	02/24/1215:03	02/24/1215:03
DATE ANALYZED:	02/29/1213:22	02/29/1213:40
PREP. BATCH:	IMB023S	IMB023S
CALIB. REF:	98B17026	98B17026

DATE COLLECTED: 02/22/12
DATE RECEIVED: 02/22/12

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	8530	8920	5	10
Antimony	0.195J	ND	NA	10
Arsenic	3.17	3.31	4	10
Barium	76.7	72.1	6	10
Beryllium	0.358	0.364J	NA	10
Boron	30.0	29.3	2	10
Cadmium	0.165	ND	NA	10
Calcium	9560	9930	4	10
Chromium	21.4	21.9	2	10
Cobalt	4.34	4.54	5	10
Copper	7.00	7.43	6	10
Iron	20000	21100	5	10
Lead	52.5	52.6	0	10
Magnesium	3300	3450	5	10
Manganese	302	322	7	10
Molybdenum	2.55	2.44	4	10
Nickel	8.49	8.78	3	10
Potassium	2680	2680	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	374	323J	NA	10
Strontium	34.7	34.1	2	10
Thallium	0.230	ND	NA	10
Tin	ND	ND	0	10
Titanium	831	842	1	10
Vanadium	28.7	29.2	2	10
Zinc	56.0	58.0	3	10
Lithium	18.3	16.6	9	10
Phosphorus	401	385	4	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB017SB	ND	1	NA	0.100	0.0500	02/21/1217:00	02/21/1213:00	M47B014012	M47B014010	HGB017S	NA	02/21/12
LCS1S	HGB017SL	0.877	1	NA	0.100	0.0500	02/21/1217:02	02/21/1213:00	M47B014013	M47B014010	HGB017S	NA	02/21/12
LCD1S	HGB017SC	0.877	1	NA	0.100	0.0500	02/21/1217:04	02/21/1213:00	M47B014014	M47B014010	HGB017S	NA	02/21/12
SL-260-SA5A-SB-5.5-6.5	B160-02	ND	1.00	10.5	0.112	0.0559	02/21/1217:34	02/21/1213:00	M47B014028	M47B014022	HGB017S	02/16/12	02/16/12
SL-324-SA6-SB-25.0-26.0	B160-04	ND	1.01	10.8	0.113	0.0566	02/21/1217:36	02/21/1213:00	M47B014029	M47B014022	HGB017S	02/16/12	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B160
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB017SB	HGB017SL	HGB017SC		
LAB FILE ID:	M47B014012	M47B014013	M47B014014		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	NA
DATIME ANALYZD:	02/21/1217:00	02/21/1217:02	02/21/1217:04	DATE RECEIVED:	02/21/12
PREP. BATCH:	HGB017S	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010	M47B014010		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.877	105	.833	.877	105	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B160
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	5.4
DILTN FACTR:	1.00	1.00		
SAMPLE ID:	129178-25-0152			
CONTROL NO.:	B171-01	B171-01A		
LAB FILE ID:	M47B014016	M47B014015		
DATIME EXTRCTD:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATIME ANALYZD:	02/21/1217:08	02/21/1217:06	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.881	.893	101	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 5.4

DILUTION FACTOR:	1.00	5.02		
SAMPLE ID:	129178-25-0152	129178-25-0152DL		
EMAX SAMP ID:	B171-01	B171-01J		
LAB FILE ID:	M47B014016	M47B014017		
DATE EXTRACTED:	02/21/1213:00	02/21/1213:00	DATE COLLECTED:	02/16/12
DATE ANALYZED:	02/21/1217:08	02/21/1217:10	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB017S	HGB017S		
CALIB. REF:	M47B014010	M47B014010		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB003SB	ND	1	NA	1.00	0.500	02/17/1219:34	02/17/1214:16	AB23-33	AB23-31	ICB003S	NA	02/17/12
LCS1S	ICB003SL	5.97	1	NA	1.00	0.500	02/17/1219:51	02/17/1214:16	AB23-34	AB23-31	ICB003S	NA	02/17/12
LCD1S	ICB003SC	5.95	1	NA	1.00	0.500	02/17/1220:07	02/17/1214:16	AB23-35	AB23-31	ICB003S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	4.39	1	10.5	1.12	0.559	02/17/1220:23	02/17/1214:16	AB23-36	AB23-31	ICB003S	02/16/1209:20	02/16/12
SL-324-SA6-SB-25.0-26.0	B160-04	1.35	1	10.8	1.12	0.561	02/17/1220:39	02/17/1214:16	AB23-37	AB23-31	ICB003S	02/16/1214:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB003SB	ICB003SL	ICB003SC		
LAB FILE ID:	AB23-33	AB23-34	AB23-35		
DATE EXTRACTED:	02/17/1214:16	02/17/1214:16	02/17/1214:16	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:34	02/17/1219:51	02/17/1220:07	DATE RECEIVED:	02/17/12
PREP. BATCH:	ICB003S	ICB003S	ICB003S		
CALIB. REF:	AB23-31	AB23-31	AB23-31		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.97	99	6.00	5.95	99	0	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB003SB	ND	1	NA	1.50	0.750	02/17/1219:34	02/17/1214:16	AB23-33	AB23-31	ICB003S	NA	02/17/12
LCS1S	ICB003SL	19.5	1	NA	1.50	0.750	02/17/1219:51	02/17/1214:16	AB23-34	AB23-31	ICB003S	NA	02/17/12
LCD1S	ICB003SC	19.5	1	NA	1.50	0.750	02/17/1220:07	02/17/1214:16	AB23-35	AB23-31	ICB003S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	ND	1	10.5	1.68	0.838	02/17/1220:23	02/17/1214:16	AB23-36	AB23-31	ICB003S	02/16/1209:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB003SB	ICB003SL	ICB003SC		
LAB FILE ID:	AB23-33	AB23-34	AB23-35		
DATE EXTRACTED:	02/17/1214:16	02/17/1214:16	02/17/1214:16	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:34	02/17/1219:51	02/17/1220:07	DATE RECEIVED:	02/17/12
PREP. BATCH:	ICB003S	ICB003S	ICB003S		
CALIB. REF:	AB23-31	AB23-31	AB23-31		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.5	99	19.7	19.5	99	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160

Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB003SB	ND	1	NA	1.50	0.750	02/17/1219:34	02/17/1214:16	AB23-33	AB23-31	ICB003S	NA	02/17/12
LCS1S	ICB003SL	26.2	1	NA	1.50	0.750	02/17/1219:51	02/17/1214:16	AB23-34	AB23-31	ICB003S	NA	02/17/12
LCD1S	ICB003SC	26.2	1	NA	1.50	0.750	02/17/1220:07	02/17/1214:16	AB23-35	AB23-31	ICB003S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	0.902J	1	NA	1.50	0.750	02/17/1220:23	02/17/1214:16	AB23-36	AB23-31	ICB003S	02/16/1209:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB003SB	ICB003SL	ICB003SC		
LAB FILE ID:	AB23-33	AB23-34	AB23-35		
DATE EXTRACTED:	02/17/1214:16	02/17/1214:16	02/17/1214:16	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1219:34	02/17/1219:51	02/17/1220:07	DATE RECEIVED:	02/17/12
PREP. BATCH:	ICB003S	ICB003S	ICB003S		
CALIB. REF:	AB23-31	AB23-31	AB23-31		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.2	99	26.6	26.2	98	0	90-110	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB002SB	ND	1	NA	20.0	10.0	02/17/1214:55	02/17/1209:45	JB17009	JB17008	PCB002S	NA	02/17/12
LCS1S	PCB002SL	240	1	NA	20.0	10.0	02/17/1215:37	02/17/1209:45	JB17011	JB17008	PCB002S	NA	02/17/12
LCD1S	PCB002SC	236	1	NA	20.0	10.0	02/17/1215:59	02/17/1209:45	JB17012	JB17008	PCB002S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	ND	1	10.5	22.3	11.2	02/17/1219:37	02/17/1209:45	JB17021	JB17018	PCB002S	02/16/1209:20	02/16/12
SL-324-SA6-SB-25.0-26.0	B160-04	ND	1	10.8	22.4	11.2	02/17/1219:58	02/17/1209:45	JB17022	JB17018	PCB002S	02/16/1214:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB002SB	PCB002SL	PCB002SC		
LAB FILE ID:	JB17009	JB17011	JB17012		
DATE EXTRACTED:	02/17/1209:45	02/17/1209:45	02/17/1209:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1214:55	02/17/1215:37	02/17/1215:59	DATE RECEIVED:	02/17/12
PREP. BATCH:	PCB002S	PCB002S	PCB002S		
CALIB. REF:	JB17008	JB17008	JB17008		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	240	96	250	236	94	2	85-115	15

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160

Matrix : SOIL
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CNB008SB	ND	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00810	CNB00808	CNB008S	NA	02/17/12
LCS1S	CNB008SL	2.45	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00811	CNB00808	CNB008S	NA	02/17/12
LCD1S	CNB008SC	2.49	1	NA	0.500	0.250	02/17/1216:17	02/17/1209:30	CNB00812	CNB00808	CNB008S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	ND	1	10.5	0.559	0.279	02/17/1216:19	02/17/1209:30	CNB00822	CNB00818	CNB008S	02/16/1209:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B160
SAMPLE ID: LCS1S/LCD1D
CONTROL NO.: CNB008SL/C

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 09:30
DATE ANALYZED: 02/17/12 16:17/16:17

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	2.50	2.45	98	2.50	2.49	100	2	85-125	20

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB002SB	ND	1	NA	1.00	0.500	02/17/1218:27	02/17/1214:19	IB17010	IB17008	HCB002S	NA	02/17/12
MBLK2S	HCB002SQ	ND	1	NA	1.00	0.500	02/17/1218:37	02/17/1214:19	IB17011	IB17008	HCB002S	NA	02/17/12
LCS1S	CSB002SL	8.61	1	NA	1.00	0.500	02/17/1219:09	02/17/1214:19	IB17012	IB17008	CSB002S	NA	02/17/12
LCS2S	CSB002SX	8.96	1	NA	1.00	0.500	02/17/1219:19	02/17/1214:19	IB17013	IB17008	CSB002S	NA	02/17/12
LCS3S	CIB002SL	125	10	NA	10.0	5.00	02/17/1219:29	02/17/1214:19	IB17014	IB17008	CIB002S	NA	02/17/12
LCS4S	CIB002SX	125	10	NA	10.0	5.00	02/17/1219:40	02/17/1214:19	IB17015	IB17008	CIB002S	NA	02/17/12
SL-260-SA5A-SB-5.5-6.5	B160-02	ND	1	10.5	1.12	0.559	02/17/1223:18	02/17/1214:19	IB17036	IB17032	CIB002S	02/16/1209:20	02/16/12
SL-260-SA5A-SB-5.5-6.5RE	B160-02R	ND	1	10.5	1.12	0.559	02/17/1223:29	02/17/1214:19	IB17037	IB17032	CIB002S	02/16/1209:20	02/16/12
SL-324-SA6-SB-25.0-26.0	B160-04	ND	1	10.8	1.12	0.561	02/17/1223:39	02/17/1214:19	IB17038	IB17032	CIB002S	02/16/1214:20	02/16/12
SL-324-SA6-SB-25.0-26.0RE	B160-04R	ND	1	10.8	1.12	0.561	02/17/1223:50	02/17/1214:19	IB17039	IB17032	CIB002S	02/16/1214:20	02/16/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	10		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CIB002SL		
LAB FILE ID:	IB17010	IB17014		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:29	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CIB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 10
SAMPLE ID: MBLK2S
LAB SAMP ID: HCB002SQ CIB002SX
LAB FILE ID: IB17011 IB17015
DATE EXTRACTED: 02/17/1214:19 02/17/1214:19 DATE COLLECTED: NA
DATE ANALYZED: 02/17/1218:37 02/17/1219:40 DATE RECEIVED: 02/17/12
PREP. BATCH: HCB002S CIB002S
CALIB. REF: IB17008 IB17008

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	130	125	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB002SB	CSB002SL		
LAB FILE ID:	IB17010	IB17012		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:27	02/17/1219:09	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CSB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.61	86	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B160
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK2S			
LAB SAMP ID:	HCB002SQ	CSB002SX		
LAB FILE ID:	IB17011	IB17013		
DATE EXTRACTED:	02/17/1214:19	02/17/1214:19	DATE COLLECTED:	NA
DATE ANALYZED:	02/17/1218:37	02/17/1219:19	DATE RECEIVED:	02/17/12
PREP. BATCH:	HCB002S	CSB002S		
CALIB. REF:	IB17008	IB17008		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.96	90	80-120

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B160
Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-260-SA5A-SB-5.5-6.5	B160-02	8.54	1	10.5	NA	NA	02/17/1214:00	02/17/1214:00	PHB02501	PHB025S	PHB025S	02/16/1209:20	02/16/12
SL-260-SA5A-SB-5.5-6.5DUP	B160-02D	8.54	1	10.5	NA	NA	02/17/1214:01	02/17/1214:00	PHB02502	PHB025S	PHB025S	02/16/1209:20	02/16/12
SL-324-SA6-SB-25.0-26.0	B160-04	7.97	1	10.8	NA	NA	02/17/1214:03	02/17/1214:00	PHB02503	PHB025S	PHB025S	02/16/1214:20	02/16/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B160 DATE RECEIVED: 02/16/12
SAMPLE ID: SL-260-SA5A-SB-5.5-6.5DUP DATE EXTRACTED: 02/17/12 14:00
CONTROL NO.: B160-02D DATE ANALYZED: 02/17/12 14:01

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	8.54	8.54	0	0.1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/21/12 18:24
Sample ID: TB-021712	Date Analyzed: 02/21/12 18:24
Lab Samp ID: B174-07	Dilution Factor: 1
Lab File ID: RBV252	Matrix : WATER
Ext Btch ID: VO01B13	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.0	10.00	100	80-120
4-BROMOFLUOROBENZENE	11.3	10.00	113	86-115
TOLUENE-D8	10.5	10.00	105	88-110
DIBROMOFLUOROMETHANE	10.4	10.00	104	86-118

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B174	Date Extracted: 02/21/12 17:37
Sample ID: MBLK1W	Date Analyzed: 02/21/12 17:37
Lab Samp ID: VO01B13B	Dilution Factor: 1
Lab File ID: RBV251	Matrix : WATER
Ext Btch ID: VO01B13	% Moisture : NA
Calib. Ref.: RJV602	Instrument ID : T-O01

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	2.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.0	0.50
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,2-DIBROMOETHANE (EDB)	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	1.0	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-CHLOROTOLUENE	ND	1.0	0.20
4-CHLOROTOLUENE	ND	1.0	0.20
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENE	ND	2.0	0.40
METHYL TERT-BUTYL ETHER (MTBE)	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	4.0
2-HEXANONE	ND	10	4.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	4.0
FREON113	ND	1.0	0.30
2-CHLOROETHYL VINYL ETHER	ND	2.0	1.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	1.0	0.20
CHLOROTRIFLUOROETHYLENE	ND	1.0	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.0	10.00	100	80-120
4-BROMOFLUOROBENZENE	10.8	10.00	108	86-115
TOLUENE-D8	10.3	10.00	103	88-110
DIBROMOFLUOROMETHANE	10.4	10.00	104	86-118

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO01B13B	VO01B13L	VO01B13C		
LAB FILE ID:	RBV251	RBV248	RBV249		
DATE EXTRACTED:	02/21/1217:37	02/21/1216:14	02/21/1216:42	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1217:37	02/21/1216:14	02/21/1216:42	DATE RECEIVED:	02/21/12
PREP. BATCH:	VO01B13	VO01B13	VO01B13		
CALIB. REF:	RJV602	RJV602	RJV602		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	10.0	9.97	100	10.0	10.3	103	3	70-130	30
1,1,1-Trichloroethane	ND	10.0	9.78	98	10.0	10.0	100	3	70-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.5	105	10.0	11.3	113	8	70-130	30
1,1,2-Trichloroethane	ND	10.0	10.1	101	10.0	10.7	107	6	70-130	30
1,1-Dichloroethane	ND	10.0	9.83	98	10.0	10.3	103	4	70-130	30
1,1-Dichloroethene	ND	10.0	8.51	85	10.0	8.80	88	3	60-130	30
1,1-Dichloropropene	ND	10.0	10.0	100	10.0	10.5	105	5	70-140	30
1,2,3-Trichlorobenzene	ND	10.0	8.50	85	10.0	8.58	86	1	60-130	30
1,2,3-Trichloropropane	ND	10.0	10.4	104	10.0	11.1	111	7	70-140	30
1,2,4-Trichlorobenzene	ND	10.0	8.25	82	10.0	8.26	83	0	60-140	30
1,2,4-Trimethylbenzene	ND	10.0	9.89	99	10.0	10.0	100	1	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.99	90	10.0	9.75	98	8	60-130	30
1,2-Dichlorobenzene	ND	10.0	10.1	101	10.0	10.6	106	5	70-130	30
1,2-Dichloroethane	ND	10.0	9.84	98	10.0	10.3	103	5	70-130	30
1,2-Dichloropropane	ND	10.0	10.0	100	10.0	10.3	103	3	70-130	30
1,2-Dibromoethane (EDB)	ND	10.0	9.56	96	10.0	9.97	100	4	70-140	30
1,3,5-Trimethylbenzene	ND	10.0	9.47	95	10.0	9.85	98	4	70-130	30
1,3-Dichlorobenzene	ND	10.0	10.2	102	10.0	10.4	104	3	70-130	30
1,3-Dichloropropane	ND	10.0	10.0	100	10.0	10.6	106	6	70-130	30
1,4-Dichlorobenzene	ND	10.0	9.99	100	10.0	10.5	105	5	70-130	30
2,2-Dichloropropane	ND	10.0	9.68	97	10.0	9.94	99	3	50-140	30
2-Chlorotoluene	ND	10.0	9.73	97	10.0	10.3	103	5	70-130	30
4-Chlorotoluene	ND	10.0	9.88	99	10.0	10.3	103	4	70-130	30
Benzene	ND	10.0	9.53	95	10.0	10.0	100	5	70-130	30
Bromobenzene	ND	10.0	9.52	95	10.0	10.1	101	6	70-130	30
Bromochloromethane	ND	10.0	9.48	95	10.0	10.1	101	6	70-130	30
Bromodichloromethane	ND	10.0	9.63	96	10.0	9.88	99	3	70-130	30
Bromoform	ND	10.0	10.4	104	10.0	11.3	113	9	60-140	30
Bromomethane	ND	10.0	8.52	85	10.0	8.92	89	5	50-140	30
Carbon Tetrachloride	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
Chlorobenzene	ND	10.0	10.1	101	10.0	10.6	106	5	70-120	30
Chloroethane	ND	10.0	8.57	86	10.0	8.83	88	3	70-140	30
Chloroform	ND	10.0	9.82	98	10.0	10.2	102	4	70-130	30
Chloromethane	ND	10.0	8.97	90	10.0	9.26	93	3	60-130	30
cis-1,2-Dichloroethene	ND	10.0	9.02	90	10.0	9.59	96	6	70-130	30
cis-1,3-Dichloropropene	ND	10.0	10.2	102	10.0	10.5	105	2	70-130	30
Dibromochloromethane	ND	10.0	10.2	102	10.0	10.5	105	3	70-130	30
Dibromomethane	ND	10.0	10.0	100	10.0	10.3	103	3	70-140	30
Dichlorodifluoromethane	ND	10.0	8.34	83	10.0	9.07	91	8	50-140	30
Ethylbenzene	ND	10.0	9.62	96	10.0	10.0	100	4	70-130	30
Hexachlorobutadiene	ND	10.0	8.44	84	10.0	8.40	84	0	60-140	30
Isopropyl Benzene	ND	10.0	10.8	108	10.0	11.3	113	5	70-150	30
m,p-Xylene	ND	20.0	19.3	96	20.0	19.8	99	3	70-130	30
Methyl tert-butyl Ether (MTBE)	ND	10.0	9.92	99	10.0	10.6	106	6	70-140	30
Methylene Chloride	ND	10.0	9.61	96	10.0	10.1	101	5	70-130	30
n-Butylbenzene	ND	10.0	9.49	95	10.0	9.80	98	3	60-130	30
n-Propylbenzene	ND	10.0	10.1	101	10.0	10.5	105	4	70-140	30
o-Xylene	ND	10.0	9.68	97	10.0	9.96	100	3	70-130	30

p-Isopropyltoluene	ND	10.0	10.2	102	10.0	10.4	104	3	70-140	30
Sec-Butylbenzene	ND	10.0	10.3	103	10.0	10.8	108	5	70-130	30
Styrene	ND	10.0	10.2	102	10.0	10.4	104	2	70-130	30
Tert-Butylbenzene	ND	10.0	10.4	104	10.0	10.8	108	4	70-130	30
Tetrachloroethene	ND	10.0	9.82	98	10.0	10.3	103	5	70-130	30
Toluene	ND	10.0	9.63	96	10.0	10.3	103	7	70-130	30
Trans-1,2-Dichloroethene	ND	10.0	8.95	90	10.0	9.32	93	4	70-130	30
Trans-1,3-Dichloropropene	ND	10.0	10.3	103	10.0	10.6	106	3	70-140	30
Trichloroethene	ND	10.0	10.3	103	10.0	10.4	104	1	70-130	30
Trichlorofluoromethane	ND	10.0	8.84	88	10.0	9.25	93	5	70-140	30
Vinyl Chloride	ND	10.0	8.12	81	10.0	8.46	85	4	60-150	30
Acetone	ND	50.0	47.5	95	50.0	49.5	99	4	50-150	30
2-Butanone (MEK)	ND	50.0	52.5	105	50.0	56.1	112	7	60-140	30
2-Hexanone	ND	50.0	53.4	107	50.0	56.3	113	5	70-140	30
4-Methyl-2-Pentanone (MIBK)	ND	50.0	54.8	110	50.0	57.9	116	6	60-140	30
Freon113	ND	10.0	9.33	93	10.0	9.74	97	4	70-140	30
2-Chloroethyl Vinyl Ether	ND	10.0	11.0	110	10.0	11.6	116	5	30-160	30
2-Chloro-1,1,1-trifluoroethane	ND	10.0	10.6	106	10.0	11.7	117	10	50-150	30
Chlorotrifluoroethylene	ND	10.0	8.05	80	10.0	9.44	94	16	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.39	94	10.0	9.41	94	80-120
4-Bromofluorobenzene	10.0	10.1	101	10.0	10.2	102	86-115
Toluene-d8	10.0	9.92	99	10.0	9.84	98	88-110
Dibromofluoromethane	10.0	9.95	99	10.0	10.1	101	86-118

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 01:41
Sample ID: SL-325-SA6-SB-22.0	Date Analyzed: 02/22/12 01:41
Lab Samp ID: B174-01	Dilution Factor: 0.91
Lab File ID: RBB327	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 27.0
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	6.2	1.2
1,1,1-TRICHLOROETHANE	ND	6.2	1.2
1,1,2,2-TETRACHLOROETHANE	ND	6.2	1.2
1,1,2-TRICHLOROETHANE	ND	6.2	1.2
1,1-DICHLOROETHANE	ND	6.2	1.2
1,1-DICHLOROETHENE	ND	6.2	1.2
1,1-DICHLOROPROPENE	ND	6.2	1.2
1,2,3-TRICHLOROBENZENE	ND	6.2	2.5
1,2,3-TRICHLOROPROPANE	ND	6.2	2.5
1,2,4-TRICHLOROBENZENE	ND	6.2	2.5
1,2,4-TRIMETHYLBENZENE	3.0J	6.2	1.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	6.2	2.5
1,2-DICHLOROBENZENE	ND	6.2	1.2
1,2-DICHLOROETHANE	ND	6.2	1.2
1,2-DICHLOROPROPANE	ND	6.2	1.2
1,2-DIBROMOETHANE (EDB)	ND	6.2	1.2
1,3,5-TRIMETHYLBENZENE	ND	6.2	1.2
1,3-DICHLOROBENZENE	ND	6.2	1.2
1,3-DICHLOROPROPANE	ND	6.2	1.2
1,4-DICHLOROBENZENE	ND	6.2	1.2
2,2-DICHLOROPROPANE	ND	6.2	2.5
2-CHLOROTOLUENE	ND	6.2	1.2
4-CHLOROTOLUENE	ND	6.2	1.2
BENZENE	ND	6.2	1.2
BROMOBENZENE	ND	6.2	1.2
BROMOCHLOROMETHANE	ND	6.2	1.2
BROMODICHLOROMETHANE	ND	6.2	1.2
BROMOFORM	ND	6.2	2.5
BROMOMETHANE	ND	6.2	2.5
CARBON TETRACHLORIDE	ND	6.2	1.2
CHLOROBENZENE	ND	6.2	1.2
CHLOROETHANE	ND	6.2	2.5
CHLOROFORM	ND	6.2	1.2
CHLOROMETHANE	ND	6.2	2.5
CIS-1,2-DICHLOROETHENE	ND	6.2	1.2
CIS-1,3-DICHLOROPROPENE	ND	6.2	1.2
DIBROMOCHLOROMETHANE	ND	6.2	1.2
DIBROMOMETHANE	ND	6.2	1.2
DICHLORODIFLUOROMETHANE	ND	6.2	2.5
ETHYLBENZENE	3.7J	6.2	1.2
HEXACHLOROBUTADIENE	ND	6.2	2.5
ISOPROPYL BENZENE	ND	6.2	1.2
M,P-XYLENE	3.2J	6.2	2.5
METHYL TERT-BUTYL ETHER (MTBE)	ND	6.2	1.2
METHYLENE CHLORIDE	ND	6.2	2.5
N-BUTYLBENZENE	ND	6.2	1.2
N-PROPYLBENZENE	ND	6.2	1.2
O-XYLENE	1.5J	6.2	1.2
P-ISOPROPYLTOLUENE	ND	6.2	1.2
SEC-BUTYLBENZENE	ND	6.2	1.2
STYRENE	ND	6.2	1.2
TERT-BUTYLBENZENE	ND	6.2	1.2
TETRACHLOROETHENE	5.8J	6.2	1.2
TOLUENE	2.9J	6.2	1.2
TRANS-1,2-DICHLOROETHENE	ND	6.2	1.2
TRANS-1,3-DICHLOROPROPENE	ND	6.2	1.2
TRICHLOROETHENE	ND	6.2	1.2
TRICHLOROFLUOROMETHANE	ND	6.2	2.5
VINYL CHLORIDE	ND	6.2	2.5
ACETONE	ND	12	6.2
2-BUTANONE (MEK)	ND	12	6.2
2-HEXANONE	ND	12	6.2
4-METHYL-2-PENTANONE (MIBK)	ND	12	6.2
FREON113	ND	6.2	2.5
2-CHLOROETHYL VINYL ETHER	ND	6.2	2.5
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	6.2	2.5
CHLOROTRIFLUOROETHYLENE	ND	6.2	2.5

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	69.2	62.33	111	80-120
4-BROMOFLUOROBENZENE	51.7	62.33	83.0	74-121
TOLUENE-D8	62.1	62.33	99.7	81-117
DIBROMOFLUOROMETHANE	57.8	62.33	92.8	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 02:16
Sample ID: SL-325-SA6-SB-26.5	Date Analyzed: 02/22/12 02:16
Lab Samp ID: B174-03	Dilution Factor: 0.94
Lab File ID: RBB328	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : 7.9
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.1	1.0
1,1,1-TRICHLOROETHANE	ND	5.1	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.1	1.0
1,1,2-TRICHLOROETHANE	ND	5.1	1.0
1,1-DICHLOROETHANE	ND	5.1	1.0
1,1-DICHLOROETHENE	ND	5.1	1.0
1,1-DICHLOROPROPENE	ND	5.1	1.0
1,2,3-TRICHLOROBENZENE	ND	5.1	2.0
1,2,3-TRICHLOROPROPANE	ND	5.1	2.0
1,2,4-TRICHLOROBENZENE	ND	5.1	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.1	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.1	2.0
1,2-DICHLOROBENZENE	ND	5.1	1.0
1,2-DICHLOROETHANE	ND	5.1	1.0
1,2-DICHLOROPROPANE	ND	5.1	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.1	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.1	1.0
1,3-DICHLOROBENZENE	ND	5.1	1.0
1,3-DICHLOROPROPANE	ND	5.1	1.0
1,4-DICHLOROBENZENE	ND	5.1	1.0
2,2-DICHLOROPROPANE	ND	5.1	2.0
2-CHLOROTOLUENE	ND	5.1	1.0
4-CHLOROTOLUENE	ND	5.1	1.0
BENZENE	ND	5.1	1.0
BROMOBENZENE	ND	5.1	1.0
BROMOCHLOROMETHANE	ND	5.1	1.0
BROMODICHLOROMETHANE	ND	5.1	1.0
BROMOFORM	ND	5.1	2.0
BROMOMETHANE	ND	5.1	2.0
CARBON TETRACHLORIDE	ND	5.1	1.0
CHLOROBENZENE	ND	5.1	1.0
CHLOROETHANE	ND	5.1	2.0
CHLOROFORM	ND	5.1	1.0
CHLOROMETHANE	ND	5.1	2.0
CIS-1,2-DICHLOROETHENE	ND	5.1	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.1	1.0
DIBROMOCHLOROMETHANE	ND	5.1	1.0
DIBROMOMETHANE	ND	5.1	1.0
DICHLORODIFLUOROMETHANE	ND	5.1	2.0
ETHYLBENZENE	ND	5.1	1.0
HEXACHLOROBUTADIENE	ND	5.1	2.0
ISOPROPYL BENZENE	ND	5.1	1.0
M,P-XYLENE	ND	5.1	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.1	1.0
METHYLENE CHLORIDE	ND	5.1	2.0
N-BUTYLBENZENE	ND	5.1	1.0
N-PROPYLBENZENE	ND	5.1	1.0
O-XYLENE	ND	5.1	1.0
P-ISOPROPYLTOLUENE	ND	5.1	1.0
SEC-BUTYLBENZENE	ND	5.1	1.0
STYRENE	ND	5.1	1.0
TERT-BUTYLBENZENE	ND	5.1	1.0
TETRACHLOROETHENE	ND	5.1	1.0
TOLUENE	ND	5.1	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.1	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.1	1.0
TRICHLOROETHENE	ND	5.1	1.0
TRICHLOROFLUOROMETHANE	ND	5.1	2.0
VINYL CHLORIDE	ND	5.1	2.0
ACETONE	ND	10	5.1
2-BUTANONE (MEK)	ND	10	5.1
2-HEXANONE	ND	10	5.1
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.1
FREON113	ND	5.1	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.1	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.1	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.1	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	49.4	51.03	96.8	80-120
4-BROMOFLUOROBENZENE	52.7	51.03	103	74-121
TOLUENE-D8	50.0	51.03	98.0	81-117
DIBROMOFLUOROMETHANE	48.8	51.03	95.6	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B174	Date Extracted: 02/21/12 18:47
Sample ID: MBLK1S	Date Analyzed: 02/21/12 18:47
Lab Samp ID: VO03B20B	Dilution Factor: 1
Lab File ID: RBB315	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-O03

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	47.3	50.00	94.6	80-120
4-BROMOFLUOROBENZENE	50.9	50.00	102	74-121
TOLUENE-D8	48.0	50.00	95.9	81-117
DIBROMOFLUOROMETHANE	48.5	50.00	97.0	80-120

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B174	Date Extracted: 02/21/12 21:39
Sample ID: MBLK2S	Date Analyzed: 02/21/12 21:39
Lab Samp ID: VPB026SB	Dilution Factor: 1
Lab File ID: RBB320	Matrix : SOIL
Ext Btch ID: VO03B20	% Moisture : NA
Calib. Ref.: RBB256	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,1-DICHLOROPROPENE	ND	5.0	1.0
1,2,3-TRICHLOROBENZENE	ND	5.0	2.0
1,2,3-TRICHLOROPROPANE	ND	5.0	2.0
1,2,4-TRICHLOROBENZENE	ND	5.0	2.0
1,2,4-TRIMETHYLBENZENE	ND	5.0	1.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DICHLOROBENZENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
1,2-DIBROMOETHANE (EDB)	ND	5.0	1.0
1,3,5-TRIMETHYLBENZENE	ND	5.0	1.0
1,3-DICHLOROBENZENE	ND	5.0	1.0
1,3-DICHLOROPROPANE	ND	5.0	1.0
1,4-DICHLOROBENZENE	ND	5.0	1.0
2,2-DICHLOROPROPANE	ND	5.0	2.0
2-CHLOROTOLUENE	ND	5.0	1.0
4-CHLOROTOLUENE	ND	5.0	1.0
BENZENE	ND	5.0	1.0
BROMOBENZENE	ND	5.0	1.0
BROMOCHLOROMETHANE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
DIBROMOMETHANE	ND	5.0	1.0
DICHLORODIFLUOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	1.0
HEXACHLOROBUTADIENE	ND	5.0	2.0
ISOPROPYL BENZENE	ND	5.0	1.0
M,P-XYLENE	ND	5.0	2.0
METHYL TERT-BUTYL ETHER (MTBE)	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.0
N-BUTYLBENZENE	ND	5.0	1.0
N-PROPYLBENZENE	ND	5.0	1.0
O-XYLENE	ND	5.0	1.0
P-ISOPROPYLTOLUENE	ND	5.0	1.0
SEC-BUTYLBENZENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TERT-BUTYLBENZENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	ND	5.0	1.0
TRICHLOROFLUOROMETHANE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
ACETONE	ND	10	5.0
2-BUTANONE (MEK)	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE (MIBK)	ND	10	5.0
FREON113	ND	5.0	2.0
2-CHLOROETHYL VINYL ETHER	ND	5.0	2.0
2-CHLORO-1,1,1-TRIFLUOROETHANE	ND	5.0	2.0
CHLOROTRIFLUOROETHYLENE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	51.9	50.00	104	80-120
4-BROMOFLUOROBENZENE	50.1	50.00	100	74-121
TOLUENE-D8	48.2	50.00	96.5	81-117
DIBROMOFLUOROMETHANE	50.4	50.00	101	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 5035/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VO03B20B VO03B20L VO03B20C
LAB FILE ID: RBB315 RBB310 RBB311
DATE EXTRACTED: 02/21/1218:47 02/21/1216:04 02/21/1216:36 DATE COLLECTED: NA
DATE ANALYZED: 02/21/1218:47 02/21/1216:04 02/21/1216:36 DATE RECEIVED: 02/21/12
PREP. BATCH: VO03B20 VO03B20 VO03B20
CALIB. REF: RBB256 RBB256 RBB256

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50.0	49.3	99	50.0	50.9	102	3	70-130	50
1,1,1-Trichloroethane	ND	50.0	49.6	99	50.0	50.5	101	2	60-130	50
1,1,2,2-Tetrachloroethane	ND	50.0	51.6	103	50.0	53.3	107	3	70-150	50
1,1,2-Trichloroethane	ND	50.0	49.4	99	50.0	50.8	102	3	70-140	50
1,1-Dichloroethane	ND	50.0	50.5	101	50.0	51.8	104	2	70-140	50
1,1-Dichloroethene	ND	50.0	48.8	98	50.0	49.5	99	1	60-130	50
1,1-Dichloropropene	ND	50.0	48.9	98	50.0	50.4	101	3	70-130	50
1,2,3-Trichlorobenzene	ND	50.0	48.8	98	50.0	48.4	97	1	60-150	50
1,2,3-Trichloropropane	ND	50.0	51.6	103	50.0	52.9	106	3	60-150	50
1,2,4-Trichlorobenzene	ND	50.0	50.7	101	50.0	50.6	101	0	60-140	50
1,2,4-Trimethylbenzene	ND	50.0	51.5	103	50.0	52.6	105	2	70-130	50
1,2-Dibromo-3-chloropropane	ND	50.0	47.7	95	50.0	48.6	97	2	50-150	50
1,2-Dichlorobenzene	ND	50.0	52.0	104	50.0	52.9	106	2	70-130	50
1,2-Dichloroethane	ND	50.0	47.2	94	50.0	48.4	97	3	60-140	50
1,2-Dichloropropane	ND	50.0	49.4	99	50.0	51.5	103	4	70-130	50
1,2-Dibromoethane (EDB)	ND	50.0	50.1	100	50.0	51.6	103	3	50-150	50
1,3,5-Trimethylbenzene	ND	50.0	51.9	104	50.0	53.3	107	3	70-130	50
1,3-Dichlorobenzene	ND	50.0	52.9	106	50.0	54.3	109	3	70-130	50
1,3-Dichloropropane	ND	50.0	49.6	99	50.0	51.4	103	4	70-140	50
1,4-Dichlorobenzene	ND	50.0	53.2	106	50.0	53.6	107	1	70-130	50
2,2-Dichloropropane	ND	50.0	51.2	102	50.0	51.2	102	0	40-140	50
2-Chlorotoluene	ND	50.0	51.4	103	50.0	52.5	105	2	70-130	50
4-Chlorotoluene	ND	50.0	52.3	105	50.0	53.2	106	2	70-130	50
Benzene	ND	50.0	48.9	98	50.0	50.0	100	2	70-130	50
Bromobenzene	ND	50.0	51.0	102	50.0	52.2	104	2	70-130	50
Bromochloromethane	ND	50.0	51.4	103	50.0	52.8	106	3	60-150	50
Bromodichloromethane	ND	50.0	48.6	97	50.0	50.4	101	4	60-130	50
Bromoform	ND	50.0	52.2	104	50.0	53.1	106	2	60-130	50
Bromomethane	ND	50.0	51.2	102	50.0	48.1	96	6	40-160	50
Carbon Tetrachloride	ND	50.0	46.3	93	50.0	48.7	97	5	50-130	50
Chlorobenzene	ND	50.0	49.7	99	50.0	50.8	102	2	70-130	50
Chloroethane	ND	50.0	52.6	105	50.0	50.4	101	4	60-150	50
Chloroform	ND	50.0	49.5	99	50.0	51.4	103	4	70-130	50
Chloromethane	ND	50.0	51.1	102	50.0	47.8	96	7	50-150	50
cis-1,2-Dichloroethene	ND	50.0	50.4	101	50.0	51.7	103	3	70-130	50
cis-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	51.3	103	2	60-130	50
Dibromochloromethane	ND	50.0	50.2	100	50.0	51.5	103	3	70-130	50
Dibromomethane	ND	50.0	49.6	99	50.0	50.2	100	1	70-130	50
Dichlorodifluoromethane	ND	50.0	48.6	97	50.0	45.9	92	6	50-130	50
Ethylbenzene	ND	50.0	50.0	100	50.0	51.1	102	2	70-130	50
Hexachlorobutadiene	ND	50.0	48.9	98	50.0	50.2	100	3	50-140	50
Isopropyl Benzene	ND	50.0	50.5	101	50.0	51.7	103	2	70-140	50
m,p-Xylene	ND	100	97.1	97	100	98.6	99	2	70-140	50
Methyl tert-butyl Ether (MTBE)	ND	50.0	48.5	97	50.0	49.8	100	3	60-150	50
Methylene Chloride	ND	50.0	49.5	99	50.0	51.5	103	4	70-130	50
n-Butylbenzene	ND	50.0	53.6	107	50.0	54.2	108	1	50-150	50
n-Propylbenzene	ND	50.0	52.2	104	50.0	53.1	106	2	70-130	50
o-Xylene	ND	50.0	49.0	98	50.0	50.2	100	2	70-130	50

p-Isopropyltoluene	ND	50.0	51.4	103	50.0	52.5	105	2	60-140	50
Sec-Butylbenzene	ND	50.0	50.8	102	50.0	51.9	104	2	70-130	50
Styrene	ND	50.0	53.5	107	50.0	55.1	110	3	60-140	50
Tert-Butylbenzene	ND	50.0	51.7	103	50.0	53.0	106	2	70-130	50
Tetrachloroethene	ND	50.0	48.6	97	50.0	50.0	100	3	70-130	50
Toluene	ND	50.0	49.0	98	50.0	50.4	101	3	70-130	50
Trans-1,2-Dichloroethene	ND	50.0	49.2	98	50.0	50.8	102	3	70-130	50
Trans-1,3-Dichloropropene	ND	50.0	50.4	101	50.0	52.0	104	3	60-140	50
Trichloroethene	ND	50.0	48.5	97	50.0	49.1	98	1	70-130	50
Trichlorofluoromethane	ND	50.0	49.9	100	50.0	47.6	95	5	70-140	50
Vinyl Chloride	ND	50.0	51.1	102	50.0	49.5	99	3	60-150	50
Acetone	ND	250	243	97	250	250	100	3	40-160	50
2-Butanone (MEK)	ND	250	243	97	250	254	102	4	50-160	50
2-Hexanone	ND	250	244	98	250	254	102	4	60-160	50
4-Methyl-2-Pentanone (MIBK)	ND	250	242	97	250	256	103	6	70-160	50
Freon113	ND	50.0	50.1	100	50.0	51.2	102	2	50-140	50
2-Chloroethyl Vinyl Ether	ND	50.0	50.3	101	50.0	48.1	96	4	50-150	50
2-Chloro-1,1,1-trifluoroethane	ND	50.0	52.1	104	50.0	51.3	103	2	50-150	50
Chlorotrifluoroethylene	ND	50.0	53.0	106	50.0	49.1	98	8	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	46.2	92	50.0	46.6	93	80-120
4-Bromofluorobenzene	50.0	51.6	103	50.0	51.4	103	74-121
Toluene-d8	50.0	48.3	97	50.0	48.8	98	81-117
Dibromofluoromethane	50.0	48.2	96	50.0	48.4	97	80-120

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/21/12 21:56
Sample ID: TB-021712	Date Analyzed: 02/21/12 21:56
Lab Samp ID: B174-07	Dilution Factor: 1
Lab File ID: RBY345	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	4.44	5.000	88.8	50-150

METHOD 5030B/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B174	Date Extracted: 02/21/12 18:53
Sample ID: MBLK1W	Date Analyzed: 02/21/12 18:53
Lab Samp ID: VOF5B13B	Dilution Factor: 1
Lab File ID: RBY339	Matrix : WATER
Ext Btch ID: VOF5B13	% Moisture : NA
Calib. Ref.: RKY092	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	4.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.33	5.000	107	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOF5B13B	VOF5B13L	VOF5B13C		
LAB FILE ID:	RBY339	RBY336	RBY337		
DATE EXTRACTED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1218:53	02/21/1217:22	02/21/1217:52	DATE RECEIVED:	02/21/12
PREP. BATCH:	VOF5B13	VOF5B13	VOF5B13		
CALIB. REF:	RKY092	RKY092	RKY092		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	50.0	52.2	104	50.0	50.0	100	4	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	5.00	5.61	112	5.00	5.26	105	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 15:33
Sample ID: SL-325-SA6-SB-22.0	Date Analyzed: 02/23/12 15:33
Lab Samp ID: B174-01R	Dilution Factor: 0.98
Lab File ID: RBY377	Matrix : SOIL
Ext Btch ID: VOF5B15	% Moisture : 27.0
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	13	6.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	13.7	26.85	51.0	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 16:03
Sample ID: SL-325-SA6-SB-26.5	Date Analyzed: 02/23/12 16:03
Lab Samp ID: B174-03R	Dilution Factor: 0.94
Lab File ID: RBY378	Matrix : SOIL
Ext Btch ID: VOF5B15	% Moisture : 7.9
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.1

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	12.3	20.41	60.3	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B174	Date Extracted: 02/23/12 13:59
Sample ID: MBLK1S	Date Analyzed: 02/23/12 13:59
Lab Samp ID: VOF5B15B	Dilution Factor: 1
Lab File ID: RBY374	Matrix : SOIL
Ext Btch ID: VOF5B15	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	17.3	20.00	86.6	50-150

METHOD 5035/8260B SIM
VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B174	Date Extracted: 02/23/12 15:02
Sample ID: MBLK2S	Date Analyzed: 02/23/12 15:02
Lab Samp ID: VPB030SB	Dilution Factor: 1
Lab File ID: RBY376	Matrix : SOIL
Ext Btch ID: VOF5B15	% Moisture : NA
Calib. Ref.: RJY282	Instrument ID : TOF5

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,4-DIOXANE	ND	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	15.6	20.00	78.1	50-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 5035/8260B SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOF5B15B	VOF5B15L	VOF5B15C		
LAB FILE ID:	RBY374	RBY371	RBY372		
DATE EXTRACTED:	02/23/1213:59	02/23/1212:27	02/23/1212:57	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1213:59	02/23/1212:27	02/23/1212:57	DATE RECEIVED:	02/23/12
PREP. BATCH:	VOF5B15	VOF5B15	VOF5B15		
CALIB. REF:	RJY282	RJY282	RJY282		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	200	218	109	200	219	109	0	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	20.0	17.9	89	20.0	17.2	86	50-150

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/22/12 21:20
Lab Samp ID: B174-02	Dilution Factor: 1
Lab File ID: RBJ152	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 22.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	220	110
1,2-DICHLOROBENZENE	ND	220	110
1,3-DICHLOROBENZENE	ND	220	110
1,4-DICHLOROBENZENE	ND	220	110
2,4,5-TRICHLOROPHENOL	ND	220	110
2,4,6-TRICHLOROPHENOL	ND	220	110
2,4-DICHLOROPHENOL	ND	220	110
2,4-DIMETHYLPHENOL	ND	220	110
2,4-DINITROPHENOL	ND	430	220
2,4-DINITROTOLUENE	ND	220	110
2,6-DINITROTOLUENE	ND	220	110
2-CHLORONAPHTHALENE	ND	220	110
2-CHLOROPHENOL	ND	220	110
2-METHYLNAPHTHALENE	ND	220	110
2-METHYLPHENOL	ND	220	110
2-NITROANILINE	ND	220	110
2-NITROPHENOL	ND	220	110
3,3'-DICHLOROBENZIDINE	ND	220	110
3-NITROANILINE	ND	220	110
4,6-DINITRO-2-METHYLPHENOL	ND	430	220
4-BROMOPHENYL-PHENYLETHER	ND	220	110
4-CHLORO-3-METHYLPHENOL	ND	220	110
4-CHLOROANILINE	ND	220	110
4-CHLOROPHENYL-PHENYLETHER	ND	220	110
4-METHYLPHENOL (1)	ND	220	110
4-NITROANILINE	ND	220	110
4-NITROPHENOL	ND	430	220
ACENAPHTHENE	ND	220	110
ACENAPHTHYLENE	ND	220	110
ANTHRACENE	ND	220	110
BENZO(A)ANTHRACENE	ND	220	110
BENZO(A)PYRENE	ND	220	110
BENZO(B)FLUORANTHENE	ND	220	110
BENZO(K)FLUORANTHENE	ND	220	110
BENZO(G,H,I)PERYLENE	ND	220	110
BIS(2-CHLOROETHOXY)METHANE	ND	220	110
BIS(2-CHLOROETHYL)ETHER	ND	220	110
BIS(2-CHLOROISOPROPYL)ETHER	ND	220	110
BIS(2-ETHYLHEXYL)PHTHALATE	230	220	110
BUTYLBENZYLPHTHALATE	ND	220	110
CHRYSENE	ND	220	110
DI-N-BUTYLPHTHALATE	ND	220	110
DI-N-OCTYLPHTHALATE	ND	220	110
DIBENZO(A,H)ANTHRACENE	ND	220	110
DIBENZOFURAN	ND	220	110
DIETHYLPHTHALATE	ND	220	110
DIMETHYLPHTHALATE	ND	220	110
FLUORANTHENE	ND	220	110
FLUORENE	ND	220	110
HEXACHLOROBENZENE	ND	220	110
HEXACHLOROBUTADIENE	ND	220	110
HEXACHLOROCYCLOPENTADIENE	ND	220	110
HEXACHLOROETHANE	ND	220	110
INDENO(1,2,3-CD)PYRENE	ND	220	110
ISOPHORONE	ND	220	110
N-NITROSO-DI-N-PROPYLAMINE	ND	220	110
N-NITROSODIPHENYLAMINE (2)	ND	220	110
NAPHTHALENE	6700E	220	110
NITROBENZENE	ND	220	110
PENTACHLOROPHENOL	ND	430	220
PHENANTHRENE	ND	220	110
PHENOL	ND	220	110
PYRENE	ND	220	110
BENZYL ALCOHOL	ND	220	110
1-METHYLNAPHTHALENE	ND	220	110
1,2-DIPHENYLHYDRAZINE	ND	220	110
3,5-DIMETHYLPHENOL	ND	220	110
ANILINE	ND	430	220
BENZIDINE	ND	1100	540
BENZOIC ACID	ND	860	430
CARBAZOLE	ND	220	110
N-NITROSODIMETHYLAMINE	ND	220	110
TETRALIN	260000	220	220
2-BUTOXYETHANOL	ND	220	220
2-PHENOXYETHANOL	ND	220	220

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	42.6	1292	3.30*	35-130
2-FLUOROBIPHENYL	381	430.6	88.4	45-130
2-FLUOROPHENOL	278	1292	21.5*	25-130
NITROBENZENE-D5	893	430.6	207*	40-130
PHENOL-D5	537	1292	41.6	25-120
TERPHENYL-D14	399	430.6	92.6	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC. Tetralin was detected with peak saturation.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-22.5-23.5DL	Date Analyzed: 02/23/12 16:00
Lab Samp ID: B174-02T	Dilution Factor: 10
Lab File ID: RBJ173	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 22.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	2200	1100
1,2-DICHLOROBENZENE	ND	2200	1100
1,3-DICHLOROBENZENE	ND	2200	1100
1,4-DICHLOROBENZENE	ND	2200	1100
2,4,5-TRICHLOROPHENOL	ND	2200	1100
2,4,6-TRICHLOROPHENOL	ND	2200	1100
2,4-DICHLOROPHENOL	ND	2200	1100
2,4-DIMETHYLPHENOL	ND	2200	1100
2,4-DINITROPHENOL	ND	4300	2200
2,4-DINITROTOLUENE	ND	2200	1100
2,6-DINITROTOLUENE	ND	2200	1100
2-CHLORONAPHTHALENE	ND	2200	1100
2-CHLOROPHENOL	ND	2200	1100
2-METHYLNAPHTHALENE	ND	2200	1100
2-METHYLPHENOL	ND	2200	1100
2-NITROANILINE	ND	2200	1100
2-NITROPHENOL	ND	2200	1100
3,3'-DICHLOROBENZIDINE	ND	2200	1100
3-NITROANILINE	ND	2200	1100
4,6-DINITRO-2-METHYLPHENOL	ND	4300	2200
4-BROMOPHENYL-PHENYLETHER	ND	2200	1100
4-CHLORO-3-METHYLPHENOL	ND	2200	1100
4-CHLOROANILINE	ND	2200	1100
4-CHLOROPHENYL-PHENYLETHER	ND	2200	1100
4-METHYLPHENOL (1)	ND	2200	1100
4-NITROANILINE	ND	2200	1100
4-NITROPHENOL	ND	4300	2200
ACENAPHTHENE	ND	2200	1100
ACENAPHTHYLENE	ND	2200	1100
ANTHRACENE	ND	2200	1100
BENZO(A)ANTHRACENE	ND	2200	1100
BENZO(A)PYRENE	ND	2200	1100
BENZO(B)FLUORANTHENE	ND	2200	1100
BENZO(K)FLUORANTHENE	ND	2200	1100
BENZO(G,H,I)PERYLENE	ND	2200	1100
BIS(2-CHLOROETHOXY)METHANE	ND	2200	1100
BIS(2-CHLOROETHYL)ETHER	ND	2200	1100
BIS(2-CHLOROISOPROPYL)ETHER	ND	2200	1100
BIS(2-ETHYLHEXYL)PHTHALATE	ND	2200	1100
BUTYLBENZYLPHTHALATE	ND	2200	1100
CHRYSENE	ND	2200	1100
DI-N-BUTYLPHTHALATE	ND	2200	1100
DI-N-OCTYLPHTHALATE	ND	2200	1100
DIBENZO(A,H)ANTHRACENE	ND	2200	1100
DIBENZOFURAN	ND	2200	1100
DIETHYLPHTHALATE	ND	2200	1100
DIMETHYLPHTHALATE	ND	2200	1100
FLUORANTHENE	ND	2200	1100
FLUORENE	ND	2200	1100
HEXACHLOROBENZENE	ND	2200	1100
HEXACHLOROBUTADIENE	ND	2200	1100
HEXACHLOROCYCLOPENTADIENE	ND	2200	1100
HEXACHLOROETHANE	ND	2200	1100
INDENO(1,2,3-CD)PYRENE	ND	2200	1100
ISOPHORONE	ND	2200	1100
N-NITROSO-DI-N-PROPYLAMINE	ND	2200	1100
N-NITROSODIPHENYLAMINE (2)	ND	2200	1100
NAPHTHALENE	5000	2200	1100
NITROBENZENE	ND	2200	1100
PENTACHLOROPHENOL	ND	4300	2200
PHENANTHRENE	ND	2200	1100
PHENOL	ND	2200	1100
PYRENE	ND	2200	1100
BENZYL ALCOHOL	ND	2200	1100
1-METHYLNAPHTHALENE	ND	2200	1100
1,2-DIPHENYLHYDRAZINE	ND	2200	1100
3,5-DIMETHYLPHENOL	ND	2200	1100
ANILINE	ND	4300	2200
BENZIDINE	ND	11000	5400
BENZOIC ACID	ND	8600	4300
CARBAZOLE	ND	2200	1100
N-NITROSODIMETHYLAMINE	ND	2200	1100
TETRALIN	480000	2200	2200
2-BUTOXYETHANOL	ND	2200	2200
2-PHENOXYETHANOL	ND	2200	2200

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	ND	430.6	0.00*	35-130
2-FLUOROBIPHENYL	356	430.6	82.7	45-130
2-FLUOROPHENOL	ND	430.6	0.00*	25-130
NITROBENZENE-D5	702	430.6	163*	40-130
PHENOL-D5	481	1292	37.2	25-120
TERPHENYL-D14	399	430.6	92.6	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/22/12 20:42
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: RBJ150	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 8.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	92
1,2-DICHLOROBENZENE	ND	180	92
1,3-DICHLOROBENZENE	ND	180	92
1,4-DICHLOROBENZENE	ND	180	92
2,4,5-TRICHLOROPHENOL	ND	180	92
2,4,6-TRICHLOROPHENOL	ND	180	92
2,4-DICHLOROPHENOL	ND	180	92
2,4-DIMETHYLPHENOL	ND	180	92
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	92
2,6-DINITROTOLUENE	ND	180	92
2-CHLORONAPHTHALENE	ND	180	92
2-CHLOROPHENOL	ND	180	92
2-METHYLNAPHTHALENE	ND	180	92
2-METHYLPHENOL	ND	180	92
2-NITROANILINE	ND	180	92
2-NITROPHENOL	ND	180	92
3,3'-DICHLOROBENZIDINE	ND	180	92
3-NITROANILINE	ND	180	92
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	92
4-CHLORO-3-METHYLPHENOL	ND	180	92
4-CHLOROANILINE	ND	180	92
4-CHLOROPHENYL-PHENYLETHER	ND	180	92
4-METHYLPHENOL (1)	ND	180	92
4-NITROANILINE	ND	180	92
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	92
ACENAPHTHYLENE	ND	180	92
ANTHRACENE	ND	180	92
BENZO(A)ANTHRACENE	ND	180	92
BENZO(A)PYRENE	ND	180	92
BENZO(B)FLUORANTHENE	ND	180	92
BENZO(K)FLUORANTHENE	ND	180	92
BENZO(G,H,I)PERYLENE	ND	180	92
BIS(2-CHLOROETHOXY)METHANE	ND	180	92
BIS(2-CHLOROETHYL)ETHER	ND	180	92
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	92
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	92
BUTYLBENZYLPHTHALATE	ND	180	92
CHRYSENE	ND	180	92
DI-N-BUTYLPHTHALATE	ND	180	92
DI-N-OCTYLPHTHALATE	ND	180	92
DIBENZO(A,H)ANTHRACENE	ND	180	92
DIBENZOFURAN	ND	180	92
DIETHYLPHTHALATE	ND	180	92
DIMETHYLPHTHALATE	ND	180	92
FLUORANTHENE	ND	180	92
FLUORENE	ND	180	92
HEXACHLOROBENZENE	ND	180	92
HEXACHLOROBUTADIENE	ND	180	92
HEXACHLOROCYCLOPENTADIENE	ND	180	92
HEXACHLOROETHANE	ND	180	92
INDENO(1,2,3-CD)PYRENE	ND	180	92
ISOPHORONE	ND	180	92
N-NITROSO-DI-N-PROPYLAMINE	ND	180	92
N-NITROSODIPHENYLAMINE (2)	ND	180	92
NAPHTHALENE	ND	180	92
NITROBENZENE	ND	180	92
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	92
PHENOL	ND	180	92
PYRENE	ND	180	92
BENZYL ALCOHOL	ND	180	92
1-METHYLNAPHTHALENE	ND	180	92
1,2-DIPHENYLHYDRAZINE	ND	180	92
3,5-DIMETHYLPHENOL	ND	180	92
ANILINE	ND	360	180
BENZIDINE	ND	910	460
BENZOIC ACID	ND	730	360
CARBAZOLE	ND	180	92
N-NITROSODIMETHYLAMINE	ND	180	92
TETRALIN	170	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	709	1091	65.0	35-130
2-FLUOROBIPHENYL	215	363.5	59.1	45-130
2-FLUOROPHENOL	526	1091	48.2	25-130
NITROBENZENE-D5	184	363.5	50.6	40-130
PHENOL-D5	550	1091	50.5	25-120
TERPHENYL-D14	297	363.5	81.8	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 21:01
Lab Samp ID: B174-06	Dilution Factor: 1
Lab File ID: RBJ151	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 7.0
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	90
1,2-DICHLOROBENZENE	ND	180	90
1,3-DICHLOROBENZENE	ND	180	90
1,4-DICHLOROBENZENE	ND	180	90
2,4,5-TRICHLOROPHENOL	ND	180	90
2,4,6-TRICHLOROPHENOL	ND	180	90
2,4-DICHLOROPHENOL	ND	180	90
2,4-DIMETHYLPHENOL	ND	180	90
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	90
2,6-DINITROTOLUENE	ND	180	90
2-CHLORONAPHTHALENE	ND	180	90
2-CHLOROPHENOL	ND	180	90
2-METHYLNAPHTHALENE	ND	180	90
2-METHYLPHENOL	ND	180	90
2-NITROANILINE	ND	180	90
2-NITROPHENOL	ND	180	90
3,3'-DICHLOROBENZIDINE	ND	180	90
3-NITROANILINE	ND	180	90
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	90
4-CHLORO-3-METHYLPHENOL	ND	180	90
4-CHLOROANILINE	ND	180	90
4-CHLOROPHENYL-PHENYLETHER	ND	180	90
4-METHYLPHENOL (1)	ND	180	90
4-NITROANILINE	ND	180	90
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	90
ACENAPHTHYLENE	ND	180	90
ANTHRACENE	ND	180	90
BENZO(A)ANTHRACENE	ND	180	90
BENZO(A)PYRENE	ND	180	90
BENZO(B)FLUORANTHENE	ND	180	90
BENZO(K)FLUORANTHENE	ND	180	90
BENZO(G,H,I)PERYLENE	ND	180	90
BIS(2-CHLOROETHOXY)METHANE	ND	180	90
BIS(2-CHLOROETHYL)ETHER	ND	180	90
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	90
BUTYLBENZYLPHTHALATE	ND	180	90
CHRYSENE	ND	180	90
DI-N-BUTYLPHTHALATE	ND	180	90
DI-N-OCTYLPHTHALATE	ND	180	90
DIBENZO(A,H)ANTHRACENE	ND	180	90
DIBENZOFURAN	ND	180	90
DIETHYLPHTHALATE	ND	180	90
DIMETHYLPHTHALATE	ND	180	90
FLUORANTHENE	ND	180	90
FLUORENE	ND	180	90
HEXACHLOROBENZENE	ND	180	90
HEXACHLOROBUTADIENE	ND	180	90
HEXACHLOROCYCLOPENTADIENE	ND	180	90
HEXACHLOROETHANE	ND	180	90
INDENO(1,2,3-CD)PYRENE	ND	180	90
ISOPHORONE	ND	180	90
N-NITROSO-DI-N-PROPYLAMINE	ND	180	90
N-NITROSODIPHENYLAMINE (2)	ND	180	90
NAPHTHALENE	ND	180	90
NITROBENZENE	ND	180	90
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	90
PHENOL	ND	180	90
PYRENE	ND	180	90
BENZYL ALCOHOL	ND	180	90
1-METHYLNAPHTHALENE	ND	180	90
1,2-DIPHENYLHYDRAZINE	ND	180	90
3,5-DIMETHYLPHENOL	ND	180	90
ANILINE	ND	360	180
BENZIDINE	ND	890	450
BENZOIC ACID	ND	720	360
CARBAZOLE	ND	180	90
N-NITROSODIMETHYLAMINE	ND	180	90
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	237	1075	22.1*	35-130
2-FLUOROBIPHENYL	249	358.4	69.4	45-130
2-FLUOROPHENOL	543	1075	50.5	25-130
NITROBENZENE-D5	209	358.4	58.4	40-130
PHENOL-D5	635	1075	59.1	25-120
TERPHENYL-D14	324	358.4	90.5	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	767	1000	76.7	35-130
2-FLUOROBIPHENYL	254	333.3	76.2	45-130
2-FLUOROPHENOL	718	1000	71.8	25-130
NITROBENZENE-D5	255	333.3	76.6	40-130
PHENOL-D5	716	1000	71.6	25-120
TERPHENYL-D14	313	333.3	94.0	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB028SB SVB028SL SVB028SC
LAB FILE ID: RBJ142 RBJ143 RBJ144
DATE EXTRACTED: 02/22/1212:09 02/22/1212:09 02/22/1212:09 DATE COLLECTED: NA
DATE ANALYZED: 02/22/1218:12 02/22/1218:31 02/22/1218:49 DATE RECEIVED: 02/22/12
PREP. BATCH: SVB028S SVB028S SVB028S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	479	72	667	439	66	9	30-130	50
1,2-Dichlorobenzene	ND	667	499	75	667	450	68	10	40-130	50
1,3-Dichlorobenzene	ND	667	492	74	667	445	67	10	40-130	50
1,4-Dichlorobenzene	ND	667	493	74	667	444	67	10	30-130	50
2,4,5-Trichlorophenol	ND	667	528	79	667	487	73	8	40-130	50
2,4,6-Trichlorophenol	ND	667	538	81	667	493	74	9	40-130	50
2,4-Dichlorophenol	ND	667	517	77	667	471	71	9	40-130	50
2,4-Dimethylphenol	ND	667	513	77	667	462	69	10	40-130	50
2,4-Dinitrophenol	ND	667	398	60	667	420	63	5	20-130	50
2,4-Dinitrotoluene	ND	667	577	87	667	588	88	2	30-130	50
2,6-Dinitrotoluene	ND	667	546	82	667	538	81	1	50-130	50
2-Chloronaphthalene	ND	667	548	82	667	509	76	7	50-130	50
2-Chlorophenol	ND	667	537	81	667	457	69	16	30-130	50
2-Methylnaphthalene	ND	667	545	82	667	502	75	8	40-130	50
2-Methylphenol	ND	667	516	77	667	461	69	11	40-130	50
2-Nitroaniline	ND	667	531	80	667	520	78	2	40-130	50
2-Nitrophenol	ND	667	534	80	667	488	73	9	40-130	50
3,3'-Dichlorobenzidine	ND	667	565	85	667	533	80	6	50-130	50
3-Nitroaniline	ND	667	487	73	667	513	77	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	560	84	667	558	84	0	40-160	50
4-Bromophenyl-phenylether	ND	667	570	86	667	531	80	7	40-140	50
4-Chloro-3-Methylphenol	ND	667	528	79	667	481	72	9	30-130	50
4-Chloroaniline	ND	667	458	69	667	416	62	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	530	80	667	496	74	7	40-140	50
4-Methylphenol	ND	667	537	81	667	480	72	11	30-130	50
4-Nitroaniline	ND	667	587	88	667	554	83	6	50-130	50
4-Nitrophenol	ND	667	493	74	667	528	79	7	20-140	50
Acenaphthene	ND	667	534	80	667	493	74	8	30-130	50
Acenaphthylene	ND	667	542	81	667	508	76	6	30-130	50
Anthracene	ND	667	559	84	667	536	80	4	30-130	50
Benzo(a)anthracene	ND	667	612	92	667	573	86	7	40-130	50
Benzo(a)pyrene	ND	667	577	87	667	549	82	5	40-130	50
Benzo(b)fluoranthene	ND	667	620	93	667	593	89	4	40-140	50
Benzo(k)fluoranthene	ND	667	622	93	667	566	85	9	40-140	50
Benzo(g,h,i)perylene	ND	667	611	92	667	574	86	6	40-140	50
bis(2-Chloroethoxy)methane	ND	667	496	74	667	462	69	7	40-130	50
bis(2-Chloroethyl)ether	ND	667	500	75	667	460	69	8	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	533	80	667	449	67	17	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	676	101	667	634	95	6	40-150	50
Butylbenzylphthalate	ND	667	678	102	667	631	95	7	40-150	50
Chrysene	ND	667	631	95	667	585	88	8	40-140	50
Di-n-butylphthalate	ND	667	640	96	667	612	92	5	10-130	50
Di-n-octylphthalate	ND	667	679	102	667	634	95	7	20-140	50
Dibenzo(a,h)anthracene	ND	667	620	93	667	576	86	7	40-130	50
Dibenzofuran	ND	667	535	80	667	497	75	7	40-130	50
Diethylphthalate	ND	667	579	87	667	569	85	2	40-130	50
Dimethylphthalate	ND	667	575	86	667	545	82	5	40-130	50
Fluoranthene	ND	667	604	91	667	599	90	1	40-130	50

Fluorene	ND	667	547	82	667	524	79	4	30-130	50
Hexachlorobenzene	ND	667	591	89	667	560	84	5	30-130	50
Hexachlorobutadiene	ND	667	500	75	667	464	70	8	10-130	50
Hexachlorocyclopentadiene	ND	667	402	60	667	378	57	6	10-130	50
Hexachloroethane	ND	667	494	74	667	455	68	8	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	628	94	667	585	88	7	30-140	50
Isophorone	ND	667	546	82	667	498	75	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	510	77	667	467	70	9	30-130	50
n-Nitrosodiphenylamine	ND	667	445	67	667	416	62	7	30-140	50
Naphthalene	ND	667	518	78	667	481	72	7	30-130	50
Nitrobenzene	ND	667	541	81	667	505	76	7	40-130	50
Pentachlorophenol	ND	667	526	79	667	532	80	1	20-130	50
Phenanthrene	ND	667	580	87	667	559	84	4	30-130	50
Phenol	ND	667	508	76	667	464	70	9	30-130	50
Pyrene	ND	667	599	90	667	560	84	7	30-130	50
Benzyl Alcohol	ND	667	548	82	667	489	73	12	40-130	50
1-Methylnaphthalene	ND	667	545	82	667	499	75	9	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	524	79	9	30-130	50
3,5-Dimethylphenol	ND	667	599	90	667	536	80	11	20-150	50
Aniline	ND	667	370	55	667	334	50	10	20-150	50
Benzidine	ND	2670	1186	44	2670	1377	52	17	20-130	50
Benzoic Acid	ND	2670	770	29	2670	805	30	5	10-130	50
Carbazole	ND	667	581	87	667	578	87	1	40-130	50
N-Nitrosodimethylamine	ND	667	501	75	667	460	69	9	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	809	81	35-130
2-Fluorobiphenyl	333	241	72	333	226	68	45-130
2-Fluorophenol	1000	678	68	1000	633	63	25-130
Nitrobenzene-d5	333	234	70	333	215	65	40-130
Phenol-d5	1000	710	71	1000	648	65	25-120
Terphenyl-d14	333	312	94	333	299	90	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/22/12 21:20
Lab Samp ID: B174-02	Dilution Factor: 1
Lab File ID: RBJ152	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 22.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	2.2	1.1
ACENAPHTHYLENE	ND	2.2	1.1
ANTHRACENE	ND	2.2	1.1
BENZO(A)ANTHRACENE	4.2	2.2	1.1
BENZO(A)PYRENE	ND	2.2	1.1
BENZO(B)FLUORANTHENE	ND	2.2	1.1
BENZO(K)FLUORANTHENE	ND	2.2	1.1
BENZO(G,H,I)PERYLENE	6.2	2.2	1.1
CHRYSENE	26	2.2	1.1
DIBENZO(A,H)ANTHRACENE	ND	2.2	1.1
FLUORANTHENE	ND	2.2	1.1
FLUORENE	ND	2.2	1.1
INDENO(1,2,3-CD)PYRENE	2.1J	2.2	1.1
NAPHTHALENE	3000E	2.2	1.1
PHENANTHRENE	75	2.2	1.1
PYRENE	ND	2.2	1.1
2-METHYLNAPHTHALENE	180	2.2	1.1
1-METHYLNAPHTHALENE	110	2.2	1.1
BIS(2-ETHYLHEXYL)PHTHALATE	270	22	11
BUTYLBENZYLPHTHALATE	ND	22	11
DI-N-BUTYLPHTHALATE	ND	22	11
DI-N-OCTYLPHTHALATE	ND	22	11
DIETHYLPHTHALATE	ND	22	11
DIMETHYLPHTHALATE	ND	22	11
N-NITROSODIMETHYLAMINE	ND	2.2	1.1

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	130	430.6	30.3*	40-130
2-FLUOROBIPHENYL	2.52	430.6	0.585*	45-130
TERPHENYL-D14	451	430.6	105	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-22.5-23.5DL	Date Analyzed: 02/23/12 16:00
Lab Samp ID: B174-02T	Dilution Factor: 10
Lab File ID: RBJ173	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 22.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	22	11
ACENAPHTHYLENE	ND	22	11
ANTHRACENE	ND	22	11
BENZO(A)ANTHRACENE	15J	22	11
BENZO(A)PYRENE	ND	22	11
BENZO(B)FLUORANTHENE	ND	22	11
BENZO(K)FLUORANTHENE	ND	22	11
BENZO(G,H,I)PERYLENE	ND	22	11
CHRYSENE	11J	22	11
DIBENZO(A,H)ANTHRACENE	ND	22	11
FLUORANTHENE	ND	22	11
FLUORENE	ND	22	11
INDENO(1,2,3-CD)PYRENE	ND	22	11
NAPHTHALENE	4400	22	11
PHENANTHRENE	110	22	11
PYRENE	ND	22	11
2-METHYLNAPHTHALENE	350	22	11
1-METHYLNAPHTHALENE	220	22	11
BIS(2-ETHYLHEXYL)PHTHALATE	260	220	110
BUTYLBENZYLPHTHALATE	ND	220	110
DI-N-BUTYLPHTHALATE	ND	220	110
DI-N-OCTYLPHTHALATE	ND	220	110
DIETHYLPHTHALATE	ND	220	110
DIMETHYLPHTHALATE	ND	220	110
N-NITROSODIMETHYLAMINE	ND	22	11

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	296	430.6	68.7	40-130
2-FLUOROBIPHENYL	285	430.6	66.2	45-130
TERPHENYL-D14	406	430.6	94.2	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/22/12 20:42
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: RBJ150	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 8.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.9	0.93
ACENAPHTHYLENE	ND	1.9	0.93
ANTHRACENE	ND	1.9	0.93
BENZO(A)ANTHRACENE	ND	1.9	0.93
BENZO(A)PYRENE	ND	1.9	0.93
BENZO(B)FLUORANTHENE	ND	1.9	0.93
BENZO(K)FLUORANTHENE	ND	1.9	0.93
BENZO(G,H,I)PERYLENE	ND	1.9	0.93
CHRYSENE	ND	1.9	0.93
DIBENZO(A,H)ANTHRACENE	ND	1.9	0.93
FLUORANTHENE	ND	1.9	0.93
FLUORENE	ND	1.9	0.93
INDENO(1,2,3-CD)PYRENE	ND	1.9	0.93
NAPHTHALENE	3.8	1.9	0.93
PHENANTHRENE	ND	1.9	0.93
PYRENE	ND	1.9	0.93
2-METHYLNAPHTHALENE	ND	1.9	0.93
1-METHYLNAPHTHALENE	ND	1.9	0.93
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	9.2
BUTYLBENZYLPHTHALATE	ND	18	9.2
DI-N-BUTYLPHTHALATE	ND	18	9.2
DI-N-OCTYLPHTHALATE	ND	18	9.2
DIETHYLPHTHALATE	ND	18	9.2
DIMETHYLPHTHALATE	ND	18	9.2
N-NITROSODIMETHYLAMINE	ND	1.9	0.93

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	196	363.5	54.0	40-130
2-FLUOROBIPHENYL	189	363.5	52.0	45-130
TERPHENYL-D14	314	363.5	86.3	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 21:01
Lab Samp ID: B174-06	Dilution Factor: 1
Lab File ID: RBJ151	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 7.0
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.91
ACENAPHTHYLENE	ND	1.8	0.91
ANTHRACENE	ND	1.8	0.91
BENZO(A)ANTHRACENE	ND	1.8	0.91
BENZO(A)PYRENE	ND	1.8	0.91
BENZO(B)FLUORANTHENE	1.2J	1.8	0.91
BENZO(K)FLUORANTHENE	ND	1.8	0.91
BENZO(G,H,I)PERYLENE	ND	1.8	0.91
CHRYSENE	ND	1.8	0.91
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.91
FLUORANTHENE	1.0J	1.8	0.91
FLUORENE	ND	1.8	0.91
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.91
NAPHTHALENE	ND	1.8	0.91
PHENANTHRENE	ND	1.8	0.91
PYRENE	ND	1.8	0.91
2-METHYLNAPHTHALENE	ND	1.8	0.91
1-METHYLNAPHTHALENE	ND	1.8	0.91
BIS(2-ETHYLHEXYL)PHTHALATE	17J	18	9.0
BUTYLBENZYLPHTHALATE	ND	18	9.0
DI-N-BUTYLPHTHALATE	ND	18	9.0
DI-N-OCTYLPHTHALATE	ND	18	9.0
DIETHYLPHTHALATE	ND	18	9.0
DIMETHYLPHTHALATE	ND	18	9.0
N-NITROSODIMETHYLAMINE	ND	1.8	0.91

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	215	358.4	60.0	40-130
2-FLUOROBIPHENYL	222	358.4	62.1	45-130
TERPHENYL-D14	309	358.4	86.1	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	264	333.3	79.2	40-130
2-FLUOROBIPHENYL	244	333.3	73.1	45-130
TERPHENYL-D14	325	333.3	97.5	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 3550B/8270C SIM

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB028SB	SVB028SX	SVB028SY		
LAB FILE ID:	RBJ142	RBJ145	RBJ146		
DATE EXTRACTED:	02/22/1212:09	02/22/1212:09	02/22/1212:09	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1218:12	02/22/1219:08	02/22/1219:27	DATE RECEIVED:	02/22/12
PREP. BATCH:	SVB028S	SVB028S	SVB028S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	272	82	333	270	81	1	10-130	50
Acenaphthylene	ND	333	295	89	333	294	88	1	20-130	50
Anthracene	ND	333	266	80	333	270	81	2	20-130	50
Benzo(a)anthracene	ND	333	274	82	333	295	88	7	30-130	50
Benzo(a)pyrene	ND	333	287	86	333	304	91	6	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	311	93	0	40-130	50
Benzo(k)fluoranthene	ND	333	296	89	333	327	98	10	30-140	50
Benzo(g,h,i)perylene	ND	333	305	92	333	322	97	5	30-140	50
Chrysene	ND	333	265	80	333	286	86	8	30-140	50
Dibenzo(a,h)anthracene	ND	333	312	94	333	329	99	5	40-140	50
Fluoranthene	ND	333	286	86	333	300	90	5	30-130	50
Fluorene	ND	333	289	87	333	288	86	1	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	314	94	333	333	100	6	20-160	50
Naphthalene	ND	333	247	74	333	248	74	1	10-130	50
Phenanthrene	ND	333	267	80	333	273	82	2	20-130	50
Pyrene	ND	333	274	82	333	289	87	5	20-150	50
2-Methylnaphthalene	ND	333	270	81	333	269	81	0	30-150	50
1-Methylnaphthalene	ND	333	271	81	333	270	81	0	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	293	88	333	314	94	7	30-130	50
Butylbenzylphthalate	ND	333	278	83	333	298	89	7	30-150	50
Di-n-butylphthalate	ND	333	288	86	333	302	91	5	10-150	50
Di-n-octylphthalate	ND	333	291	87	333	305	91	5	20-150	50
Diethylphthalate	ND	333	309	93	333	310	93	0	30-150	50
Dimethylphthalate	ND	333	301	90	333	299	90	1	30-150	50
N-Nitrosodimethylamine	ND	333	234	70	333	236	71	1	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	271	81	333	262	79	40-130
2-Fluorobiphenyl	333	254	76	333	243	73	45-130
Terphenyl-d14	333	293	88	333	300	90	45-135

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:27
Sample ID: SL-325-SA6-SB-22.0	Date Analyzed: 02/22/12 18:27
Lab Samp ID: B174-01I	Dilution Factor: 86
Lab File ID: EB21047A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : 27.0
Calib. Ref.: EB21044A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	1500	120	59

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	DO	235.6	DO	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47
DO: Diluted out.

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 17:45
Sample ID: SL-325-SA6-SB-26.5	Date Analyzed: 02/22/12 17:45
Lab Samp ID: B174-03	Dilution Factor: 0.9
Lab File ID: EB21046A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : 7.9
Calib. Ref.: EB21044A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	22	0.98	0.49

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.51	1.954	77.4	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 19:50
Sample ID: SL-326-SA6-SB-23.5	Date Analyzed: 02/22/12 19:50
Lab Samp ID: B174-05	Dilution Factor: 0.91
Lab File ID: EB21049A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : 6.3
Calib. Ref.: EB21044A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.97	0.49

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.33	1.942	68.6	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 13:34
Sample ID: MBLK1S	Date Analyzed: 02/22/12 13:34
Lab Samp ID: GMB009SB	Dilution Factor: 1
Lab File ID: EB21040A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.79	2.000	89.7	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB009SB	GMB009SL	GMB009SC		
LAB FILE ID:	EB21040A	EB21041A	EB21042A		
DATE EXTRACTED:	02/22/1213:34	02/22/1214:15	02/22/1214:57	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1213:34	02/22/1214:15	02/22/1214:57	DATE RECEIVED:	02/22/12
PREP. BATCH:	GMB009S	GMB009S	GMB009S		
CALIB. REF:	EB21033A	EB21033A	EB21033A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	24.7	99	25.0	22.7	91	8	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	2.09	105	2.00	1.93	96	60-130

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 10:46
Sample ID: TB-021712	Date Analyzed: 02/22/12 10:46
Lab Samp ID: B174-07	Dilution Factor: 1
Lab File ID: EB21036A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	41J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	34.1	40.00	85.1	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 10:20
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/22/12 12:40
Lab Samp ID: B174-02	Dilution Factor: 1
Lab File ID: BB22008A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 22.6
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	650	320
ISOPROPANOL	ND	650	320
METHANOL	590J	650	320

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 10:20
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/22/12 12:58
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: BB22009A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 8.3
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	550	270
ISOPROPANOL	ND	550	270
METHANOL	ND	550	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 10:20
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 13:17
Lab Samp ID: B174-06	Dilution Factor: 1
Lab File ID: BB22010A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 7.0
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	540	270
ISOPROPANOL	ND	540	270
METHANOL	ND	540	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 10:20
Sample ID: MBLK1S	Date Analyzed: 02/22/12 11:37
Lab Samp ID: MEB004SB	Dilution Factor: 1
Lab File ID: BB22005A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : NA
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB004SB	MEB004SL	MEB004SC		
LAB FILE ID:	BB22005A	BB22006A	BB22007A		
DATE EXTRACTED:	02/22/1210:20	02/22/1210:20	02/22/1210:20	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1211:37	02/22/1211:55	02/22/1212:21	DATE RECEIVED:	02/22/12
PREP. BATCH:	MEB004S	MEB004S	MEB004S		
CALIB. REF:	BB22004A	BB22004A	BB22004A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9670	97	10000	9800	98	1	50-150	50
Isopropanol	ND	10000	10700	107	10000	11600	116	8	50-150	50
Methanol	ND	10000	9300	93	10000	10900	109	15	50-150	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/17/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/17/12
Batch No.	: 12B174	Date Extracted	: 02/21/12 13:25
Sample ID	: SL-325-SA6-SB-22.5-23.5	Date Analyzed	: 02/21/12 16:04
Lab Samp ID	: B174-02	Dilution Factor	: 1
Lab File ID	: BB21017A	Matrix	: SOIL
Ext Btch ID	: PEB004S	% Moisture	: 22.6
Calib. Ref.	: BB21016A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	19	9.7
ETHYLENE GLYCOL	ND	13	6.5
PROPYLENE GLYCOL	ND	13	6.5

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/21/12 13:25
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/21/12 16:48
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: BB21018A	Matrix : SOIL
Ext Btch ID: PEB004S	% Moisture : 8.3
Calib. Ref.: BB21016A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.2
ETHYLENE GLYCOL	ND	11	5.5
PROPYLENE GLYCOL	ND	11	5.5

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/21/12 13:25
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/21/12 17:02
Lab Samp ID: B174-06	Dilution Factor: 1
Lab File ID: BB21019A	Matrix : SOIL
Ext Btch ID: PEB004S	% Moisture : 7.0
Calib. Ref.: BB21016A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.1
ETHYLENE GLYCOL	ND	11	5.4
PROPYLENE GLYCOL	ND	11	5.4

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B174	Date Extracted: 02/21/12 13:25
Sample ID: MBLK1S	Date Analyzed: 02/21/12 14:18
Lab Samp ID: PEB004SB	Dilution Factor: 1
Lab File ID: BB21012A	Matrix : SOIL
Ext Btch ID: PEB004S	% Moisture : NA
Calib. Ref.: BB21003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 8015M

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB004SB	PEB004SL	PEB004SC		
LAB FILE ID:	BB21012A	BB21013A	BB21014A		
DATE EXTRACTED:	02/21/1213:25	02/21/1213:25	02/21/1213:25	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:18	02/21/1214:32	02/21/1215:01	DATE RECEIVED:	02/21/12
PREP. BATCH:	PEB004S	PEB004S	PEB004S		
CALIB. REF:	BB21003A	BB21003A	BB21003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	48.6	97	50.0	52.7	105	8	50-150	50
Ethylene Glycol	ND	50.0	53.3	107	50.0	54.2	108	2	50-150	50
Propylene Glycol	ND	25.0	19.1	76	25.0	20.9	84	9	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 12:31
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/24/12 16:03
Lab Samp ID: B174-02I	Dilution Factor: 100
Lab File ID: LB24018A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 22.6
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	470	130	65
EFH(C12-C14)	9200	130	65
EFH(C15-C20)	6800	130	65
EFH(C21-C30)	410	130	65
EFH(C30-C40)	130J	130	65
TOTAL EFH(C8-C40)	17000	130	65

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	DO	12.92	DO	50-150
HEXACOSANE	DO	3.230	DO	50-150

RL : Reporting Limit
DO: Diluted out.

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 12:31
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/24/12 15:46
Lab Samp ID: B174-04I	Dilution Factor: 5
Lab File ID: LB24017A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 8.3
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	3.1J	5.5	2.7
EFH(C12-C14)	180	5.5	2.7
EFH(C15-C20)	220	5.5	2.7
EFH(C21-C30)	7.2	5.5	2.7
EFH(C30-C40)	ND	5.5	2.7
TOTAL EFH(C8-C40)	410	5.5	2.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.02	10.91	64.4	50-150
HEXACOSANE	2.83	2.726	104	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 12:31
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/24/12 15:29
Lab Samp ID: B174-06W	Dilution Factor: 1
Lab File ID: LB24016A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 7.0
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	2.2	1.1	0.54
EFH(C12-C14)	0.94J	1.1	0.54
EFH(C15-C20)	2.9	1.1	0.54
EFH(C21-C30)	14	1.1	0.54
EFH(C30-C40)	7.0	1.1	0.54
TOTAL EFH(C8-C40)	27	1.1	0.54

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	5.73	10.75	53.3	50-150
HEXACOSANE	2.32	2.688	86.4	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B174	Date Extracted: 02/23/12 12:31
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:02
Lab Samp ID: DSB026SB	Dilution Factor: 1
Lab File ID: LB23010A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : NA
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.59	10.00	75.9	50-150
HEXACOSANE	2.31	2.500	92.4	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB026SB	DSB026SL	DSB026SC		
LAB FILE ID:	LB23010A	LB23008A	LB23009A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:02	02/23/1216:28	02/23/1216:45	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23002A	LB23002A	LB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	50.0	45.0	90	50.0	53.7	107	18	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	8.02	80	10.0	8.50	85	50-150
Hexacosane	2.50	2.29	91	2.50	2.35	94	50-150

METHOD 3550B/8082
PCBs

Client	: CDM	Date Collected	: 02/17/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/17/12
Batch No.	: 12B174	Date Extracted	: 02/23/12 15:29
Sample ID	: SL-325-SA6-SB-22.5-23.5	Date Analyzed	: 02/27/12 21:50
Lab Samp ID	: B174-02	Dilution Factor	: 1
Lab File ID	: KB27029A	Matrix	: SOIL
Ext Btch ID	: CPB043S	% Moisture	: 22.6
Calib. Ref.	: KB27022A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	2.2	1.1|1.1
AROCLOR 1221	(ND)|ND	2.2	1.1|1.1
AROCLOR 1232	(ND)|ND	2.2	1.1|1.1
AROCLOR 1242	(ND)|ND	2.2	1.1|1.1
AROCLOR 1248	(ND)|ND	2.2	1.1|1.1
AROCLOR 1254	58|(33)	2.2	1.1|1.1
AROCLOR 1260	(ND)|ND	2.2	1.1|1.1
AROCLOR 1262	(ND)|ND	2.2	1.1|1.1
AROCLOR 1268	(ND)|ND	2.2	1.1|1.1
AROCLOR 5432	(ND)|ND	4.3	2.2|2.2
AROCLOR 5442	(ND)|ND	4.3	2.2|2.2
AROCLOR 5460	7.1|(6.4)	4.3	2.2|2.2

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(7.098)|3.680	6.890	(103)|53.4	45-120
TETRACHLORO-M-XYLENE	(6.989)|4.288	6.890	(101)|62.2	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 15:29
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/24/12 23:15
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: KB24023A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : 8.3
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.9	0.93|0.93
AROCLOR 1221	(ND)|ND	1.9	0.93|0.93
AROCLOR 1232	(ND)|ND	1.9	0.93|0.93
AROCLOR 1242	(ND)|ND	1.9	0.93|0.93
AROCLOR 1248	(ND)|ND	1.9	0.93|0.93
AROCLOR 1254	(ND)|ND	1.9	0.93|0.93
AROCLOR 1260	(ND)|ND	1.9	0.93|0.93
AROCLOR 1262	(ND)|ND	1.9	0.93|0.93
AROCLOR 1268	(ND)|ND	1.9	0.93|0.93
AROCLOR 5432	(ND)|ND	3.6	1.9|1.9
AROCLOR 5442	(ND)|ND	3.6	1.9|1.9
AROCLOR 5460	(ND)|ND	3.6	1.9|1.9

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.645)|4.025	5.816	(97.1)|69.2	45-120
TETRACHLORO-M-XYLENE	(5.118)|2.997	5.816	(88.0)|51.5	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/23/12 15:29
Sample ID: SL-326-SA6-SB-23.0-24.0	Date Analyzed: 02/25/12 00:10
Lab Samp ID: B174-06	Dilution Factor: 1
Lab File ID: KB24024A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : 7.0
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.8	0.91|0.91
AROCLOR 1221	(ND)|ND	1.8	0.91|0.91
AROCLOR 1232	(ND)|ND	1.8	0.91|0.91
AROCLOR 1242	(ND)|ND	1.8	0.91|0.91
AROCLOR 1248	(ND)|ND	1.8	0.91|0.91
AROCLOR 1254	(3.9)|3.8	1.8	0.91|0.91
AROCLOR 1260	(ND)|ND	1.8	0.91|0.91
AROCLOR 1262	(ND)|ND	1.8	0.91|0.91
AROCLOR 1268	(ND)|ND	1.8	0.91|0.91
AROCLOR 5432	(ND)|ND	3.5	1.8|1.8
AROCLOR 5442	(ND)|ND	3.5	1.8|1.8
AROCLOR 5460	3.2J|(2.5J)	3.5	1.8|1.8

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.842)|3.968	5.734	(102)|69.2	45-120
TETRACHLORO-M-XYLENE	(6.156)|3.867	5.734	(107)|67.4	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B174	Date Extracted: 02/23/12 15:29
Sample ID: MBLK1S	Date Analyzed: 02/27/12 19:04
Lab Samp ID: 60B043SQ	Dilution Factor: 1
Lab File ID: KB27026A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB27022A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.861)|4.265	5.333	(110)|80.0	45-120
TETRACHLORO-M-XYLENE	(5.771)|4.444	5.333	(108)|83.3	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B043SQ	60B043SX	60B043SY		
LAB FILE ID:	KB27026A	KB27027A	KB27028A		
DATE EXTRACTED:	02/23/1215:29	02/23/1215:29	02/23/1215:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/27/1219:04	02/27/1220:00	02/27/1220:55	DATE RECEIVED:	02/23/12
PREP. BATCH:	CPB043S	CPB043S	CPB043S		
CALIB. REF:	KB27022A	KB27022A	KB27022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(66.6)|57.3	(100)|86	66.7	(62.8)|54.6	(94)|82	(6)|5	50-130	50
Aroclor 1260	(ND)|ND	66.7	(74.3)|56.1	(111)|84	66.7	(74.1)|55.1	(111)|83	(0)|2	60-150	50
Aroclor 5460	(ND)|ND	66.7	(56.1)|47.6	(84)|71	66.7	(54.6)|46.3	(82)|69	(3)|3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.953)|4.362	(112)|81.8	5.333	(5.942)|4.356	(111)|81.7	45-120
Tetrachloro-m-xylene	5.333	(5.936)|4.775	(111)|89.5	5.333	(5.853)|4.601	(110)|86.3	10-160

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/24/12 01:38
Lab Samp ID: B174-02	Dilution Factor: 1
Lab File ID: PB23027A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2000	2000	100	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/24/12 02:20
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: PB23028A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23020A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	1840	2000	91.8	65-135

Note: All positive results are confirmed by C-18 column

METHOD 8330A
EXPLOSIVES

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:11
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB23015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB23009A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	100	50
RDX	ND	100	50
1,3,5-TRINITROBENZENE	ND	100	50
1,3-DINITROBENZENE	ND	100	50
TETRYL	ND	100	50
NITROBENZENE	ND	100	50
2,4,6-TRINITROTOLUENE	ND	100	50
4-AMINO-2,6-DINITROTOLUENE	ND	100	50
2-AMINO-4,6-DINITROTOLUENE	ND	100	50
2,6-DINITROTOLUENE	ND	100	50
2,4-DINITROTOLUENE	ND	100	50
2-NITROTOLUENE	ND	100	50
3-NITROTOLUENE	ND	100	50
4-NITROTOLUENE	ND	100	50
2,4-DIAMINO-6-NITROTOLUENE	ND	200	100
2,6-DIAMINO-4-NITROTOLUENE	ND	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2150	2000	107	65-135

Note: All positive results are confirmed by C-18 column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 8330A

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SL	EXB010SC		
LAB FILE ID:	PB23015A	PB23016A	PB23017A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:11	02/23/1217:53	02/23/1218:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB23009A	PB23009A	PB23009A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2230	112	2000	2220	111	0	70-130	50
RDX	ND	2000	2120	106	2000	2120	106	0	70-130	50
1,3,5-Trinitrobenzene	ND	2000	2250	113	2000	2250	112	0	70-130	50
1,3-Dinitrobenzene	ND	2000	2040	102	2000	2060	103	1	70-130	50
Tetryl	ND	2000	1780	89	2000	1760	88	1	70-130	50
Nitrobenzene	ND	2000	2090	104	2000	2120	106	2	70-140	50
2,4,6-Trinitrotoluene	ND	2000	1870	93	2000	1960	98	5	70-130	50
4-Amino-2,6-Dinitrotoluene	ND	2000	2130	106	2000	2160	108	1	70-130	50
2-Amino-4,6-Dinitrotoluene	ND	2000	2280	114	2000	2250	113	1	70-130	50
2,6-Dinitrotoluene	ND	2000	2330	117	2000	2280	114	2	70-130	50
2,4-Dinitrotoluene	ND	2000	2150	108	2000	2110	105	2	70-130	50
2-Nitrotoluene	ND	2000	2150	108	2000	2180	109	1	70-130	50
3-Nitrotoluene	ND	2000	2110	106	2000	2100	105	0	70-130	50
4-Nitrotoluene	ND	2000	2110	105	2000	2080	104	1	70-140	50
2,4-Diamino-6-nitrotoluene	ND	2000	2000	100	2000	1960	98	2	30-150	50
2,6-Diamino-4-nitrotoluene	ND	2000	2060	103	2000	2030	101	2	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2120	106	2000	2190	109	65-135

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/24/12 12:42
Lab Samp ID: B174-02	Dilution Factor: 1
Lab File ID: PB24015A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24013A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2300	2000	115	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: SL-325-SA6-SB-26.0-27.0	Date Analyzed: 02/24/12 13:21
Lab Samp ID: B174-04	Dilution Factor: 1
Lab File ID: PB24016A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24013A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2380	2000	119	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8332
Nitroglycerin and PETN

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B174	Date Extracted: 02/22/12 18:07
Sample ID: MBLK1S	Date Analyzed: 02/24/12 09:48
Lab Samp ID: EXB010SB	Dilution Factor: 1
Lab File ID: PB24003A	Matrix : SOIL
Ext Btch ID: EXB010S	% Moisture : NA
Calib. Ref.: PB24002A	Instrument ID : T-017

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
NITROGLYCERIN	ND	1000	500
PETN	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DINITROBENZENE	2480	2000	124	65-135

RL: Reporting Limit

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: Method 8332

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXB010SB	EXB010SX	EXB010SY		
LAB FILE ID:	PB24003A	PB24004A	PB24005A		
DATE EXTRACTED:	02/22/1218:07	02/22/1218:07	02/22/1218:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1209:48	02/24/1210:02	02/24/1210:16	DATE RECEIVED:	02/22/12
PREP. BATCH:	EXB010S	EXB010S	EXB010S		
CALIB. REF:	PB24002A	PB24002A	PB24002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitroglycerin	ND	7500	7810	104	7500	7750	103	1	50-150	50
PETN	ND	7500	8030	107	7500	7820	104	3	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dinitrobenzene	2000	2430	121	2000	2350	117	65-135

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: 02/17/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/17/12
SDG NO. : 12B174	Date Extracted: 02/24/12 15:03
Sample ID: SL-325-SA6-SB-22.5-23.5	Date Analyzed: 02/24/12 21:27
Lab Samp ID: B174-02	Dilution Factor: 0.917
Lab File ID: 98B14078	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : 22.6
Calib. Ref.: 98B14075	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	9850	28.4	14.2
Antimony	0.292	0.237	0.118
Arsenic	14.8	0.474	0.237
Barium	115	0.474	0.237
Beryllium	0.272	0.118	0.0592
Boron	5.35J	5.92	2.96
Cadmium	0.398	0.118	0.0592
Calcium	47900	23.7	11.8
Chromium	10.8	0.474	0.237
Cobalt	15.3	0.118	0.0592
Copper	29.6	0.474	0.237
Iron	34300	23.7	11.8
Lead	633	0.237	0.118
Magnesium	5010	11.8	5.92
Manganese	242	0.592	0.296
Molybdenum	0.682	0.118	0.0592
Nickel	8.17	0.474	0.237
Potassium	1940	71.1	35.5
Selenium	ND	0.474	0.237
Silver	0.0974J	0.118	0.0592
Sodium	317	118	59.2
Strontium	73.5	0.592	0.296
Thallium	0.110J	0.118	0.0592
Tin	ND	11.8	5.92
Titanium	787	1.18	0.592
Vanadium	29.3	0.118	0.0592
Zinc	54.8	3.55	1.78
Lithium	6.53	2.37	1.18
Phosphorus	529	14.2	7.11
Zirconium	10.8	5.92	2.96

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/17/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/17/12
SDG NO.	: 12B174	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-325-SA6-SB-26.0-27.0	Date Analyzed	: 02/24/12 21:34
Lab Samp ID	: B174-04	Dilution Factor	: 0.995
Lab File ID	: 98B14079	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 8.3
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	10900	26.0	13.0
Antimony	ND	0.217	0.109
Arsenic	3.91	0.434	0.217
Barium	71.1	0.434	0.217
Beryllium	0.951	0.109	0.0543
Boron	ND	5.43	2.71
Cadmium	0.125	0.109	0.0543
Calcium	2920	21.7	10.9
Chromium	17.2	0.434	0.217
Cobalt	4.87	0.109	0.0543
Copper	5.70	0.434	0.217
Iron	19500	21.7	10.9
Lead	5.49	0.217	0.109
Magnesium	5560	10.9	5.43
Manganese	268	0.543	0.271
Molybdenum	1.01	0.109	0.0543
Nickel	9.22	0.434	0.217
Potassium	3060	65.1	32.6
Selenium	ND	0.434	0.217
Silver	ND	0.109	0.0543
Sodium	386	109	54.3
Strontium	10.3	0.543	0.271
Thallium	0.206	0.109	0.0543
Tin	ND	10.9	5.43
Titanium	791	1.09	0.543
Vanadium	26.7	0.109	0.0543
Zinc	49.7	3.26	1.63
Lithium	27.5	2.17	1.09
Phosphorus	356	13.0	6.51
Zirconium	ND	5.43	2.71

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/17/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/17/12
SDG NO.	: 12B174	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-326-SA6-SB-23.0-24.0	Date Analyzed	: 02/24/12 21:41
Lab Samp ID	: B174-06	Dilution Factor	: 0.935
Lab File ID	: 98B14080	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 7.0
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	8830	24.1	12.1
Antimony	0.112J	0.201	0.101
Arsenic	2.98	0.402	0.201
Barium	75.0	0.402	0.201
Beryllium	0.379	0.101	0.0503
Boron	ND	5.03	2.51
Cadmium	0.102	0.101	0.0503
Calcium	5220	20.1	10.1
Chromium	14.2	0.402	0.201
Cobalt	13.3	0.101	0.0503
Copper	9.48	0.402	0.201
Iron	18200	20.1	10.1
Lead	3.38	0.201	0.101
Magnesium	4350	10.1	5.03
Manganese	258	0.503	0.251
Molybdenum	0.781	0.101	0.0503
Nickel	7.69	0.402	0.201
Potassium	2890	60.3	30.2
Selenium	ND	0.402	0.201
Silver	ND	0.101	0.0503
Sodium	298	101	50.3
Strontium	18.6	0.503	0.251
Thallium	0.204	0.101	0.0503
Tin	ND	10.1	5.03
Titanium	857	1.01	0.503
Vanadium	25.7	0.101	0.0503
Zinc	50.1	3.02	1.51
Lithium	24.0	2.01	1.01
Phosphorus	376	12.1	6.03
Zirconium	ND	5.03	2.51

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B174	Date Extracted: 02/24/12 15:03
Sample ID: MBLK1S	Date Analyzed: 02/24/12 19:55
Lab Samp ID: IMB023SB	Dilution Factor: 1
Lab File ID: 98B14065	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : NA
Calib. Ref.: 98B14063	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B174
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IMB023SB IMB023SL IMB023SC
LAB FILE ID: 98B14065 98B14066 98B14067
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 02/24/1215:03 DATE COLLECTED: NA
DATIME ANALYZD: 02/24/1219:55 02/24/1220:02 02/24/1220:09 DATE RECEIVED: 02/24/12
PREP. BATCH: NA NA NA
CALIB. REF: 98B14063 98B14063 98B14063

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2550	102	2500	2630	105	3	80-120	20
Antimony	ND	25.0	24.9	100	25.0	24.9	99	0	80-120	20
Arsenic	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Barium	ND	25.0	24.6	98	25.0	24.6	98	0	80-120	20
Beryllium	ND	25.0	25.0	100	25.0	24.9	99	0	80-120	20
Boron	ND	25.0	25.3	101	25.0	25.1	100	1	80-120	20
Cadmium	ND	25.0	24.6	99	25.0	24.6	98	0	80-120	20
Calcium	ND	2500	2540	102	2500	2550	102	0	80-120	20
Chromium	ND	25.0	24.5	98	25.0	25.0	100	2	80-120	20
Cobalt	ND	25.0	24.6	98	25.0	24.9	100	1	80-120	20
Copper	ND	25.0	24.2	97	25.0	24.7	99	2	80-120	20
Iron	ND	2500	2590	104	2500	2630	105	1	80-120	20
Lead	ND	25.0	24.6	98	25.0	24.8	99	1	80-120	20
Magnesium	ND	2500	2530	101	2500	2580	103	2	80-120	20
Manganese	ND	25.0	24.8	99	25.0	25.1	100	1	80-120	20
Molybdenum	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	25.2	101	5	80-120	20
Potassium	ND	2500	2610	104	2500	2640	106	1	80-120	20
Selenium	ND	25.0	25.0	100	25.0	25.3	101	1	80-120	20
Silver	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Sodium	ND	2500	2470	99	2500	2460	98	1	80-120	20
Strontium	ND	25.0	25.6	102	25.0	25.4	102	1	80-120	20
Thallium	ND	25.0	24.9	100	25.0	25.2	101	1	80-120	20
Tin	ND	25.0	27.0	108	25.0	27.0	108	0	80-120	20
Titanium	ND	25.0	24.8	99	25.0	25.2	101	2	80-120	20
Vanadium	ND	25.0	24.6	98	25.0	25.0	100	2	80-120	20
Zinc	ND	50.0	47.4	95	50.0	47.8	96	1	80-120	20
Lithium	ND	25.0	25.3	101	25.0	25.3	101	0	80-120	20
Phosphorus	ND	250	244	97	250	249	100	2	80-120	20
Zirconium	ND	25.0	26.7	107	25.0	26.5	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B174
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.976 0.976
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03W B201-03A
LAB FILE ID: 98B17031 98B17030
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/29/1213:22 02/29/1213:18 DATE RECEIVED: 02/22/12
PREP. BATCH: NA NA
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	8530	2600	11000	96	75-125
Antimony	0.195J	26.0	25.2	96	75-125
Arsenic	3.17	26.0	26.9	91	75-125
Barium	76.7	26.0	101	93	75-125
Beryllium	0.358	26.0	24.8	94	75-125
Boron	30.0	26.0	53.7	91	75-125
Cadmium	0.165	26.0	24.9	95	75-125
Calcium	9560	2600	11900	90	75-125
Chromium	21.4	26.0	44.1	87	75-125
Cobalt	4.34	26.0	27.6	89	75-125
Copper	7.00	26.0	28.7	83	75-125
Iron	20000	2600	22200	85	75-125
Lead	52.5	26.0	75.7	89	75-125
Magnesium	3300	2600	5690	92	75-125
Manganese	302	26.0	324	84	75-125
Molybdenum	2.55	26.0	27.6	96	75-125
Nickel	8.49	26.0	30.5	85	75-125
Potassium	2680	2600	5200	97	75-125
Selenium	ND	26.0	24.6	94	75-125
Silver	ND	26.0	24.0	92	75-125
Sodium	374	2600	2760	92	75-125
Strontium	34.7	26.0	59.2	94	75-125
Thallium	0.230	26.0	24.9	95	75-125
Tin	ND	26.0	28.3	109	75-125
Titanium	831	26.0	857	100	75-125
Vanadium	28.7	26.0	52.0	89	75-125
Zinc	56.0	52.1	103	89	75-125
Lithium	18.3	26.0	43.0	95	75-125
Phosphorus	401	260	640	92	75-125
Zirconium	ND	26.0	28.3	109	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 0.976 4.88
SAMPLE ID: SL-187-SA7-SB- SL-187-SA7-SB-
EMAX SAMP ID: B201-03W B201-03J
LAB FILE ID: 98B17031 98B17035
DATE EXTRACTED: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/29/1213:22 02/29/1213:40 DATE RECEIVED: 02/22/12
PREP. BATCH: IMB023S IMB023S
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	8530	8920	5	10
Antimony	0.195J	ND	NA	10
Arsenic	3.17	3.31	4	10
Barium	76.7	72.1	6	10
Beryllium	0.358	0.364J	2	10
Boron	30.0	29.3	2	10
Cadmium	0.165	ND	NA	10
Calcium	9560	9930	4	10
Chromium	21.4	21.9	2	10
Cobalt	4.34	4.54	5	10
Copper	7.00	7.43	6	10
Iron	20000	21100	5	10
Lead	52.5	52.6	0	10
Magnesium	3300	3450	5	10
Manganese	302	322	7	10
Molybdenum	2.55	2.44	4	10
Nickel	8.49	8.78	3	10
Potassium	2680	2680	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	374	323J	NA	10
Strontium	34.7	34.1	2	10
Thallium	0.230	ND	NA	10
Tin	ND	ND	0	10
Titanium	831	842	1	10
Vanadium	28.7	29.2	2	10
Zinc	56.0	58.0	3	10
Lithium	18.3	16.6	9	10
Phosphorus	401	385	4	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB020SB	ND	1	NA	0.100	0.0500	02/23/1217:58	02/23/1213:20	M47B016040	M47B016032	HGB020S	NA	02/23/12
LCS1S	HGB020SL	0.893	1	NA	0.100	0.0500	02/23/1218:00	02/23/1213:20	M47B016041	M47B016032	HGB020S	NA	02/23/12
LCD1S	HGB020SC	0.895	1	NA	0.100	0.0500	02/23/1218:03	02/23/1213:20	M47B016042	M47B016032	HGB020S	NA	02/23/12
SL-325-SA6-SB-22.5-23.5AS	B174-02A	1.22	0.993	22.6	0.128	0.0641	02/23/1218:05	02/23/1213:20	M47B016043	M47B016032	HGB020S	02/17/12	02/17/12
SL-325-SA6-SB-22.5-23.5	B174-02	0.107J	0.993	22.6	0.128	0.0641	02/23/1218:12	02/23/1213:20	M47B016046	M47B016044	HGB020S	02/17/12	02/17/12
SL-325-SA6-SB-22.5-23.5DL	B174-02J	ND	4.97	22.6	0.642	0.321	02/23/1218:14	02/23/1213:20	M47B016047	M47B016044	HGB020S	02/17/12	02/17/12
SL-325-SA6-SB-22.5-23.5MS	B174-02M	1.26	1.00	22.6	0.129	0.0646	02/23/1218:16	02/23/1213:20	M47B016048	M47B016044	HGB020S	02/17/12	02/17/12
SL-325-SA6-SB-22.5-23.5MSD	B174-02S	1.29	0.987	22.6	0.128	0.0638	02/23/1218:18	02/23/1213:20	M47B016049	M47B016044	HGB020S	02/17/12	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	0.987	8.3	0.108	0.0538	02/23/1218:20	02/23/1213:20	M47B016050	M47B016044	HGB020S	02/17/12	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06	ND	0.997	7.0	0.107	0.0536	02/23/1218:22	02/23/1213:20	M47B016051	M47B016044	HGB020S	02/17/12	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B174
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB020SB	HGB020SL	HGB020SC		
LAB FILE ID:	M47B016040	M47B016041	M47B016042		
DATIME EXTRCTD:	02/23/1213:20	02/23/1213:20	02/23/1213:20	DATE COLLECTED:	NA
DATIME ANALYZD:	02/23/1217:58	02/23/1218:00	02/23/1218:03	DATE RECEIVED:	02/23/12
PREP. BATCH:	HGB020S	HGB020S	HGB020S		
CALIB. REF:	M47B016032	M47B016032	M47B016032		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.893	107	.833	.895	107	0	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B174
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 22.6

DILTN FACTR:	0.993	1.00	0.987		
SAMPLE ID:	SL-325-SA6-SB-22.5-23.5				
CONTROL NO.:	B174-02	B174-02M	B174-02S		
LAB FILE ID:	M47B016046	M47B016048	M47B016049		
DATIME EXTRCTD:	02/23/1213:20	02/23/1213:20	02/23/1213:20	DATE COLLECTED:	02/17/12
DATIME ANALYZD:	02/23/1218:12	02/23/1218:16	02/23/1218:18	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB020S	HGB020S	HGB020S		
CALIB. REF:	M47B016044	M47B016044	M47B016044		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	.107J	1.08	1.26	107	1.06	1.29	111	4	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B174
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	22.6
DILTN FACTR:	0.993	0.993		
SAMPLE ID:	SL-325-SA6-SB-22.5-23.5			
CONTROL NO.:	B174-02	B174-02A		
LAB FILE ID:	M47B016046	M47B016043		
DATIME EXTRCTD:	02/23/1213:20	02/23/1213:20	DATE COLLECTED:	02/17/12
DATIME ANALYZD:	02/23/1218:12	02/23/1218:05	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB020S	HGB020S		
CALIB. REF:	M47B016044	M47B016032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	.107J	1.07	1.22	104	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 22.6
DILUTION FACTOR: 0.993 4.97
SAMPLE ID: SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-22.5-2.3
EMAX SAMP ID: B174-02 B174-02J
LAB FILE ID: M47B016046 M47B016047
DATE EXTRACTED: 02/23/1213:20 02/23/1213:20 DATE COLLECTED: 02/17/12
DATE ANALYZED: 02/23/1218:12 02/23/1218:14 DATE RECEIVED: 02/17/12
PREP. BATCH: HGB020S HGB020S
CALIB. REF: M47B016044 M47B016044

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	0.107J	ND	NA	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB004SB	ND	1	NA	1.00	0.500	02/21/1214:22	02/21/1212:07	AB27-13	AB27-11	ICB004S	NA	02/21/12
LCS1S	ICB004SL	5.85	1	NA	1.00	0.500	02/21/1214:38	02/21/1212:07	AB27-14	AB27-11	ICB004S	NA	02/21/12
LCD1S	ICB004SC	5.87	1	NA	1.00	0.500	02/21/1214:54	02/21/1212:07	AB27-15	AB27-11	ICB004S	NA	02/21/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	1.29	0.646	02/21/1215:10	02/21/1212:07	AB27-16	AB27-11	ICB004S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	6.00	1	8.3	1.09	0.545	02/21/1215:26	02/21/1212:07	AB27-17	AB27-11	ICB004S	02/17/1212:20	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06	0.624J	1	7.0	1.08	0.538	02/21/1215:43	02/21/1212:07	AB27-18	AB27-11	ICB004S	02/17/1208:55	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB004SB	ICB004SL	ICB004SC		
LAB FILE ID:	AB27-13	AB27-14	AB27-15		
DATE EXTRACTED:	02/21/1212:07	02/21/1212:07	02/21/1212:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:22	02/21/1214:38	02/21/1214:54	DATE RECEIVED:	02/21/12
PREP. BATCH:	ICB004S	ICB004S	ICB004S		
CALIB. REF:	AB27-11	AB27-11	AB27-11		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.85	98	6.00	5.87	98	0	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB004SB	ND	1	NA	1.50	0.750	02/21/1214:22	02/21/1212:07	AB27-13	AB27-11	ICB004S	NA	02/21/12
LCS1S	ICB004SL	19.1	1	NA	1.50	0.750	02/21/1214:38	02/21/1212:07	AB27-14	AB27-11	ICB004S	NA	02/21/12
LCD1S	ICB004SC	19.1	1	NA	1.50	0.750	02/21/1214:54	02/21/1212:07	AB27-15	AB27-11	ICB004S	NA	02/21/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	1.94	0.969	02/21/1215:10	02/21/1212:07	AB27-16	AB27-11	ICB004S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	1	8.3	1.64	0.818	02/21/1215:26	02/21/1212:07	AB27-17	AB27-11	ICB004S	02/17/1212:20	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB004SB	ICB004SL	ICB004SC		
LAB FILE ID:	AB27-13	AB27-14	AB27-15		
DATE EXTRACTED:	02/21/1212:07	02/21/1212:07	02/21/1212:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:22	02/21/1214:38	02/21/1214:54	DATE RECEIVED:	02/21/12
PREP. BATCH:	ICB004S	ICB004S	ICB004S		
CALIB. REF:	AB27-11	AB27-11	AB27-11		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.1	97	19.7	19.1	97	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB004SB	ND	1	NA	1.50	0.750	02/21/1214:22	02/21/1212:07	AB27-13	AB27-11	ICB004S	NA	02/21/12
LCS1S	ICB004SL	26.0	1	NA	1.50	0.750	02/21/1214:38	02/21/1212:07	AB27-14	AB27-11	ICB004S	NA	02/21/12
LCD1S	ICB004SC	26.0	1	NA	1.50	0.750	02/21/1214:54	02/21/1212:07	AB27-15	AB27-11	ICB004S	NA	02/21/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	1.94	0.969	02/21/1215:10	02/21/1212:07	AB27-16	AB27-11	ICB004S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	1	8.3	1.64	0.818	02/21/1215:26	02/21/1212:07	AB27-17	AB27-11	ICB004S	02/17/1212:20	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB004SB	ICB004SL	ICB004SC		
LAB FILE ID:	AB27-13	AB27-14	AB27-15		
DATE EXTRACTED:	02/21/1212:07	02/21/1212:07	02/21/1212:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:22	02/21/1214:38	02/21/1214:54	DATE RECEIVED:	02/21/12
PREP. BATCH:	ICB004S	ICB004S	ICB004S		
CALIB. REF:	AB27-11	AB27-11	AB27-11		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.0	98	26.6	26.0	98	0	90-110	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB005SB	ND	1	NA	20.0	10.0	02/23/1216:15	02/23/1214:30	JB23003	JB23002	PCB005S	NA	02/23/12
LCS1S	PCB005SL	247	1	NA	20.0	10.0	02/23/1216:57	02/23/1214:30	JB23005	JB23002	PCB005S	NA	02/23/12
LCD1S	PCB005SC	252	1	NA	20.0	10.0	02/23/1217:18	02/23/1214:30	JB23006	JB23002	PCB005S	NA	02/23/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	25.8	12.9	02/23/1217:48	02/23/1214:30	JB23007	JB23002	PCB005S	02/17/1211:45	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06	ND	1	7.0	21.5	10.8	02/23/1218:30	02/23/1214:30	JB23009	JB23002	PCB005S	02/17/1208:55	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	1	8.3	21.8	10.9	02/24/1212:44	02/23/1214:30	JB24006	JB24001	PCB005S	02/17/1212:20	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB005SB	PCB005SL	PCB005SC		
LAB FILE ID:	JB23003	JB23005	JB23006		
DATE EXTRACTED:	02/23/1214:30	02/23/1214:30	02/23/1214:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1216:15	02/23/1216:57	02/23/1217:18	DATE RECEIVED:	02/23/12
PREP. BATCH:	PCB005S	PCB005S	PCB005S		
CALIB. REF:	JB23002	JB23002	JB23002		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	247	99	250	252	101	2	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB003SB	ND	1	NA	1.00	0.500	02/24/1210:50	02/23/1214:07	IB24003	IB24001	HCB003S	NA	02/23/12
MBLK1S	HCB003SQ	ND	1	NA	1.00	0.500	02/24/1211:00	02/23/1214:07	IB24004	IB24001	HCB003S	NA	02/23/12
LCS1S	CSB003SL	8.61	1	NA	1.00	0.500	02/24/1211:21	02/23/1214:07	IB24005	IB24001	CSB003S	NA	02/23/12
LCS1S	CSB003SX	9.61	1	NA	1.00	0.500	02/24/1211:31	02/23/1214:07	IB24006	IB24001	CSB003S	NA	02/23/12
LCS2S	CIB003SL	194	20	NA	20.0	10.0	02/24/1211:42	02/23/1214:07	IB24007	IB24001	CIB003S	NA	02/23/12
LCS2S	CIB003SX	200	20	NA	20.0	10.0	02/24/1211:52	02/23/1214:07	IB24008	IB24001	CIB003S	NA	02/23/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	1.29	0.646	02/24/1220:38	02/23/1214:07	IB24041	IB24031	HCB003S	02/17/1211:45	02/17/12
SL-325-SA6-SB-22.5-23.5	B174-02R	ND	1	22.6	1.29	0.646	02/24/1220:48	02/23/1214:07	IB24042	IB24031	HCB003S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	1	8.3	1.09	0.545	02/24/1221:19	02/23/1214:07	IB24045	IB24043	HCB003S	02/17/1212:20	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04R	ND	1	8.3	1.09	0.545	02/24/1221:30	02/23/1214:07	IB24046	IB24043	HCB003S	02/17/1212:20	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06	ND	1	7.0	1.08	0.538	02/24/1221:40	02/23/1214:07	IB24047	IB24043	HCB003S	02/17/1208:55	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06R	ND	1	7.0	1.08	0.538	02/24/1221:51	02/23/1214:07	IB24048	IB24043	HCB003S	02/17/1208:55	02/17/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SQ CIB003SX
LAB FILE ID: IB24004 IB24008
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1211:00 02/24/1211:52 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	200	85	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	20		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SB	CIB003SL		
LAB FILE ID:	IB24003	IB24007		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:50	02/24/1211:42	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CIB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	194	82	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SQ	CSB003SX		
LAB FILE ID:	IB24004	IB24006		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1211:00	02/24/1211:31	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	9.61	96	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B174
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SB	CSB003SL		
LAB FILE ID:	IB24003	IB24005		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:50	02/24/1211:21	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.62	86	80-120

METHOD 9010A/9014
TOTAL CYANIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CNB013SB	ND	1	NA	0.500	0.250	02/28/1217:38	02/28/1211:30	CNB01310	CNB01308	CNB013S	NA	02/28/12
LCS1S	CNB013SL	2.70	1	NA	0.500	0.250	02/28/1217:39	02/28/1211:30	CNB01311	CNB01308	CNB013S	NA	02/28/12
LCD1S	CNB013SC	2.65	1	NA	0.500	0.250	02/28/1217:39	02/28/1211:30	CNB01312	CNB01308	CNB013S	NA	02/28/12
SL-325-SA6-SB-22.5-23.5	B174-02	ND	1	22.6	0.646	0.323	02/28/1217:39	02/28/1211:30	CNB01313	CNB01308	CNB013S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	ND	1	8.3	0.545	0.273	02/28/1217:40	02/28/1211:30	CNB01314	CNB01308	CNB013S	02/17/1212:20	02/17/12
SL-325-SA6-SB-26.0-27.0DUP	B174-04D	ND	1	8.3	0.545	0.273	02/28/1217:40	02/28/1211:30	CNB01315	CNB01308	CNB013S	02/17/1212:20	02/17/12
SL-325-SA6-SB-26.0-27.0MS	B174-04M	2.59	1	8.3	0.545	0.273	02/28/1217:40	02/28/1211:30	CNB01316	CNB01308	CNB013S	02/17/1212:20	02/17/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B174
SAMPLE ID: LCS1S/LCD1S
CONTROL NO.: CNB013SL/C

DATE RECEIVED: 02/28/12
DATE EXTRACTED: 02/28/12 11:30
DATE ANALYZED: 02/28/12 17:39/17:39

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Cyanide	ND	2.50	2.70	108	2.50	2.65	106	2	85-125	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B174
SAMPLE ID: SL-325-SA6-SB-26.0-27.0MS
CONTROL NO.: B174-04M

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/28/12 11:30
DATE ANALYZED: 02/28/12 17:40

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Cyanide	ND	2.48	2.59	104	75-125

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9010A/9014
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B174 DATE RECEIVED: 02/17/12
SAMPLE ID: SL-325-SA6-SB-26.0-27.0DUP DATE EXTRACTED: 02/28/12 11:30
CONTROL NO.: B174-04D DATE ANALYZED: 02/28/12 17:40

ACCESSION:

PARAMETER	SAMPLE (mg/kg)	DUP. SAMPLE (mg/kg)	RPD (%)	RPD LIMIT (%)
Cyanide	ND	ND	0	20

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B174
Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-325-SA6-SB-22.5-23.5	B174-02	11.55	1	22.6	NA	NA	02/17/1218:37	02/17/1218:37	PHB027S01	PHB027S	PHB027S	02/17/1211:45	02/17/12
SL-325-SA6-SB-26.0-27.0	B174-04	10.17	1	8.3	NA	NA	02/17/1218:38	02/17/1218:37	PHB027S02	PHB027S	PHB027S	02/17/1212:20	02/17/12
SL-326-SA6-SB-23.0-24.0	B174-06	10.84	1	7.0	NA	NA	02/17/1218:39	02/17/1218:37	PHB027S03	PHB027S	PHB027S	02/17/1208:55	02/17/12
SL-326-SA6-SB-23.0-24.0DUP	B174-06D	10.84	1	7.0	NA	NA	02/17/1218:39	02/17/1218:37	PHB027S04	PHB027S	PHB027S	02/17/1208:55	02/17/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: 7.0

BATCH NO.: 12B174
SAMPLE ID: SL-326-SA6-SB-23.0-24.0DUP
CONTROL NO.: B174-06D

DATE RECEIVED: 02/17/12
DATE EXTRACTED: 02/17/12 18:37
DATE ANALYZED: 02/17/12 18:39

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	10.8	10.8	0	+/-0.1

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/22/12 12:09
Sample ID: SL-323-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 20:24
Lab Samp ID: B176-02	Dilution Factor: 1
Lab File ID: RBJ149	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 5.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	89
1,2-DICHLOROBENZENE	ND	180	89
1,3-DICHLOROBENZENE	ND	180	89
1,4-DICHLOROBENZENE	ND	180	89
2,4,5-TRICHLOROPHENOL	ND	180	89
2,4,6-TRICHLOROPHENOL	ND	180	89
2,4-DICHLOROPHENOL	ND	180	89
2,4-DIMETHYLPHENOL	ND	180	89
2,4-DINITROPHENOL	ND	350	180
2,4-DINITROTOLUENE	ND	180	89
2,6-DINITROTOLUENE	ND	180	89
2-CHLORONAPHTHALENE	ND	180	89
2-CHLOROPHENOL	ND	180	89
2-METHYLNAPHTHALENE	ND	180	89
2-METHYLPHENOL	ND	180	89
2-NITROANILINE	ND	180	89
2-NITROPHENOL	ND	180	89
3,3'-DICHLOROBENZIDINE	ND	180	89
3-NITROANILINE	ND	180	89
4,6-DINITRO-2-METHYLPHENOL	ND	350	180
4-BROMOPHENYL-PHENYLETHER	ND	180	89
4-CHLORO-3-METHYLPHENOL	ND	180	89
4-CHLOROANILINE	ND	180	89
4-CHLOROPHENYL-PHENYLETHER	ND	180	89
4-METHYLPHENOL (1)	ND	180	89
4-NITROANILINE	ND	180	89
4-NITROPHENOL	ND	350	180
ACENAPHTHENE	ND	180	89
ACENAPHTHYLENE	ND	180	89
ANTHRACENE	ND	180	89
BENZO(A)ANTHRACENE	ND	180	89
BENZO(A)PYRENE	ND	180	89
BENZO(B)FLUORANTHENE	ND	180	89
BENZO(K)FLUORANTHENE	ND	180	89
BENZO(G,H,I)PERYLENE	ND	180	89
BIS(2-CHLOROETHOXY)METHANE	ND	180	89
BIS(2-CHLOROETHYL)ETHER	ND	180	89
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	89
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	89
BUTYLBENZYLPHTHALATE	ND	180	89
CHRYSENE	ND	180	89
DI-N-BUTYLPHTHALATE	ND	180	89
DI-N-OCTYLPHTHALATE	ND	180	89
DIBENZO(A,H)ANTHRACENE	ND	180	89
DIBENZOFURAN	ND	180	89
DIETHYLPHTHALATE	ND	180	89
DIMETHYLPHTHALATE	ND	180	89
FLUORANTHENE	ND	180	89
FLUORENE	ND	180	89
HEXACHLOROBENZENE	ND	180	89
HEXACHLOROBUTADIENE	ND	180	89
HEXACHLOROCYCLOPENTADIENE	ND	180	89
HEXACHLOROETHANE	ND	180	89
INDENO(1,2,3-CD)PYRENE	ND	180	89
ISOPHORONE	ND	180	89
N-NITROSO-DI-N-PROPYLAMINE	ND	180	89
N-NITROSODIPHENYLAMINE (2)	ND	180	89
NAPHTHALENE	ND	180	89
NITROBENZENE	ND	180	89
PENTACHLOROPHENOL	ND	350	180
PHENANTHRENE	ND	180	89
PHENOL	ND	180	89
PYRENE	ND	180	89
BENZYL ALCOHOL	ND	180	89
1-METHYLNAPHTHALENE	ND	180	89
1,2-DIPHENYLHYDRAZINE	ND	180	89
3,5-DIMETHYLPHENOL	ND	180	89
ANILINE	ND	350	180
BENZIDINE	ND	880	440
BENZOIC ACID	ND	710	350
CARBAZOLE	ND	180	89
N-NITROSODIMETHYLAMINE	ND	180	89
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	612	1059	57.8	35-130
2-FLUOROBIPHENYL	211	353.1	59.8	45-130
2-FLUOROPHENOL	610	1059	57.6	25-130
NITROBENZENE-D5	200	353.1	56.6	40-130
PHENOL-D5	603	1059	56.9	25-120
TERPHENYL-D14	282	353.1	79.9	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B176	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	767	1000	76.7	35-130
2-FLUOROBIPHENYL	254	333.3	76.2	45-130
2-FLUOROPHENOL	718	1000	71.8	25-130
NITROBENZENE-D5	255	333.3	76.6	40-130
PHENOL-D5	716	1000	71.6	25-120
TERPHENYL-D14	313	333.3	94.0	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB028SB SVB028SL SVB028SC
LAB FILE ID: RBJ142 RBJ143 RBJ144
DATE EXTRACTED: 02/22/1212:09 02/22/1212:09 02/22/1212:09 DATE COLLECTED: NA
DATE ANALYZED: 02/22/1218:12 02/22/1218:31 02/22/1218:49 DATE RECEIVED: 02/22/12
PREP. BATCH: SVB028S SVB028S SVB028S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	479	72	667	439	66	9	30-130	50
1,2-Dichlorobenzene	ND	667	499	75	667	450	68	10	40-130	50
1,3-Dichlorobenzene	ND	667	492	74	667	445	67	10	40-130	50
1,4-Dichlorobenzene	ND	667	493	74	667	444	67	10	30-130	50
2,4,5-Trichlorophenol	ND	667	528	79	667	487	73	8	40-130	50
2,4,6-Trichlorophenol	ND	667	538	81	667	493	74	9	40-130	50
2,4-Dichlorophenol	ND	667	517	77	667	471	71	9	40-130	50
2,4-Dimethylphenol	ND	667	513	77	667	462	69	10	40-130	50
2,4-Dinitrophenol	ND	667	398	60	667	420	63	5	20-130	50
2,4-Dinitrotoluene	ND	667	577	87	667	588	88	2	30-130	50
2,6-Dinitrotoluene	ND	667	546	82	667	538	81	1	50-130	50
2-Chloronaphthalene	ND	667	548	82	667	509	76	7	50-130	50
2-Chlorophenol	ND	667	537	81	667	457	69	16	30-130	50
2-Methylnaphthalene	ND	667	545	82	667	502	75	8	40-130	50
2-Methylphenol	ND	667	516	77	667	461	69	11	40-130	50
2-Nitroaniline	ND	667	531	80	667	520	78	2	40-130	50
2-Nitrophenol	ND	667	534	80	667	488	73	9	40-130	50
3,3'-Dichlorobenzidine	ND	667	565	85	667	533	80	6	50-130	50
3-Nitroaniline	ND	667	487	73	667	513	77	5	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	560	84	667	558	84	0	40-160	50
4-Bromophenyl-phenylether	ND	667	570	86	667	531	80	7	40-140	50
4-Chloro-3-Methylphenol	ND	667	528	79	667	481	72	9	30-130	50
4-Chloroaniline	ND	667	458	69	667	416	62	10	40-130	50
4-Chlorophenyl-phenylether	ND	667	530	80	667	496	74	7	40-140	50
4-Methylphenol	ND	667	537	81	667	480	72	11	30-130	50
4-Nitroaniline	ND	667	587	88	667	554	83	6	50-130	50
4-Nitrophenol	ND	667	493	74	667	528	79	7	20-140	50
Acenaphthene	ND	667	534	80	667	493	74	8	30-130	50
Acenaphthylene	ND	667	542	81	667	508	76	6	30-130	50
Anthracene	ND	667	559	84	667	536	80	4	30-130	50
Benzo(a)anthracene	ND	667	612	92	667	573	86	7	40-130	50
Benzo(a)pyrene	ND	667	577	87	667	549	82	5	40-130	50
Benzo(b)fluoranthene	ND	667	620	93	667	593	89	4	40-140	50
Benzo(k)fluoranthene	ND	667	622	93	667	566	85	9	40-140	50
Benzo(g,h,i)perylene	ND	667	611	92	667	574	86	6	40-140	50
bis(2-Chloroethoxy)methane	ND	667	496	74	667	462	69	7	40-130	50
bis(2-Chloroethyl)ether	ND	667	500	75	667	460	69	8	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	533	80	667	449	67	17	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	676	101	667	634	95	6	40-150	50
Butylbenzylphthalate	ND	667	678	102	667	631	95	7	40-150	50
Chrysene	ND	667	631	95	667	585	88	8	40-140	50
Di-n-butylphthalate	ND	667	640	96	667	612	92	5	10-130	50
Di-n-octylphthalate	ND	667	679	102	667	634	95	7	20-140	50
Dibenzo(a,h)anthracene	ND	667	620	93	667	576	86	7	40-130	50
Dibenzofuran	ND	667	535	80	667	497	75	7	40-130	50
Diethylphthalate	ND	667	579	87	667	569	85	2	40-130	50
Dimethylphthalate	ND	667	575	86	667	545	82	5	40-130	50
Fluoranthene	ND	667	604	91	667	599	90	1	40-130	50

Fluorene	ND	667	547	82	667	524	79	4	30-130	50
Hexachlorobenzene	ND	667	591	89	667	560	84	5	30-130	50
Hexachlorobutadiene	ND	667	500	75	667	464	70	8	10-130	50
Hexachlorocyclopentadiene	ND	667	402	60	667	378	57	6	10-130	50
Hexachloroethane	ND	667	494	74	667	455	68	8	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	628	94	667	585	88	7	30-140	50
Isophorone	ND	667	546	82	667	498	75	9	40-130	50
n-Nitroso-di-n-propylamine	ND	667	510	77	667	467	70	9	30-130	50
n-Nitrosodiphenylamine	ND	667	445	67	667	416	62	7	30-140	50
Naphthalene	ND	667	518	78	667	481	72	7	30-130	50
Nitrobenzene	ND	667	541	81	667	505	76	7	40-130	50
Pentachlorophenol	ND	667	526	79	667	532	80	1	20-130	50
Phenanthrene	ND	667	580	87	667	559	84	4	30-130	50
Phenol	ND	667	508	76	667	464	70	9	30-130	50
Pyrene	ND	667	599	90	667	560	84	7	30-130	50
Benzyl Alcohol	ND	667	548	82	667	489	73	12	40-130	50
1-Methylnaphthalene	ND	667	545	82	667	499	75	9	30-150	50
1,2-Diphenylhydrazine	ND	667	571	86	667	524	79	9	30-130	50
3,5-Dimethylphenol	ND	667	599	90	667	536	80	11	20-150	50
Aniline	ND	667	370	55	667	334	50	10	20-150	50
Benzidine	ND	2670	1190	45	2670	1380	52	15	20-130	50
Benzoic Acid	ND	2670	770	29	2670	805	30	5	10-130	50
Carbazole	ND	667	581	87	667	578	87	1	40-130	50
N-Nitrosodimethylamine	ND	667	501	75	667	460	69	9	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	822	82	1000	809	81	35-130
2-Fluorobiphenyl	333	241	72	333	226	68	45-130
2-Fluorophenol	1000	678	68	1000	633	63	25-130
Nitrobenzene-d5	333	234	70	333	215	65	40-130
Phenol-d5	1000	710	71	1000	648	65	25-120
Terphenyl-d14	333	312	94	333	299	90	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/22/12 12:09
Sample ID: SL-323-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 20:24
Lab Samp ID: B176-02	Dilution Factor: 1
Lab File ID: RBJ149	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : 5.6
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.90
ACENAPHTHYLENE	ND	1.8	0.90
ANTHRACENE	ND	1.8	0.90
BENZO(A)ANTHRACENE	ND	1.8	0.90
BENZO(A)PYRENE	ND	1.8	0.90
BENZO(B)FLUORANTHENE	ND	1.8	0.90
BENZO(K)FLUORANTHENE	ND	1.8	0.90
BENZO(G,H,I)PERYLENE	ND	1.8	0.90
CHRYSENE	ND	1.8	0.90
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.90
FLUORANTHENE	1.1J	1.8	0.90
FLUORENE	ND	1.8	0.90
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.90
NAPHTHALENE	0.95J	1.8	0.90
PHENANTHRENE	ND	1.8	0.90
PYRENE	1.2J	1.8	0.90
2-METHYLNAPHTHALENE	ND	1.8	0.90
1-METHYLNAPHTHALENE	ND	1.8	0.90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	8.9
BUTYLBENZYLPHTHALATE	ND	18	8.9
DI-N-BUTYLPHTHALATE	ND	18	8.9
DI-N-OCTYLPHTHALATE	ND	18	8.9
DIETHYLPHTHALATE	ND	18	8.9
DIMETHYLPHTHALATE	ND	18	8.9
N-NITROSODIMETHYLAMINE	ND	1.8	0.90

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	215	353.1	61.0	40-130
2-FLUOROBIPHENYL	206	353.1	58.3	45-130
TERPHENYL-D14	282	353.1	80.0	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B176	Date Extracted: 02/22/12 12:09
Sample ID: MBLK1S	Date Analyzed: 02/22/12 18:12
Lab Samp ID: SVB028SB	Dilution Factor: 1
Lab File ID: RBJ142	Matrix : SOIL
Ext Btch ID: SVB028S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	264	333.3	79.2	40-130
2-FLUOROBIPHENYL	244	333.3	73.1	45-130
TERPHENYL-D14	325	333.3	97.5	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 3550B/8270C SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB028SB	SVB028SX	SVB028SY		
LAB FILE ID:	RBJ142	RBJ145	RBJ146		
DATE EXTRACTED:	02/22/1212:09	02/22/1212:09	02/22/1212:09	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1218:12	02/22/1219:08	02/22/1219:27	DATE RECEIVED:	02/22/12
PREP. BATCH:	SVB028S	SVB028S	SVB028S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	272	82	333	270	81	1	10-130	50
Acenaphthylene	ND	333	295	89	333	294	88	1	20-130	50
Anthracene	ND	333	266	80	333	270	81	2	20-130	50
Benzo(a)anthracene	ND	333	274	82	333	295	88	7	30-130	50
Benzo(a)pyrene	ND	333	287	86	333	304	91	6	30-130	50
Benzo(b)fluoranthene	ND	333	311	93	333	311	93	0	40-130	50
Benzo(k)fluoranthene	ND	333	296	89	333	327	98	10	30-140	50
Benzo(g,h,i)perylene	ND	333	305	92	333	322	97	5	30-140	50
Chrysene	ND	333	265	80	333	286	86	8	30-140	50
Dibenzo(a,h)anthracene	ND	333	312	94	333	329	99	5	40-140	50
Fluoranthene	ND	333	286	86	333	300	90	5	30-130	50
Fluorene	ND	333	289	87	333	288	86	1	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	314	94	333	333	100	6	20-160	50
Naphthalene	ND	333	247	74	333	248	74	1	10-130	50
Phenanthrene	ND	333	267	80	333	273	82	2	20-130	50
Pyrene	ND	333	274	82	333	289	87	5	20-150	50
2-Methylnaphthalene	ND	333	270	81	333	269	81	0	30-150	50
1-Methylnaphthalene	ND	333	271	81	333	270	81	0	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	293	88	333	314	94	7	30-130	50
Butylbenzylphthalate	ND	333	278	83	333	298	89	7	30-150	50
Di-n-butylphthalate	ND	333	288	86	333	302	91	5	10-150	50
Di-n-octylphthalate	ND	333	291	87	333	305	91	5	20-150	50
Diethylphthalate	ND	333	309	93	333	310	93	0	30-150	50
Dimethylphthalate	ND	333	301	90	333	299	90	1	30-150	50
N-Nitrosodimethylamine	ND	333	234	70	333	236	71	1	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	271	81	333	262	79	40-130
2-Fluorobiphenyl	333	254	76	333	243	73	45-130
Terphenyl-d14	333	293	88	333	300	90	45-135

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/22/12 15:39
Sample ID: SL-323-SA6-SB-23.5	Date Analyzed: 02/22/12 15:39
Lab Samp ID: B176-01	Dilution Factor: 0.99
Lab File ID: EB21043A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : 5.6
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.52

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.67	2.097	79.8	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B176	Date Extracted: 02/22/12 13:34
Sample ID: MBLK1S	Date Analyzed: 02/22/12 13:34
Lab Samp ID: GMB009SB	Dilution Factor: 1
Lab File ID: EB21040A	Matrix : SOIL
Ext Btch ID: GMB009S	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.79	2.000	89.7	60-130

RL : Reporting Limit
Methanol Extraction: 02/21/12 15:47

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB009SB	GMB009SL	GMB009SC		
LAB FILE ID:	EB21040A	EB21041A	EB21042A		
DATE EXTRACTED:	02/22/1213:34	02/22/1214:15	02/22/1214:57	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1213:34	02/22/1214:15	02/22/1214:57	DATE RECEIVED:	02/22/12
PREP. BATCH:	GMB009S	GMB009S	GMB009S		
CALIB. REF:	EB21033A	EB21033A	EB21033A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	24.7	99	25.0	22.7	91	8	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	2.09	105	2.00	1.93	96	60-130

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B176	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/22/12 11:28
Sample ID: TB-022012	Date Analyzed: 02/22/12 11:28
Lab Samp ID: B176-03	Dilution Factor: 1
Lab File ID: EB21037A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	49J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	35.8	40.00	89.4	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/22/12 10:20
Sample ID: SL-323-SA6-SB-23.0-24.0	Date Analyzed: 02/22/12 13:33
Lab Samp ID: B176-02	Dilution Factor: 1
Lab File ID: BB22011A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 5.6
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	530	260
ISOPROPANOL	ND	530	260
METHANOL	ND	530	260

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B176	Date Extracted: 02/22/12 10:20
Sample ID: MBLK1S	Date Analyzed: 02/22/12 11:37
Lab Samp ID: MEB004SB	Dilution Factor: 1
Lab File ID: BB22005A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : NA
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB004SB	MEB004SL	MEB004SC		
LAB FILE ID:	BB22005A	BB22006A	BB22007A		
DATE EXTRACTED:	02/22/1210:20	02/22/1210:20	02/22/1210:20	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1211:37	02/22/1211:55	02/22/1212:21	DATE RECEIVED:	02/22/12
PREP. BATCH:	MEB004S	MEB004S	MEB004S		
CALIB. REF:	BB22004A	BB22004A	BB22004A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9670	97	10000	9800	98	1	50-150	50
Isopropanol	ND	10000	10700	107	10000	11600	116	8	50-150	50
Methanol	ND	10000	9300	93	10000	10900	109	15	50-150	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/20/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
Batch No.	: 12B176	Date Extracted	: 02/21/12 13:25
Sample ID	: SL-323-SA6-SB-23.0-24.0	Date Analyzed	: 02/21/12 17:16
Lab Samp ID	: B176-02	Dilution Factor	: 1
Lab File ID	: BB21020A	Matrix	: SOIL
Ext Btch ID	: PEB004S	% Moisture	: 5.6
Calib. Ref.	: BB21016A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	7.9
ETHYLENE GLYCOL	ND	11	5.3
PROPYLENE GLYCOL	ND	11	5.3

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/21/12 13:25
Sample ID: MBLK1S	Date Analyzed: 02/21/12 14:18
Lab Samp ID: PEB004SB	Dilution Factor: 1
Lab File ID: BB21012A	Matrix : SOIL
Ext Btch ID: PEB004S	% Moisture : NA
Calib. Ref.: BB21003A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 8015M

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB004SB	PEB004SL	PEB004SC		
LAB FILE ID:	BB21012A	BB21013A	BB21014A		
DATE EXTRACTED:	02/21/1213:25	02/21/1213:25	02/21/1213:25	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:18	02/21/1214:32	02/21/1215:01	DATE RECEIVED:	02/21/12
PREP. BATCH:	PEB004S	PEB004S	PEB004S		
CALIB. REF:	BB21003A	BB21003A	BB21003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	48.6	97	50.0	52.7	105	8	50-150	50
Ethylene Glycol	ND	50.0	53.3	107	50.0	54.2	108	2	50-150	50
Propylene Glycol	ND	25.0	19.1	76	25.0	20.9	84	9	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/20/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B176	Date Extracted: 02/23/12 12:31
Sample ID: SL-323-SA6-SB-23.0-24.0	Date Analyzed: 02/24/12 15:13
Lab Samp ID: B176-02W	Dilution Factor: 1
Lab File ID: LB24015A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 5.6
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.1	0.53
EFH(C12-C14)	ND	1.1	0.53
EFH(C15-C20)	ND	1.1	0.53
EFH(C21-C30)	2.3	1.1	0.53
EFH(C30-C40)	1.5	1.1	0.53
TOTAL EFH(C8-C40)	3.8	1.1	0.53

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	6.53	10.59	61.7	50-150
HEXACOSANE	2.46	2.648	93.0	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B176	Date Extracted: 02/23/12 12:31
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:02
Lab Samp ID: DSB026SB	Dilution Factor: 1
Lab File ID: LB23010A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : NA
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.59	10.00	75.9	50-150
HEXACOSANE	2.31	2.500	92.4	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB026SB	DSB026SL	DSB026SC		
LAB FILE ID:	LB23010A	LB23008A	LB23009A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:02	02/23/1216:28	02/23/1216:45	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23002A	LB23002A	LB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	50.0	45.0	90	50.0	53.7	107	18	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	8.02	80	10.0	8.50	85	50-150
Hexacosane	2.50	2.29	91	2.50	2.35	94	50-150

METHOD 3550B/8082
PCBs

Client	: CDM	Date Collected	: 02/20/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
Batch No.	: 12B176	Date Extracted	: 02/23/12 15:29
Sample ID	: SL-323-SA6-SB-23.0-24.0	Date Analyzed	: 02/25/12 01:05
Lab Samp ID	: B176-02	Dilution Factor	: 5.6
Lab File ID	: KB24025A	Matrix	: SOIL
Ext Btch ID	: CPB043S	% Moisture	: NA
Calib. Ref.	: KB24012A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	9.5	4.8|4.8
AROCLOR 1221	(ND)|ND	9.5	4.8|4.8
AROCLOR 1232	(ND)|ND	9.5	4.8|4.8
AROCLOR 1242	(ND)|ND	9.5	4.8|4.8
AROCLOR 1248	(ND)|ND	9.5	4.8|4.8
AROCLOR 1254	(ND)|ND	9.5	4.8|4.8
AROCLOR 1260	(ND)|ND	9.5	4.8|4.8
AROCLOR 1262	(ND)|ND	9.5	4.8|4.8
AROCLOR 1268	(ND)|ND	9.5	4.8|4.8
AROCLOR 5432	(ND)|ND	18	9.5|9.5
AROCLOR 5442	(ND)|ND	18	9.5|9.5
AROCLOR 5460	(ND)|ND	18	9.5|9.5

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(31.06)|22.00	29.86	(104)|73.7	45-120
TETRACHLORO-M-XYLENE	(33.32)|22.64	29.86	(112)|75.8	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B176	Date Extracted: 02/23/12 15:29
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:43
Lab Samp ID: 60B043SQ	Dilution Factor: 1
Lab File ID: KB24017A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.918)|4.323	5.333	(111)|81.1	45-120
TETRACHLORO-M-XYLENE	(5.940)|4.476	5.333	(111)|83.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B043SQ	60B043SX	60B043SY		
LAB FILE ID:	KB24017A	KB24018A	KB24019A		
DATE EXTRACTED:	02/23/1215:29	02/23/1215:29	02/23/1215:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1217:43	02/24/1218:39	02/24/1219:34	DATE RECEIVED:	02/23/12
PREP. BATCH:	CPB043S	CPB043S	CPB043S		
CALIB. REF:	KB24012A	KB24012A	KB24012A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(66.9)|57.5	(100)|86	66.7	(62.7)|52.4	(94)|79	(6)|9	50-130	50
Aroclor 1260	(ND)|ND	66.7	(73.9)|55.8	(111)|84	66.7	(73.5)|55.0	(110)|82	(1)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(63.3)|53.5	(95)|80	66.7	(62.3)|52.8	(93)|79	(2)|1	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.880)|4.307	(110)|80.8	5.333	(5.911)|4.336	(111)|81.3	45-120
Tetrachloro-m-xylene	5.333	(5.964)|4.933	(112)|92.5	5.333	(5.889)|4.833	(110)|90.6	10-160

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/20/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
SDG NO.	: 12B176	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-323-SA6-SB-23.0-24.0	Date Analyzed	: 02/24/12 21:48
Lab Samp ID	: B176-02	Dilution Factor	: 0.893
Lab File ID	: 98B14081	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 5.6
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	10400	22.7	11.4
Antimony	0.114J	0.189	0.0946
Arsenic	3.18	0.378	0.189
Barium	95.2	0.378	0.189
Beryllium	0.470	0.0946	0.0473
Boron	ND	4.73	2.36
Cadmium	0.127	0.0946	0.0473
Calcium	8060	18.9	9.46
Chromium	14.4	0.378	0.189
Cobalt	4.70	0.0946	0.0473
Copper	5.80	0.378	0.189
Iron	19000	18.9	9.46
Lead	3.63	0.189	0.0946
Magnesium	5910	9.46	4.73
Manganese	258	0.473	0.236
Molybdenum	0.557	0.0946	0.0473
Nickel	7.49	0.378	0.189
Potassium	3820	56.8	28.4
Selenium	ND	0.378	0.189
Silver	ND	0.0946	0.0473
Sodium	721	94.6	47.3
Strontium	23.7	0.473	0.236
Thallium	0.235	0.0946	0.0473
Tin	ND	9.46	4.73
Titanium	1080	0.946	0.473
Vanadium	27.4	0.0946	0.0473
Zinc	57.4	2.84	1.42
Lithium	32.9	1.89	0.946
Phosphorus	349	11.4	5.68
Zirconium	ND	4.73	2.36

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B176	Date Extracted: 02/24/12 15:03
Sample ID: MBLK1S	Date Analyzed: 02/24/12 19:55
Lab Samp ID: IMB023SB	Dilution Factor: 1
Lab File ID: 98B14065	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : NA
Calib. Ref.: 98B14063	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B176
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IMB023SB IMB023SL IMB023SC
LAB FILE ID: 98B14065 98B14066 98B14067
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 02/24/1215:03 DATE COLLECTED: NA
DATIME ANALYZD: 02/24/1219:55 02/24/1220:02 02/24/1220:09 DATE RECEIVED: 02/24/12
PREP. BATCH: NA NA NA
CALIB. REF: 98B14063 98B14063 98B14063

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2550	102	2500	2630	105	3	80-120	20
Antimony	ND	25.0	24.9	100	25.0	24.9	99	0	80-120	20
Arsenic	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Barium	ND	25.0	24.6	98	25.0	24.6	98	0	80-120	20
Beryllium	ND	25.0	25.0	100	25.0	24.9	99	0	80-120	20
Boron	ND	25.0	25.3	101	25.0	25.1	100	1	80-120	20
Cadmium	ND	25.0	24.6	99	25.0	24.6	98	0	80-120	20
Calcium	ND	2500	2540	102	2500	2550	102	0	80-120	20
Chromium	ND	25.0	24.5	98	25.0	25.0	100	2	80-120	20
Cobalt	ND	25.0	24.6	98	25.0	24.9	100	1	80-120	20
Copper	ND	25.0	24.2	97	25.0	24.7	99	2	80-120	20
Iron	ND	2500	2590	104	2500	2630	105	1	80-120	20
Lead	ND	25.0	24.6	98	25.0	24.8	99	1	80-120	20
Magnesium	ND	2500	2530	101	2500	2580	103	2	80-120	20
Manganese	ND	25.0	24.8	99	25.0	25.1	100	1	80-120	20
Molybdenum	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	25.2	101	5	80-120	20
Potassium	ND	2500	2610	104	2500	2640	106	1	80-120	20
Selenium	ND	25.0	25.0	100	25.0	25.3	101	1	80-120	20
Silver	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Sodium	ND	2500	2470	99	2500	2460	98	1	80-120	20
Strontium	ND	25.0	25.6	102	25.0	25.4	102	1	80-120	20
Thallium	ND	25.0	24.9	100	25.0	25.2	101	1	80-120	20
Tin	ND	25.0	27.0	108	25.0	27.0	108	0	80-120	20
Titanium	ND	25.0	24.8	99	25.0	25.2	101	2	80-120	20
Vanadium	ND	25.0	24.6	98	25.0	25.0	100	2	80-120	20
Zinc	ND	50.0	47.4	95	50.0	47.8	96	1	80-120	20
Lithium	ND	25.0	25.3	101	25.0	25.3	101	0	80-120	20
Phosphorus	ND	250	244	97	250	249	100	2	80-120	20
Zirconium	ND	25.0	26.7	107	25.0	26.5	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B176
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.976 0.976
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03W B201-03A
LAB FILE ID: 98B17031 98B17030
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/29/1213:22 02/29/1213:18 DATE RECEIVED: 02/22/12
PREP. BATCH: NA NA
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	8530	2600	11000	96	75-125
Antimony	0.195J	26.0	25.2	96	75-125
Arsenic	3.17	26.0	26.9	91	75-125
Barium	76.7	26.0	101	93	75-125
Beryllium	0.358	26.0	24.8	94	75-125
Boron	30.0	26.0	53.7	91	75-125
Cadmium	0.165	26.0	24.9	95	75-125
Calcium	9560	2600	11900	90	75-125
Chromium	21.4	26.0	44.1	87	75-125
Cobalt	4.34	26.0	27.6	89	75-125
Copper	7.00	26.0	28.7	83	75-125
Iron	20000	2600	22200	85	75-125
Lead	52.5	26.0	75.7	89	75-125
Magnesium	3300	2600	5690	92	75-125
Manganese	302	26.0	324	84	75-125
Molybdenum	2.55	26.0	27.6	96	75-125
Nickel	8.49	26.0	30.5	85	75-125
Potassium	2680	2600	5200	97	75-125
Selenium	ND	26.0	24.6	94	75-125
Silver	ND	26.0	24.0	92	75-125
Sodium	374	2600	2760	92	75-125
Strontium	34.7	26.0	59.2	94	75-125
Thallium	0.230	26.0	24.9	95	75-125
Tin	ND	26.0	28.3	109	75-125
Titanium	831	26.0	857	100	75-125
Vanadium	28.7	26.0	52.0	89	75-125
Zinc	56.0	52.1	103	89	75-125
Lithium	18.3	26.0	43.0	95	75-125
Phosphorus	401	260	640	92	75-125
Zirconium	ND	26.0	28.3	109	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 0.976 4.88
SAMPLE ID: SL-187-SA7-SB- SL-187-SA7-SB-
EMAX SAMP ID: B201-03W B201-03J
LAB FILE ID: 98B17031 98B17035
DATE EXTRACTED: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/29/1213:22 02/29/1213:40 DATE RECEIVED: 02/22/12
PREP. BATCH: IMB023S IMB023S
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	8530	8920	5	10
Antimony	0.195J	ND	NA	10
Arsenic	3.17	3.31	4	10
Barium	76.7	72.1	6	10
Beryllium	0.358	0.364J	2	10
Boron	30.0	29.3	2	10
Cadmium	0.165	ND	NA	10
Calcium	9560	9930	4	10
Chromium	21.4	21.9	2	10
Cobalt	4.34	4.54	5	10
Copper	7.00	7.43	6	10
Iron	20000	21100	5	10
Lead	52.5	52.6	0	10
Magnesium	3300	3450	5	10
Manganese	302	322	7	10
Molybdenum	2.55	2.44	4	10
Nickel	8.49	8.78	3	10
Potassium	2680	2680	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	374	323J	NA	10
Strontium	34.7	34.1	2	10
Thallium	0.230	ND	NA	10
Tin	ND	ND	0	10
Titanium	831	842	1	10
Vanadium	28.7	29.2	2	10
Zinc	56.0	58.0	3	10
Lithium	18.3	16.6	9	10
Phosphorus	401	385	4	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B176
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB020SB	ND	1	NA	0.100	0.0500	02/23/1217:58	02/23/1213:20	M47B016040	M47B016032	HGB020S	NA	02/23/12
LCS1S	HGB020SL	0.893	1	NA	0.100	0.0500	02/23/1218:00	02/23/1213:20	M47B016041	M47B016032	HGB020S	NA	02/23/12
LCD1S	HGB020SC	0.895	1	NA	0.100	0.0500	02/23/1218:03	02/23/1213:20	M47B016042	M47B016032	HGB020S	NA	02/23/12
SL-323-SA6-SB-23.0-24.0	B176-02	ND	1.00	5.6	0.106	0.0530	02/23/1218:24	02/23/1213:20	M47B016052	M47B016044	HGB020S	02/20/12	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B176
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB020SB	HGB020SL	HGB020SC		
LAB FILE ID:	M47B016040	M47B016041	M47B016042		
DATIME EXTRCTD:	02/23/1213:20	02/23/1213:20	02/23/1213:20	DATE COLLECTED:	NA
DATIME ANALYZD:	02/23/1217:58	02/23/1218:00	02/23/1218:03	DATE RECEIVED:	02/23/12
PREP. BATCH:	HGB020S	HGB020S	HGB020S		
CALIB. REF:	M47B016032	M47B016032	M47B016032		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.893	107	.833	.895	107	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B176
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	22.6
DILTN FACTR:	0.993	0.993		
SAMPLE ID:	SL-325-SA6-SB-22.5-23.5			
CONTROL NO.:	B174-02	B174-02A		
LAB FILE ID:	M47B016046	M47B016043		
DATIME EXTRCTD:	02/23/1213:20	02/23/1213:20	DATE COLLECTED:	02/17/12
DATIME ANALYZD:	02/23/1218:12	02/23/1218:05	DATE RECEIVED:	02/17/12
PREP. BATCH:	HGB020S	HGB020S		
CALIB. REF:	M47B016044	M47B016032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	.107J	1.07	1.22	104	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 22.6
DILUTION FACTOR: 0.993 4.97
SAMPLE ID: SL-325-SA6-SB-22.5-2.3 SL-325-SA6-SB-22.5-2.3
EMAX SAMP ID: B174-02 B174-02J
LAB FILE ID: M47B016046 M47B016047
DATE EXTRACTED: 02/23/1213:20 02/23/1213:20 DATE COLLECTED: 02/17/12
DATE ANALYZED: 02/23/1218:12 02/23/1218:14 DATE RECEIVED: 02/17/12
PREP. BATCH: HGB020S HGB020S
CALIB. REF: M47B016044 M47B016044

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	0.107J	ND	NA	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B176
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB004SB	ND	1	NA	1.00	0.500	02/21/1214:22	02/21/1212:07	AB27-13	AB27-11	ICB004S	NA	02/21/12
LCS1S	ICB004SL	5.85	1	NA	1.00	0.500	02/21/1214:38	02/21/1212:07	AB27-14	AB27-11	ICB004S	NA	02/21/12
LCD1S	ICB004SC	5.87	1	NA	1.00	0.500	02/21/1214:54	02/21/1212:07	AB27-15	AB27-11	ICB004S	NA	02/21/12
SL-323-SA6-SB-23.0-24.0	B176-02	2.91	1	5.6	1.06	0.530	02/21/1215:59	02/21/1212:07	AB27-19	AB27-11	ICB004S	02/20/1210:50	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB004SB	ICB004SL	ICB004SC		
LAB FILE ID:	AB27-13	AB27-14	AB27-15		
DATE EXTRACTED:	02/21/1212:07	02/21/1212:07	02/21/1212:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/21/1214:22	02/21/1214:38	02/21/1214:54	DATE RECEIVED:	02/21/12
PREP. BATCH:	ICB004S	ICB004S	ICB004S		
CALIB. REF:	AB27-11	AB27-11	AB27-11		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	5.85	98	6.00	5.87	98	0	90-110	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B176
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB005SB	ND	1	NA	20.0	10.0	02/23/1216:15	02/23/1214:30	JB23003	JB23002	PCB005S	NA	02/23/12
LCS1S	PCB005SL	247	1	NA	20.0	10.0	02/23/1216:57	02/23/1214:30	JB23005	JB23002	PCB005S	NA	02/23/12
LCD1S	PCB005SC	252	1	NA	20.0	10.0	02/23/1217:18	02/23/1214:30	JB23006	JB23002	PCB005S	NA	02/23/12
SL-323-SA6-SB-23.0-24.0	B176-02	42.2	1	5.6	21.2	10.6	02/23/1218:51	02/23/1214:30	JB23010	JB23002	PCB005S	02/20/1210:50	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB005SB	PCB005SL	PCB005SC		
LAB FILE ID:	JB23003	JB23005	JB23006		
DATE EXTRACTED:	02/23/1214:30	02/23/1214:30	02/23/1214:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1216:15	02/23/1216:57	02/23/1217:18	DATE RECEIVED:	02/23/12
PREP. BATCH:	PCB005S	PCB005S	PCB005S		
CALIB. REF:	JB23002	JB23002	JB23002		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	247	99	250	252	101	2	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B176
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB003SB	ND	1	NA	1.00	0.500	02/24/1210:50	02/23/1214:07	IB24003	IB24001	HCB003S	NA	02/23/12
MBLK1S	HCB003SQ	ND	1	NA	1.00	0.500	02/24/1211:00	02/23/1214:07	IB24004	IB24001	HCB003S	NA	02/23/12
LCS1S	CSB003SL	8.61	1	NA	1.00	0.500	02/24/1211:21	02/23/1214:07	IB24005	IB24001	CSB003S	NA	02/23/12
LCS1S	CSB003SX	9.61	1	NA	1.00	0.500	02/24/1211:31	02/23/1214:07	IB24006	IB24001	CSB003S	NA	02/23/12
LCS2S	CIB003SL	194	20	NA	20.0	10.0	02/24/1211:42	02/23/1214:07	IB24007	IB24001	CIB003S	NA	02/23/12
LCS2S	CIB003SX	200	20	NA	20.0	10.0	02/24/1211:52	02/23/1214:07	IB24008	IB24001	CIB003S	NA	02/23/12
SL-323-SA6-SB-23.0-24.0	B176-02	ND	1	5.6	1.06	0.530	02/24/1222:01	02/23/1214:07	IB24049	IB24043	CIB003S	02/20/1210:50	02/21/12
SL-323-SA6-SB-23.0-24.0	B176-02R	ND	1	5.6	1.06	0.530	02/24/1222:11	02/23/1214:07	IB24050	IB24043	CIB003S	02/20/1210:50	02/21/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SB CIB003SL
LAB FILE ID: IB24003 IB24007
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1210:50 02/24/1211:42 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	194	82	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SQ CIB003SX
LAB FILE ID: IB24004 IB24008
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1211:00 02/24/1211:52 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	200	85	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SB	CSB003SL		
LAB FILE ID:	IB24003	IB24005		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:50	02/24/1211:21	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.62	86	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B176
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SQ	CSB003SX		
LAB FILE ID:	IB24004	IB24006		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1211:00	02/24/1211:31	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	9.61	96	80-120

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B176
Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-323-SA6-SB-23.0-24.0	B176-02	9.97	1	5.6	NA	NA	02/21/1215:36	02/21/1215:36	PHB028S01	PHB028S	PHB028S	02/20/1210:50	02/21/12
SL-323-SA6-SB-23.0-24.0DUP	B176-02D	9.97	1	5.6	NA	NA	02/21/1215:36	02/21/1215:36	PHB028S02	PHB028S	PHB028S	02/20/1210:50	02/21/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: 5.6

BATCH NO.: 12B176 DATE RECEIVED: 02/21/12
SAMPLE ID: SL-323-SA6-SB-23.0-24.0DUP DATE EXTRACTED: 02/21/12 15:36
CONTROL NO.: B176-02D DATE ANALYZED: 02/21/12 15:36

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	9.97	9.97	0	+/- 0.1

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-186-SA7-SB-27.0-28.0	Date Analyzed: 02/27/12 18:44
Lab Samp ID: B189-02	Dilution Factor: 1
Lab File ID: RBJ197	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 7.5
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	91
1,2-DICHLOROBENZENE	ND	180	91
1,3-DICHLOROBENZENE	ND	180	91
1,4-DICHLOROBENZENE	ND	180	91
2,4,5-TRICHLOROPHENOL	ND	180	91
2,4,6-TRICHLOROPHENOL	ND	180	91
2,4-DICHLOROPHENOL	ND	180	91
2,4-DIMETHYLPHENOL	ND	180	91
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	91
2,6-DINITROTOLUENE	ND	180	91
2-CHLORONAPHTHALENE	ND	180	91
2-CHLOROPHENOL	ND	180	91
2-METHYLNAPHTHALENE	ND	180	91
2-METHYLPHENOL	ND	180	91
2-NITROANILINE	ND	180	91
2-NITROPHENOL	ND	180	91
3,3'-DICHLOROBENZIDINE	ND	180	91
3-NITROANILINE	ND	180	91
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	91
4-CHLORO-3-METHYLPHENOL	ND	180	91
4-CHLOROANILINE	ND	180	91
4-CHLOROPHENYL-PHENYLETHER	ND	180	91
4-METHYLPHENOL (1)	ND	180	91
4-NITROANILINE	ND	180	91
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	91
ACENAPHTHYLENE	ND	180	91
ANTHRACENE	ND	180	91
BENZO(A)ANTHRACENE	ND	180	91
BENZO(A)PYRENE	ND	180	91
BENZO(B)FLUORANTHENE	ND	180	91
BENZO(K)FLUORANTHENE	ND	180	91
BENZO(G,H,I)PERYLENE	ND	180	91
BIS(2-CHLOROETHOXY)METHANE	ND	180	91
BIS(2-CHLOROETHYL)ETHER	ND	180	91
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	91
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	91
BUTYLBENZYLPHTHALATE	ND	180	91
CHRYSENE	ND	180	91
DI-N-BUTYLPHTHALATE	ND	180	91
DI-N-OCTYLPHTHALATE	ND	180	91
DIBENZO(A,H)ANTHRACENE	ND	180	91
DIBENZOFURAN	ND	180	91
DIETHYLPHTHALATE	ND	180	91
DIMETHYLPHTHALATE	ND	180	91
FLUORANTHENE	ND	180	91
FLUORENE	ND	180	91
HEXACHLOROBENZENE	ND	180	91
HEXACHLOROBUTADIENE	ND	180	91
HEXACHLOROCYCLOPENTADIENE	ND	180	91
HEXACHLOROETHANE	ND	180	91
INDENO(1,2,3-CD)PYRENE	ND	180	91
ISOPHORONE	ND	180	91
N-NITROSO-DI-N-PROPYLAMINE	ND	180	91
N-NITROSODIPHENYLAMINE (2)	ND	180	91
NAPHTHALENE	ND	180	91
NITROBENZENE	ND	180	91
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	91
PHENOL	ND	180	91
PYRENE	ND	180	91
BENZYL ALCOHOL	ND	180	91
1-METHYLNAPHTHALENE	ND	180	91
1,2-DIPHENYLHYDRAZINE	ND	180	91
3,5-DIMETHYLPHENOL	ND	180	91
ANILINE	ND	360	180
BENZIDINE	ND	900	450
BENZOIC ACID	ND	720	360
CARBAZOLE	ND	180	91
N-NITROSODIMETHYLAMINE	ND	180	91
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	879	1081	81.3	35-130
2-FLUOROBIPHENYL	266	360.3	73.9	45-130
2-FLUOROPHENOL	789	1081	73.0	25-130
NITROBENZENE-D5	250	360.3	69.5	40-130
PHENOL-D5	785	1081	72.6	25-120
TERPHENYL-D14	327	360.3	90.7	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/27/12 19:03
Lab Samp ID: B189-04	Dilution Factor: 1
Lab File ID: RBJ198	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 6.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	90
1,2-DICHLOROBENZENE	ND	180	90
1,3-DICHLOROBENZENE	ND	180	90
1,4-DICHLOROBENZENE	ND	180	90
2,4,5-TRICHLOROPHENOL	ND	180	90
2,4,6-TRICHLOROPHENOL	ND	180	90
2,4-DICHLOROPHENOL	ND	180	90
2,4-DIMETHYLPHENOL	ND	180	90
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	90
2,6-DINITROTOLUENE	ND	180	90
2-CHLORONAPHTHALENE	ND	180	90
2-CHLOROPHENOL	ND	180	90
2-METHYLNAPHTHALENE	ND	180	90
2-METHYLPHENOL	ND	180	90
2-NITROANILINE	ND	180	90
2-NITROPHENOL	ND	180	90
3,3'-DICHLOROBENZIDINE	ND	180	90
3-NITROANILINE	ND	180	90
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	90
4-CHLORO-3-METHYLPHENOL	ND	180	90
4-CHLOROANILINE	ND	180	90
4-CHLOROPHENYL-PHENYLETHER	ND	180	90
4-METHYLPHENOL (1)	ND	180	90
4-NITROANILINE	ND	180	90
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	90
ACENAPHTHYLENE	ND	180	90
ANTHRACENE	ND	180	90
BENZO(A)ANTHRACENE	ND	180	90
BENZO(A)PYRENE	ND	180	90
BENZO(B)FLUORANTHENE	ND	180	90
BENZO(K)FLUORANTHENE	ND	180	90
BENZO(G,H,I)PERYLENE	ND	180	90
BIS(2-CHLOROETHOXY)METHANE	ND	180	90
BIS(2-CHLOROETHYL)ETHER	ND	180	90
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	90
BUTYLBENZYLPHTHALATE	ND	180	90
CHRYSENE	ND	180	90
DI-N-BUTYLPHTHALATE	ND	180	90
DI-N-OCTYLPHTHALATE	ND	180	90
DIBENZO(A,H)ANTHRACENE	ND	180	90
DIBENZOFURAN	ND	180	90
DIETHYLPHTHALATE	ND	180	90
DIMETHYLPHTHALATE	ND	180	90
FLUORANTHENE	ND	180	90
FLUORENE	ND	180	90
HEXACHLOROBENZENE	ND	180	90
HEXACHLOROBUTADIENE	ND	180	90
HEXACHLOROCYCLOPENTADIENE	ND	180	90
HEXACHLOROETHANE	ND	180	90
INDENO(1,2,3-CD)PYRENE	ND	180	90
ISOPHORONE	ND	180	90
N-NITROSO-DI-N-PROPYLAMINE	ND	180	90
N-NITROSODIPHENYLAMINE (2)	ND	180	90
NAPHTHALENE	ND	180	90
NITROBENZENE	ND	180	90
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	90
PHENOL	ND	180	90
PYRENE	ND	180	90
BENZYL ALCOHOL	ND	180	90
1-METHYLNAPHTHALENE	ND	180	90
1,2-DIPHENYLHYDRAZINE	ND	180	90
3,5-DIMETHYLPHENOL	ND	180	90
ANILINE	ND	360	180
BENZIDINE	ND	890	450
BENZOIC ACID	ND	710	360
CARBAZOLE	ND	180	90
N-NITROSODIMETHYLAMINE	ND	180	90
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	824	1067	77.2	35-130
2-FLUOROBIPHENYL	267	355.7	75.0	45-130
2-FLUOROPHENOL	714	1067	66.9	25-130
NITROBENZENE-D5	230	355.7	64.8	40-130
PHENOL-D5	749	1067	70.2	25-120
TERPHENYL-D14	296	355.7	83.2	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/27/12 19:23
Lab Samp ID: B189-06	Dilution Factor: 1
Lab File ID: RBJ199	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 3.7
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	87
1,2-DICHLOROBENZENE	ND	170	87
1,3-DICHLOROBENZENE	ND	170	87
1,4-DICHLOROBENZENE	ND	170	87
2,4,5-TRICHLOROPHENOL	ND	170	87
2,4,6-TRICHLOROPHENOL	ND	170	87
2,4-DICHLOROPHENOL	ND	170	87
2,4-DIMETHYLPHENOL	ND	170	87
2,4-DINITROPHENOL	ND	350	170
2,4-DINITROTOLUENE	ND	170	87
2,6-DINITROTOLUENE	ND	170	87
2-CHLORONAPHTHALENE	ND	170	87
2-CHLOROPHENOL	ND	170	87
2-METHYLNAPHTHALENE	ND	170	87
2-METHYLPHENOL	ND	170	87
2-NITROANILINE	ND	170	87
2-NITROPHENOL	ND	170	87
3,3'-DICHLOROBENZIDINE	ND	170	87
3-NITROANILINE	ND	170	87
4,6-DINITRO-2-METHYLPHENOL	ND	350	170
4-BROMOPHENYL-PHENYLETHER	ND	170	87
4-CHLORO-3-METHYLPHENOL	ND	170	87
4-CHLOROANILINE	ND	170	87
4-CHLOROPHENYL-PHENYLETHER	ND	170	87
4-METHYLPHENOL (1)	ND	170	87
4-NITROANILINE	ND	170	87
4-NITROPHENOL	ND	350	170
ACENAPHTHENE	ND	170	87
ACENAPHTHYLENE	ND	170	87
ANTHRACENE	ND	170	87
BENZO(A)ANTHRACENE	ND	170	87
BENZO(A)PYRENE	ND	170	87
BENZO(B)FLUORANTHENE	ND	170	87
BENZO(K)FLUORANTHENE	ND	170	87
BENZO(G,H,I)PERYLENE	ND	170	87
BIS(2-CHLOROETHOXY)METHANE	ND	170	87
BIS(2-CHLOROETHYL)ETHER	ND	170	87
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	87
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	87
BUTYLBENZYLPHTHALATE	ND	170	87
CHRYSENE	ND	170	87
DI-N-BUTYLPHTHALATE	ND	170	87
DI-N-OCTYLPHTHALATE	ND	170	87
DIBENZO(A,H)ANTHRACENE	ND	170	87
DIBENZOFURAN	ND	170	87
DIETHYLPHTHALATE	ND	170	87
DIMETHYLPHTHALATE	ND	170	87
FLUORANTHENE	ND	170	87
FLUORENE	ND	170	87
HEXACHLOROBENZENE	ND	170	87
HEXACHLOROBUTADIENE	ND	170	87
HEXACHLOROCYCLOPENTADIENE	ND	170	87
HEXACHLOROETHANE	ND	170	87
INDENO(1,2,3-CD)PYRENE	ND	170	87
ISOPHORONE	ND	170	87
N-NITROSO-DI-N-PROPYLAMINE	ND	170	87
N-NITROSODIPHENYLAMINE (2)	ND	170	87
NAPHTHALENE	ND	170	87
NITROBENZENE	ND	170	87
PENTACHLOROPHENOL	ND	350	170
PHENANTHRENE	ND	170	87
PHENOL	ND	170	87
PYRENE	ND	170	87
BENZYL ALCOHOL	ND	170	87
1-METHYLNAPHTHALENE	ND	170	87
1,2-DIPHENYLHYDRAZINE	ND	170	87
3,5-DIMETHYLPHENOL	ND	170	87
ANILINE	ND	350	170
BENZIDINE	ND	860	440
BENZOIC ACID	ND	690	350
CARBAZOLE	ND	170	87
N-NITROSODIMETHYLAMINE	ND	170	87
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	912	1038	87.8	35-130
2-FLUOROBIPHENYL	285	346.1	82.3	45-130
2-FLUOROPHENOL	784	1038	75.5	25-130
NITROBENZENE-D5	250	346.1	72.4	40-130
PHENOL-D5	784	1038	75.5	25-120
TERPHENYL-D14	334	346.1	96.5	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/27/12 19:42
Lab Samp ID: B189-07	Dilution Factor: 1
Lab File ID: RBJ200	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 7.9
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	91
1,2-DICHLOROBENZENE	ND	180	91
1,3-DICHLOROBENZENE	ND	180	91
1,4-DICHLOROBENZENE	ND	180	91
2,4,5-TRICHLOROPHENOL	ND	180	91
2,4,6-TRICHLOROPHENOL	ND	180	91
2,4-DICHLOROPHENOL	ND	180	91
2,4-DIMETHYLPHENOL	ND	180	91
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	91
2,6-DINITROTOLUENE	ND	180	91
2-CHLORONAPHTHALENE	ND	180	91
2-CHLOROPHENOL	ND	180	91
2-METHYLNAPHTHALENE	ND	180	91
2-METHYLPHENOL	ND	180	91
2-NITROANILINE	ND	180	91
2-NITROPHENOL	ND	180	91
3,3'-DICHLOROBENZIDINE	ND	180	91
3-NITROANILINE	ND	180	91
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	91
4-CHLORO-3-METHYLPHENOL	ND	180	91
4-CHLOROANILINE	ND	180	91
4-CHLOROPHENYL-PHENYLETHER	ND	180	91
4-METHYLPHENOL (1)	ND	180	91
4-NITROANILINE	ND	180	91
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	91
ACENAPHTHYLENE	ND	180	91
ANTHRACENE	ND	180	91
BENZO(A)ANTHRACENE	ND	180	91
BENZO(A)PYRENE	ND	180	91
BENZO(B)FLUORANTHENE	ND	180	91
BENZO(K)FLUORANTHENE	ND	180	91
BENZO(G,H,I)PERYLENE	ND	180	91
BIS(2-CHLOROETHOXY)METHANE	ND	180	91
BIS(2-CHLOROETHYL)ETHER	ND	180	91
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	91
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	91
BUTYLBENZYLPHTHALATE	ND	180	91
CHRYSENE	ND	180	91
DI-N-BUTYLPHTHALATE	ND	180	91
DI-N-OCTYLPHTHALATE	ND	180	91
DIBENZO(A,H)ANTHRACENE	ND	180	91
DIBENZOFURAN	ND	180	91
DIETHYLPHTHALATE	ND	180	91
DIMETHYLPHTHALATE	ND	180	91
FLUORANTHENE	ND	180	91
FLUORENE	ND	180	91
HEXACHLOROBENZENE	ND	180	91
HEXACHLOROBUTADIENE	ND	180	91
HEXACHLOROCYCLOPENTADIENE	ND	180	91
HEXACHLOROETHANE	ND	180	91
INDENO(1,2,3-CD)PYRENE	ND	180	91
ISOPHORONE	ND	180	91
N-NITROSO-DI-N-PROPYLAMINE	ND	180	91
N-NITROSODIPHENYLAMINE (2)	ND	180	91
NAPHTHALENE	ND	180	91
NITROBENZENE	ND	180	91
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	91
PHENOL	ND	180	91
PYRENE	ND	180	91
BENZYL ALCOHOL	ND	180	91
1-METHYLNAPHTHALENE	ND	180	91
1,2-DIPHENYLHYDRAZINE	ND	180	91
3,5-DIMETHYLPHENOL	ND	180	91
ANILINE	ND	360	180
BENZIDINE	ND	900	460
BENZOIC ACID	ND	720	360
CARBAZOLE	ND	180	91
N-NITROSODIMETHYLAMINE	ND	180	91
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	977	1086	90.0	35-130
2-FLUOROBIPHENYL	297	361.9	82.2	45-130
2-FLUOROPHENOL	833	1086	76.7	25-130
NITROBENZENE-D5	268	361.9	74.1	40-130
PHENOL-D5	851	1086	78.4	25-120
TERPHENYL-D14	357	361.9	98.7	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/27/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: MBLK1S	Date Analyzed: 02/27/12 17:09
Lab Samp ID: SVB033SB	Dilution Factor: 1
Lab File ID: RBJ192	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	824	1000	82.4	35-130
2-FLUOROBIPHENYL	281	333.3	84.2	45-130
2-FLUOROPHENOL	777	1000	77.7	25-130
NITROBENZENE-D5	255	333.3	76.5	40-130
PHENOL-D5	788	1000	78.8	25-120
TERPHENYL-D14	316	333.3	94.8	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB033SB SVB033SL SVB033SC
LAB FILE ID: RBJ192 RBJ193 RBJ194
DATE EXTRACTED: 02/27/1211:24 02/27/1211:24 02/27/1211:24 DATE COLLECTED: NA
DATE ANALYZED: 02/27/1217:09 02/27/1217:28 02/27/1217:47 DATE RECEIVED: 02/27/12
PREP. BATCH: SVB033S SVB033S SVB033S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	489	73	667	481	72	2	30-130	50
1,2-Dichlorobenzene	ND	667	503	75	667	474	71	6	40-130	50
1,3-Dichlorobenzene	ND	667	486	73	667	462	69	5	40-130	50
1,4-Dichlorobenzene	ND	667	495	74	667	468	70	6	30-130	50
2,4,5-Trichlorophenol	ND	667	522	78	667	519	78	0	40-130	50
2,4,6-Trichlorophenol	ND	667	522	78	667	539	81	3	40-130	50
2,4-Dichlorophenol	ND	667	536	80	667	528	79	2	40-130	50
2,4-Dimethylphenol	ND	667	529	79	667	530	79	0	40-130	50
2,4-Dinitrophenol	ND	667	464	70	667	460	69	1	20-130	50
2,4-Dinitrotoluene	ND	667	567	85	667	567	85	0	30-130	50
2,6-Dinitrotoluene	ND	667	540	81	667	552	83	2	50-130	50
2-Chloronaphthalene	ND	667	559	84	667	549	82	2	50-130	50
2-Chlorophenol	ND	667	501	75	667	489	73	2	30-130	50
2-Methylnaphthalene	ND	667	553	83	667	553	83	0	40-130	50
2-Methylphenol	ND	667	523	78	667	507	76	3	40-130	50
2-Nitroaniline	ND	667	527	79	667	524	79	1	40-130	50
2-Nitrophenol	ND	667	536	80	667	543	81	1	40-130	50
3,3'-Dichlorobenzidine	ND	667	525	79	667	516	77	2	50-130	50
3-Nitroaniline	ND	667	494	74	667	489	73	1	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	555	83	667	581	87	5	40-160	50
4-Bromophenyl-phenylether	ND	667	555	83	667	591	89	6	40-140	50
4-Chloro-3-Methylphenol	ND	667	529	79	667	534	80	1	30-130	50
4-Chloroaniline	ND	667	458	69	667	441	66	4	40-130	50
4-Chlorophenyl-phenylether	ND	667	536	80	667	542	81	1	40-140	50
4-Methylphenol	ND	667	534	80	667	538	81	1	30-130	50
4-Nitroaniline	ND	667	552	83	667	523	78	5	50-130	50
4-Nitrophenol	ND	667	477	72	667	506	76	6	20-140	50
Acenaphthene	ND	667	540	81	667	535	80	1	30-130	50
Acenaphthylene	ND	667	546	82	667	548	82	0	30-130	50
Anthracene	ND	667	543	81	667	561	84	3	30-130	50
Benzo(a)anthracene	ND	667	585	88	667	595	89	2	40-130	50
Benzo(a)pyrene	ND	667	566	85	667	564	85	0	40-130	50
Benzo(b)fluoranthene	ND	667	614	92	667	610	91	1	40-140	50
Benzo(k)fluoranthene	ND	667	599	90	667	608	91	1	40-140	50
Benzo(g,h,i)perylene	ND	667	623	93	667	615	92	1	40-140	50
bis(2-Chloroethoxy)methane	ND	667	523	78	667	511	77	2	40-130	50
bis(2-Chloroethyl)ether	ND	667	498	75	667	477	72	4	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	513	77	667	511	77	0	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	657	98	667	657	99	0	40-150	50
Butylbenzylphthalate	ND	667	662	99	667	651	98	2	40-150	50
Chrysene	ND	667	618	93	667	607	91	2	40-140	50
Di-n-butylphthalate	ND	667	629	94	667	637	96	1	10-130	50
Di-n-octylphthalate	ND	667	656	98	667	644	97	2	20-140	50
Dibenzo(a,h)anthracene	ND	667	617	93	667	609	91	1	40-130	50
Dibenzofuran	ND	667	536	80	667	545	82	2	40-130	50
Diethylphthalate	ND	667	577	87	667	581	87	1	40-130	50
Dimethylphthalate	ND	667	571	86	667	568	85	1	40-130	50
Fluoranthene	ND	667	595	89	667	624	94	5	40-130	50

Fluorene	ND	667	550	82	667	554	83	1	30-130	50
Hexachlorobenzene	ND	667	589	88	667	607	91	3	30-130	50
Hexachlorobutadiene	ND	667	513	77	667	505	76	2	10-130	50
Hexachlorocyclopentadiene	ND	667	391	59	667	396	59	1	10-130	50
Hexachloroethane	ND	667	477	71	667	456	68	4	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	614	92	667	603	90	2	30-140	50
Isophorone	ND	667	539	81	667	548	82	2	40-130	50
n-Nitroso-di-n-propylamine	ND	667	510	77	667	518	78	1	30-130	50
n-Nitrosodiphenylamine	ND	667	439	66	667	444	67	1	30-140	50
Naphthalene	ND	667	529	79	667	526	79	0	30-130	50
Nitrobenzene	ND	667	486	73	667	545	82	11	40-130	50
Pentachlorophenol	ND	667	516	77	667	537	81	4	20-130	50
Phenanthrene	ND	667	568	85	667	584	88	3	30-130	50
Phenol	ND	667	522	78	667	508	76	3	30-130	50
Pyrene	ND	667	582	87	667	580	87	0	30-130	50
Benzyl Alcohol	ND	667	539	81	667	547	82	1	40-130	50
1-Methylnaphthalene	ND	667	557	84	667	555	83	0	30-150	50
1,2-Diphenylhydrazine	ND	667	566	85	667	574	86	1	30-130	50
3,5-Dimethylphenol	ND	667	519	78	667	526	79	1	20-150	50
Aniline	ND	667	373	56	667	346	52	8	20-150	50
Benzidine	ND	2670	985	37	2670	798J	30	21	20-130	50
Benzoic Acid	ND	2670	1020	38	2670	882	33	15	10-130	50
Carbazole	ND	667	563	84	667	594	89	5	40-130	50
N-Nitrosodimethylamine	ND	667	522	78	667	488	73	7	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	824	82	1000	834	83	35-130
2-Fluorobiphenyl	333	237	71	333	245	74	45-130
2-Fluorophenol	1000	702	70	1000	713	71	25-130
Nitrobenzene-d5	333	234	70	333	241	72	40-130
Phenol-d5	1000	707	71	1000	730	73	25-120
Terphenyl-d14	333	304	91	333	301	90	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-186-SA7-SB-27.0-28.0	Date Analyzed: 02/27/12 18:44
Lab Samp ID: B189-02	Dilution Factor: 1
Lab File ID: RBJ197	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 7.5
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.92
ACENAPHTHYLENE	ND	1.8	0.92
ANTHRACENE	ND	1.8	0.92
BENZO(A)ANTHRACENE	ND	1.8	0.92
BENZO(A)PYRENE	ND	1.8	0.92
BENZO(B)FLUORANTHENE	0.94J	1.8	0.92
BENZO(K)FLUORANTHENE	1.0J	1.8	0.92
BENZO(G,H,I)PERYLENE	ND	1.8	0.92
CHRYSENE	ND	1.8	0.92
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.92
FLUORANTHENE	ND	1.8	0.92
FLUORENE	ND	1.8	0.92
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.92
NAPHTHALENE	ND	1.8	0.92
PHENANTHRENE	ND	1.8	0.92
PYRENE	ND	1.8	0.92
2-METHYLNAPHTHALENE	ND	1.8	0.92
1-METHYLNAPHTHALENE	ND	1.8	0.92
BIS(2-ETHYLHEXYL)PHTHALATE	11J	18	9.1
BUTYLBENZYLPHTHALATE	ND	18	9.1
DI-N-BUTYLPHTHALATE	ND	18	9.1
DI-N-OCTYLPHTHALATE	ND	18	9.1
DIETHYLPHTHALATE	ND	18	9.1
DIMETHYLPHTHALATE	ND	18	9.1
N-NITROSODIMETHYLAMINE	ND	1.8	0.92

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	271	360.3	75.2	40-130
2-FLUOROBIPHENYL	255	360.3	70.8	45-130
TERPHENYL-D14	326	360.3	90.5	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/27/12 19:03
Lab Samp ID: B189-04	Dilution Factor: 1
Lab File ID: RBJ198	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 6.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.91
ACENAPHTHYLENE	ND	1.8	0.91
ANTHRACENE	ND	1.8	0.91
BENZO(A)ANTHRACENE	1.4J	1.8	0.91
BENZO(A)PYRENE	1.5J	1.8	0.91
BENZO(B)FLUORANTHENE	2.1	1.8	0.91
BENZO(K)FLUORANTHENE	1.0J	1.8	0.91
BENZO(G,H,I)PERYLENE	1.6J	1.8	0.91
CHRYSENE	1.5J	1.8	0.91
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.91
FLUORANTHENE	1.9	1.8	0.91
FLUORENE	ND	1.8	0.91
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.91
NAPHTHALENE	ND	1.8	0.91
PHENANTHRENE	ND	1.8	0.91
PYRENE	2.8	1.8	0.91
2-METHYLNAPHTHALENE	ND	1.8	0.91
1-METHYLNAPHTHALENE	ND	1.8	0.91
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	9.0
BUTYLBENZYLPHTHALATE	ND	18	9.0
DI-N-BUTYLPHTHALATE	ND	18	9.0
DI-N-OCTYLPHTHALATE	ND	18	9.0
DIETHYLPHTHALATE	ND	18	9.0
DIMETHYLPHTHALATE	ND	18	9.0
N-NITROSODIMETHYLAMINE	ND	1.8	0.91

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	256	355.7	71.9	40-130
2-FLUOROBIPHENYL	251	355.7	70.4	45-130
TERPHENYL-D14	302	355.7	85.0	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/27/12 19:23
Lab Samp ID: B189-06	Dilution Factor: 1
Lab File ID: RBJ199	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 3.7
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.88
ACENAPHTHYLENE	ND	1.8	0.88
ANTHRACENE	ND	1.8	0.88
BENZO(A)ANTHRACENE	ND	1.8	0.88
BENZO(A)PYRENE	ND	1.8	0.88
BENZO(B)FLUORANTHENE	ND	1.8	0.88
BENZO(K)FLUORANTHENE	ND	1.8	0.88
BENZO(G,H,I)PERYLENE	ND	1.8	0.88
CHRYSENE	ND	1.8	0.88
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.88
FLUORANTHENE	ND	1.8	0.88
FLUORENE	ND	1.8	0.88
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.88
NAPHTHALENE	ND	1.8	0.88
PHENANTHRENE	ND	1.8	0.88
PYRENE	ND	1.8	0.88
2-METHYLNAPHTHALENE	ND	1.8	0.88
1-METHYLNAPHTHALENE	ND	1.8	0.88
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.7
BUTYLBENZYLPHTHALATE	ND	17	8.7
DI-N-BUTYLPHTHALATE	ND	17	8.7
DI-N-OCTYLPHTHALATE	ND	17	8.7
DIETHYLPHTHALATE	ND	17	8.7
DIMETHYLPHTHALATE	ND	17	8.7
N-NITROSODIMETHYLAMINE	ND	1.8	0.88

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	278	346.1	80.4	40-130
2-FLUOROBIPHENYL	266	346.1	77.0	45-130
TERPHENYL-D14	331	346.1	95.7	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/27/12 19:42
Lab Samp ID: B189-07	Dilution Factor: 1
Lab File ID: RBJ200	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 7.9
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.92
ACENAPHTHYLENE	ND	1.8	0.92
ANTHRACENE	ND	1.8	0.92
BENZO(A)ANTHRACENE	ND	1.8	0.92
BENZO(A)PYRENE	ND	1.8	0.92
BENZO(B)FLUORANTHENE	ND	1.8	0.92
BENZO(K)FLUORANTHENE	ND	1.8	0.92
BENZO(G,H,I)PERYLENE	ND	1.8	0.92
CHRYSENE	ND	1.8	0.92
DIBENZO(A,H)ANTHRACENE	ND	1.8	0.92
FLUORANTHENE	ND	1.8	0.92
FLUORENE	ND	1.8	0.92
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.92
NAPHTHALENE	ND	1.8	0.92
PHENANTHRENE	ND	1.8	0.92
PYRENE	ND	1.8	0.92
2-METHYLNAPHTHALENE	ND	1.8	0.92
1-METHYLNAPHTHALENE	ND	1.8	0.92
BIS(2-ETHYLHEXYL)PHTHALATE	ND	18	9.1
BUTYLBENZYLPHTHALATE	ND	18	9.1
DI-N-BUTYLPHTHALATE	ND	18	9.1
DI-N-OCTYLPHTHALATE	ND	18	9.1
DIETHYLPHTHALATE	ND	18	9.1
DIMETHYLPHTHALATE	ND	18	9.1
N-NITROSODIMETHYLAMINE	ND	1.8	0.92

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	299	361.9	82.6	40-130
2-FLUOROBIPHENYL	285	361.9	78.7	45-130
TERPHENYL-D14	359	361.9	99.1	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/27/12
Batch No. : 12B189	Date Extracted: 02/27/12 11:24
Sample ID: MBLK1S	Date Analyzed: 02/27/12 17:09
Lab Samp ID: SVB033SB	Dilution Factor: 1
Lab File ID: RBJ192	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	281	333.3	84.5	40-130
2-FLUOROBIPHENYL	266	333.3	79.9	45-130
TERPHENYL-D14	317	333.3	95.0	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 3550B/8270C SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB033SB	SVB033SX	SVB033SY		
LAB FILE ID:	RBJ192	RBJ195	RBJ196		
DATE EXTRACTED:	02/27/1211:24	02/27/1211:24	02/27/1211:24	DATE COLLECTED:	NA
DATE ANALYZED:	02/27/1217:09	02/27/1218:06	02/27/1218:25	DATE RECEIVED:	02/27/12
PREP. BATCH:	SVB033S	SVB033S	SVB033S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	276	83	333	284	85	3	10-130	50
Acenaphthylene	ND	333	297	89	333	307	92	3	20-130	50
Anthracene	ND	333	263	79	333	273	82	4	20-130	50
Benzo(a)anthracene	ND	333	287	86	333	312	94	8	30-130	50
Benzo(a)pyrene	ND	333	299	90	333	319	96	7	30-130	50
Benzo(b)fluoranthene	ND	333	320	96	333	336	101	5	40-130	50
Benzo(k)fluoranthene	ND	333	325	97	333	352	106	8	30-140	50
Benzo(g,h,i)perylene	ND	333	324	97	333	347	104	7	30-140	50
Chrysene	ND	333	279	84	333	302	91	8	30-140	50
Dibenzo(a,h)anthracene	ND	333	328	98	333	352	106	7	40-140	50
Fluoranthene	ND	333	295	89	333	316	95	7	30-130	50
Fluorene	ND	333	295	89	333	302	91	2	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	330	99	333	354	106	7	20-160	50
Naphthalene	ND	333	251	75	333	260	78	3	10-130	50
Phenanthrene	ND	333	267	80	333	278	83	4	20-130	50
Pyrene	ND	333	284	85	333	304	91	7	20-150	50
2-Methylnaphthalene	ND	333	274	82	333	284	85	4	30-150	50
1-Methylnaphthalene	ND	333	274	82	333	284	85	4	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	307	92	333	333	100	8	30-130	50
Butylbenzylphthalate	ND	333	291	87	333	316	95	8	30-150	50
Di-n-butylphthalate	ND	333	299	90	333	316	95	6	10-150	50
Di-n-octylphthalate	ND	333	300	90	333	319	96	6	20-150	50
Diethylphthalate	ND	333	310	93	333	318	95	3	30-150	50
Dimethylphthalate	ND	333	301	90	333	306	92	2	30-150	50
N-Nitrosodimethylamine	ND	333	237	71	333	246	74	4	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	233	70	333	267	80	40-130
2-Fluorobiphenyl	333	221	66	333	246	74	45-130
Terphenyl-d14	333	269	81	333	309	93	45-135

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 21:40
Sample ID: SL-186-SA7-SB-27.5	Date Analyzed: 02/23/12 21:40
Lab Samp ID: B189-01	Dilution Factor: 0.91
Lab File ID: EB23007A	Matrix : SOIL
Ext Btch ID: GMB010S	% Moisture : 7.1
Calib. Ref.: EB23003A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.98	0.49

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.58	1.959	80.5	60-130

RL : Reporting Limit
Methanol Extraction: 02/22/12 16:19

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 22:22
Sample ID: SL-188-SA7-SB-19.0	Date Analyzed: 02/23/12 22:22
Lab Samp ID: B189-03	Dilution Factor: 0.87
Lab File ID: EB23008A	Matrix : SOIL
Ext Btch ID: GMB010S	% Moisture : 6.5
Calib. Ref.: EB23003A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.93	0.47

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.55	1.861	83.4	60-130

RL : Reporting Limit
Methanol Extraction: 02/22/12 16:19

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 23:04
Sample ID: SL-188-SA7-SB-22.5	Date Analyzed: 02/23/12 23:04
Lab Samp ID: B189-05	Dilution Factor: 0.99
Lab File ID: EB23009A	Matrix : SOIL
Ext Btch ID: GMB010S	% Moisture : 3.4
Calib. Ref.: EB23003A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.51

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.70	2.050	83.0	60-130

RL : Reporting Limit
Methanol Extraction: 02/22/12 16:19

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 23:46
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/23/12 23:46
Lab Samp ID: B189-07	Dilution Factor: 0.9
Lab File ID: EB23010A	Matrix : SOIL
Ext Btch ID: GMB010S	% Moisture : 7.9
Calib. Ref.: EB23003A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	0.98	0.49

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.59	1.954	81.3	60-130

RL : Reporting Limit
Methanol Extraction: 02/22/12 16:19

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/22/12 12:11
Sample ID: TB-022112	Date Analyzed: 02/22/12 12:11
Lab Samp ID: B189-08	Dilution Factor: 1
Lab File ID: EB21038A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21033A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	34.2	40.00	85.4	60-130

RL : Reporting Limit

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B189	Date Extracted: 02/23/12 19:34
Sample ID: MBLK1S	Date Analyzed: 02/23/12 19:34
Lab Samp ID: GMB010SB	Dilution Factor: 1
Lab File ID: EB23004A	Matrix : SOIL
Ext Btch ID: GMB010S	% Moisture : NA
Calib. Ref.: EB23003A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.73	2.000	86.3	60-130

RL : Reporting Limit
Methanol Extraction: 02/22/12 16:19

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B189	Date Extracted: 02/22/12 05:54
Sample ID: MBLK1W	Date Analyzed: 02/22/12 05:54
Lab Samp ID: VA39B13B	Dilution Factor: 1
Lab File ID: EB21029A	Matrix : WATER
Ext Btch ID: VA39B13	% Moisture : NA
Calib. Ref.: EB21022A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	31.1	40.00	77.9	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB010SB	GMB010SL	GMB010SC		
LAB FILE ID:	EB23004A	EB23005A	EB23006A		
DATE EXTRACTED:	02/23/1219:34	02/23/1220:16	02/23/1220:58	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1219:34	02/23/1220:16	02/23/1220:58	DATE RECEIVED:	02/23/12
PREP. BATCH:	GMB010S	GMB010S	GMB010S		
CALIB. REF:	EB23003A	EB23003A	EB23003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	25.7	103	25.0	24.9	100	3	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	2.08	104	2.00	2.06	103	60-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B13B	VA39B13L	VA39B13C		
LAB FILE ID:	EB21029A	EB21027A	EB21028A		
DATE EXTRACTED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1205:54	02/22/1204:31	02/22/1205:13	DATE RECEIVED:	02/22/12
PREP. BATCH:	VA39B13	VA39B13	VA39B13		
CALIB. REF:	EB21022A	EB21022A	EB21022A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	462	92	500	477	95	3	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	39.0	97	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/22/12 10:20
Sample ID: SL-186-SA7-SB-27.0-28.0	Date Analyzed: 02/22/12 14:13
Lab Samp ID: B189-02	Dilution Factor: 1
Lab File ID: BB22013A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 7.5
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	540	270
ISOPROPANOL	ND	540	270
METHANOL	ND	540	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/22/12 10:20
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/22/12 14:34
Lab Samp ID: B189-04	Dilution Factor: 1
Lab File ID: BB22014A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 6.3
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	530	270
ISOPROPANOL	ND	530	270
METHANOL	ND	530	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/22/12 10:20
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/22/12 14:52
Lab Samp ID: B189-06	Dilution Factor: 1
Lab File ID: BB22015A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 3.7
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	520	260
ISOPROPANOL	ND	520	260
METHANOL	ND	520	260

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/22/12 10:20
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/22/12 15:11
Lab Samp ID: B189-07	Dilution Factor: 1
Lab File ID: BB22016A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : 7.9
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	540	270
ISOPROPANOL	ND	540	270
METHANOL	ND	540	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B189	Date Extracted: 02/22/12 10:20
Sample ID: MBLK1S	Date Analyzed: 02/22/12 11:37
Lab Samp ID: MEB004SB	Dilution Factor: 1
Lab File ID: BB22005A	Matrix : SOIL
Ext Btch ID: MEB004S	% Moisture : NA
Calib. Ref.: BB22004A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB004SB	MEB004SL	MEB004SC		
LAB FILE ID:	BB22005A	BB22006A	BB22007A		
DATE EXTRACTED:	02/22/1210:20	02/22/1210:20	02/22/1210:20	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1211:37	02/22/1211:55	02/22/1212:21	DATE RECEIVED:	02/22/12
PREP. BATCH:	MEB004S	MEB004S	MEB004S		
CALIB. REF:	BB22004A	BB22004A	BB22004A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9670	97	10000	9800	98	1	50-150	50
Isopropanol	ND	10000	10700	107	10000	11600	116	8	50-150	50
Methanol	ND	10000	9300	93	10000	10900	109	15	50-150	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/21/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
Batch No.	: 12B189	Date Extracted	: 02/24/12 08:40
Sample ID	: SL-186-SA7-SB-27.0-28.0	Date Analyzed	: 02/24/12 10:41
Lab Samp ID	: B189-02	Dilution Factor	: 1
Lab File ID	: BB24008A	Matrix	: SOIL
Ext Btch ID	: PEB005S	% Moisture	: 7.5
Calib. Ref.	: BB24004A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.1
ETHYLENE GLYCOL	ND	11	5.4
PROPYLENE GLYCOL	ND	11	5.4

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/24/12 08:40
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/24/12 10:55
Lab Samp ID: B189-04	Dilution Factor: 1
Lab File ID: BB24009A	Matrix : SOIL
Ext Btch ID: PEB005S	% Moisture : 6.3
Calib. Ref.: BB24004A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.0
ETHYLENE GLYCOL	ND	11	5.3
PROPYLENE GLYCOL	ND	11	5.3

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/24/12 08:40
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/24/12 11:16
Lab Samp ID: B189-06	Dilution Factor: 1
Lab File ID: BB24010A	Matrix : SOIL
Ext Btch ID: PEB005S	% Moisture : 3.7
Calib. Ref.: BB24004A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	7.8
ETHYLENE GLYCOL	ND	10	5.2
PROPYLENE GLYCOL	ND	10	5.2

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/24/12 08:40
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/24/12 11:34
Lab Samp ID: B189-07	Dilution Factor: 1
Lab File ID: BB24011A	Matrix : SOIL
Ext Btch ID: PEB005S	% Moisture : 7.9
Calib. Ref.: BB24004A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.1
ETHYLENE GLYCOL	ND	11	5.4
PROPYLENE GLYCOL	ND	11	5.4

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
Batch No. : 12B189	Date Extracted: 02/24/12 08:40
Sample ID: MBLK1S	Date Analyzed: 02/24/12 10:26
Lab Samp ID: PEB005SB	Dilution Factor: 1
Lab File ID: BB24007A	Matrix : SOIL
Ext Btch ID: PEB005S	% Moisture : NA
Calib. Ref.: BB24004A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 8015M

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB005SB	PEB005SL	PEB005SC		
LAB FILE ID:	BB24007A	BB24005A	BB24006A		
DATE EXTRACTED:	02/24/1208:40	02/24/1208:40	02/24/1208:40	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:26	02/24/1209:33	02/24/1209:46	DATE RECEIVED:	02/24/12
PREP. BATCH:	PEB005S	PEB005S	PEB005S		
CALIB. REF:	BB24004A	BB24004A	BB24004A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	43.3	87	50.0	43.5	87	0	50-150	50
Ethylene Glycol	ND	50.0	52.2	104	50.0	55.1	110	5	50-150	50
Propylene Glycol	ND	25.0	16.3	65	25.0	17.7	71	8	50-150	50

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 12:31
Sample ID: SL-186-SA7-SB-27.0-28.0	Date Analyzed: 02/24/12 14:22
Lab Samp ID: B189-02W	Dilution Factor: 1
Lab File ID: LB24012A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 7.5
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.65J	1.1	0.54
EFH(C12-C14)	ND	1.1	0.54
EFH(C15-C20)	ND	1.1	0.54
EFH(C21-C30)	ND	1.1	0.54
EFH(C30-C40)	ND	1.1	0.54
TOTAL EFH(C8-C40)	0.65J	1.1	0.54

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	6.98	10.81	64.6	50-150
HEXACOSANE	2.42	2.703	89.5	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 12:31
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/23/12 20:24
Lab Samp ID: B189-04	Dilution Factor: 1
Lab File ID: LB23022A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 6.3
Calib. Ref.: LB23014A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.54J	1.1	0.53
EFH(C12-C14)	ND	1.1	0.53
EFH(C15-C20)	ND	1.1	0.53
EFH(C21-C30)	7.1	1.1	0.53
EFH(C30-C40)	15	1.1	0.53
TOTAL EFH(C8-C40)	23	1.1	0.53

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.29	10.67	68.3	50-150
HEXACOSANE	2.84	2.668	106	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 12:31
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/24/12 14:39
Lab Samp ID: B189-06W	Dilution Factor: 1
Lab File ID: LB24013A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 3.7
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.66J	1.0	0.52
EFH(C12-C14)	ND	1.0	0.52
EFH(C15-C20)	ND	1.0	0.52
EFH(C21-C30)	0.94J	1.0	0.52
EFH(C30-C40)	ND	1.0	0.52
TOTAL EFH(C8-C40)	1.6	1.0	0.52

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	6.82	10.38	65.6	50-150
HEXACOSANE	2.41	2.596	93.0	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 12:31
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/24/12 14:56
Lab Samp ID: B189-07W	Dilution Factor: 1
Lab File ID: LB24014A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 7.9
Calib. Ref.: LB24010A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	0.56J	1.1	0.54
EFH(C12-C14)	ND	1.1	0.54
EFH(C15-C20)	ND	1.1	0.54
EFH(C21-C30)	0.65J	1.1	0.54
EFH(C30-C40)	ND	1.1	0.54
TOTAL EFH(C8-C40)	1.2	1.1	0.54

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	6.80	10.86	62.6	50-150
HEXACOSANE	2.56	2.714	94.4	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B189	Date Extracted: 02/23/12 12:31
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:02
Lab Samp ID: DSB026SB	Dilution Factor: 1
Lab File ID: LB23010A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : NA
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.59	10.00	75.9	50-150
HEXACOSANE	2.31	2.500	92.4	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB026SB	DSB026SL	DSB026SC		
LAB FILE ID:	LB23010A	LB23008A	LB23009A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:02	02/23/1216:28	02/23/1216:45	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23002A	LB23002A	LB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	50.0	45.0	90	50.0	53.7	107	18	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	8.02	80	10.0	8.50	85	50-150
Hexacosane	2.50	2.29	91	2.50	2.35	94	50-150

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 15:29
Sample ID: SL-186-SA7-SB-27.0-28.0	Date Analyzed: 02/25/12 07:30
Lab Samp ID: B189-02	Dilution Factor: 7.5
Lab File ID: KB24032A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24027A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	13	6.4|6.4
AROCLOR 1221	(ND)|ND	13	6.4|6.4
AROCLOR 1232	(ND)|ND	13	6.4|6.4
AROCLOR 1242	(ND)|ND	13	6.4|6.4
AROCLOR 1248	(ND)|ND	13	6.4|6.4
AROCLOR 1254	(ND)|ND	13	6.4|6.4
AROCLOR 1260	(ND)|ND	13	6.4|6.4
AROCLOR 1262	(ND)|ND	13	6.4|6.4
AROCLOR 1268	(ND)|ND	13	6.4|6.4
AROCLOR 5432	(ND)|ND	25	13|13
AROCLOR 5442	(ND)|ND	25	13|13
AROCLOR 5460	(ND)|ND	25	13|13

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(42.91)|31.24	40.00	(107)|78.1	45-120
TETRACHLORO-M-XYLENE	(44.79)|27.47	40.00	(112)|68.7	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 15:29
Sample ID: SL-188-SA7-SB-18.5-19.5	Date Analyzed: 02/25/12 08:25
Lab Samp ID: B189-04	Dilution Factor: 6.3
Lab File ID: KB24033A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24027A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	11	5.4|5.4
AROCLOR 1221	(ND)|ND	11	5.4|5.4
AROCLOR 1232	(ND)|ND	11	5.4|5.4
AROCLOR 1242	(ND)|ND	11	5.4|5.4
AROCLOR 1248	(ND)|ND	11	5.4|5.4
AROCLOR 1254	(ND)|ND	11	5.4|5.4
AROCLOR 1260	(ND)|ND	11	5.4|5.4
AROCLOR 1262	(ND)|ND	11	5.4|5.4
AROCLOR 1268	(ND)|ND	11	5.4|5.4
AROCLOR 5432	(ND)|ND	21	11|11
AROCLOR 5442	(ND)|ND	21	11|11
AROCLOR 5460	(ND)|ND	21	11|11

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(31.35)|19.29	33.60	(93.3)|57.4	45-120
TETRACHLORO-M-XYLENE	(35.10)|24.64	33.60	(104)|73.3	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 15:29
Sample ID: SL-188-SA7-SB-22.0-23.0	Date Analyzed: 02/25/12 09:20
Lab Samp ID: B189-06	Dilution Factor: 3.7
Lab File ID: KB24034A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24027A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	6.3	3.1|3.1
AROCLOR 1221	(ND)|ND	6.3	3.1|3.1
AROCLOR 1232	(ND)|ND	6.3	3.1|3.1
AROCLOR 1242	(ND)|ND	6.3	3.1|3.1
AROCLOR 1248	(ND)|ND	6.3	3.1|3.1
AROCLOR 1254	(ND)|ND	6.3	3.1|3.1
AROCLOR 1260	(ND)|ND	6.3	3.1|3.1
AROCLOR 1262	(ND)|ND	6.3	3.1|3.1
AROCLOR 1268	(ND)|ND	6.3	3.1|3.1
AROCLOR 5432	(ND)|ND	12	6.3|6.3
AROCLOR 5442	(ND)|ND	12	6.3|6.3
AROCLOR 5460	(ND)|ND	12	6.3|6.3

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(20.22)|14.65	19.73	(102)|74.2	45-120
TETRACHLORO-M-XYLENE	(20.03)|14.37	19.73	(101)|72.8	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
Batch No. : 12B189	Date Extracted: 02/23/12 15:29
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/25/12 10:15
Lab Samp ID: B189-07	Dilution Factor: 7.9
Lab File ID: KB24035A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24027A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	13	6.7|6.7
AROCLOR 1221	(ND)|ND	13	6.7|6.7
AROCLOR 1232	(ND)|ND	13	6.7|6.7
AROCLOR 1242	(ND)|ND	13	6.7|6.7
AROCLOR 1248	(ND)|ND	13	6.7|6.7
AROCLOR 1254	(ND)|ND	13	6.7|6.7
AROCLOR 1260	(ND)|ND	13	6.7|6.7
AROCLOR 1262	(ND)|ND	13	6.7|6.7
AROCLOR 1268	(ND)|ND	13	6.7|6.7
AROCLOR 5432	(ND)|ND	26	13|13
AROCLOR 5442	(ND)|ND	26	13|13
AROCLOR 5460	(ND)|ND	26	13|13

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(45.21)|32.73	42.13	(107)|77.7	45-120
TETRACHLORO-M-XYLENE	(44.56)|30.93	42.13	(106)|73.4	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B189	Date Extracted: 02/23/12 15:29
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:43
Lab Samp ID: 60B043SQ	Dilution Factor: 1
Lab File ID: KB24017A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.918)|4.323	5.333	(111)|81.1	45-120
TETRACHLORO-M-XYLENE	(5.940)|4.476	5.333	(111)|83.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60B043SQ	60B043SX	60B043SY		
LAB FILE ID:	KB24017A	KB24018A	KB24019A		
DATE EXTRACTED:	02/23/1215:29	02/23/1215:29	02/23/1215:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1217:43	02/24/1218:39	02/24/1219:34	DATE RECEIVED:	02/23/12
PREP. BATCH:	CPB043S	CPB043S	CPB043S		
CALIB. REF:	KB24012A	KB24012A	KB24012A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(66.9)|57.5	(100)|86	66.7	(62.7)|52.4	(94)|79	(6)|9	50-130	50
Aroclor 1260	(ND)|ND	66.7	(73.9)|55.8	(111)|84	66.7	(73.5)|55.0	(110)|82	(1)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(63.3)|53.5	(95)|80	66.7	(62.3)|52.8	(93)|79	(2)|1	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.880)|4.307	(110)|80.8	5.333	(5.911)|4.336	(111)|81.3	45-120
Tetrachloro-m-xylene	5.333	(5.964)|4.933	(112)|92.5	5.333	(5.889)|4.833	(110)|90.6	10-160

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/21/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
SDG NO.	: 12B189	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-186-SA7-SB-27.0-28.0	Date Analyzed	: 02/24/12 21:55
Lab Samp ID	: B189-02	Dilution Factor	: 0.976
Lab File ID	: 98B14082	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 7.5
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	8510	25.3	12.7
Antimony	0.116J	0.211	0.106
Arsenic	3.95	0.422	0.211
Barium	63.3	0.422	0.211
Beryllium	0.398	0.106	0.0528
Boron	ND	5.28	2.64
Cadmium	0.0935J	0.106	0.0528
Calcium	2060	21.1	10.6
Chromium	11.3	0.422	0.211
Cobalt	3.27	0.106	0.0528
Copper	4.73	0.422	0.211
Iron	17500	21.1	10.6
Lead	3.44	0.211	0.106
Magnesium	3410	10.6	5.28
Manganese	224	0.528	0.264
Molybdenum	0.770	0.106	0.0528
Nickel	6.66	0.422	0.211
Potassium	2670	63.3	31.7
Selenium	ND	0.422	0.211
Silver	ND	0.106	0.0528
Sodium	250	106	52.8
Strontium	9.75	0.528	0.264
Thallium	0.306	0.106	0.0528
Tin	ND	10.6	5.28
Titanium	905	1.06	0.528
Vanadium	22.3	0.106	0.0528
Zinc	52.2	3.17	1.58
Lithium	20.2	2.11	1.06
Phosphorus	363	12.7	6.33
Zirconium	ND	5.28	2.64

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/21/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
SDG NO.	: 12B189	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-188-SA7-SB-18.5-19.5	Date Analyzed	: 02/24/12 22:02
Lab Samp ID	: B189-04	Dilution Factor	: 0.976
Lab File ID	: 98B14083	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 6.3
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	9790	25.0	12.5
Antimony	0.127J	0.208	0.104
Arsenic	3.56	0.417	0.208
Barium	70.7	0.417	0.208
Beryllium	0.410	0.104	0.0521
Boron	ND	5.21	2.60
Cadmium	0.129	0.104	0.0521
Calcium	3110	20.8	10.4
Chromium	12.1	0.417	0.208
Cobalt	4.28	0.104	0.0521
Copper	5.80	0.417	0.208
Iron	17700	20.8	10.4
Lead	4.55	0.208	0.104
Magnesium	4000	10.4	5.21
Manganese	232	0.521	0.260
Molybdenum	0.324	0.104	0.0521
Nickel	7.60	0.417	0.208
Potassium	2750	62.5	31.2
Selenium	ND	0.417	0.208
Silver	ND	0.104	0.0521
Sodium	126	104	52.1
Strontium	14.3	0.521	0.260
Thallium	0.231	0.104	0.0521
Tin	ND	10.4	5.21
Titanium	881	1.04	0.521
Vanadium	26.1	0.104	0.0521
Zinc	52.1	3.12	1.56
Lithium	22.6	2.08	1.04
Phosphorus	278	12.5	6.25
Zirconium	ND	5.21	2.60

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/21/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/21/12
SDG NO.	: 12B189	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-188-SA7-SB-22.0-23.0	Date Analyzed	: 02/24/12 22:09
Lab Samp ID	: B189-06	Dilution Factor	: 0.905
Lab File ID	: 98B14084	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 3.7
Calib. Ref.	: 98B14075	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	8560	22.6	11.3
Antimony	0.172J	0.188	0.0940
Arsenic	5.77	0.376	0.188
Barium	68.1	0.376	0.188
Beryllium	0.419	0.0940	0.0470
Boron	ND	4.70	2.35
Cadmium	0.129	0.0940	0.0470
Calcium	2290	18.8	9.40
Chromium	14.4	0.376	0.188
Cobalt	5.05	0.0940	0.0470
Copper	8.04	0.376	0.188
Iron	18500	18.8	9.40
Lead	4.68	0.188	0.0940
Magnesium	4030	9.40	4.70
Manganese	230	0.470	0.235
Molybdenum	0.484	0.0940	0.0470
Nickel	11.4	0.376	0.188
Potassium	2840	56.4	28.2
Selenium	0.216J	0.376	0.188
Silver	ND	0.0940	0.0470
Sodium	163	94.0	47.0
Strontium	10.1	0.470	0.235
Thallium	0.344	0.0940	0.0470
Tin	ND	9.40	4.70
Titanium	898	0.940	0.470
Vanadium	27.5	0.0940	0.0470
Zinc	56.2	2.82	1.41
Lithium	27.2	1.88	0.940
Phosphorus	387	11.3	5.64
Zirconium	ND	4.70	2.35

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: 02/21/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/21/12
SDG NO. : 12B189	Date Extracted: 02/24/12 15:03
Sample ID: DUP10-SA7-QC-022112	Date Analyzed: 02/24/12 22:16
Lab Samp ID: B189-07	Dilution Factor: 0.917
Lab File ID: 98B14085	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : 7.9
Calib. Ref.: 98B14075	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	8010	23.9	11.9
Antimony	0.110J	0.199	0.0996
Arsenic	3.86	0.398	0.199
Barium	57.9	0.398	0.199
Beryllium	0.364	0.0996	0.0498
Boron	ND	4.98	2.49
Cadmium	0.0820J	0.0996	0.0498
Calcium	1890	19.9	9.96
Chromium	11.4	0.398	0.199
Cobalt	3.02	0.0996	0.0498
Copper	4.63	0.398	0.199
Iron	15800	19.9	9.96
Lead	3.20	0.199	0.0996
Magnesium	3120	9.96	4.98
Manganese	213	0.498	0.249
Molybdenum	0.733	0.0996	0.0498
Nickel	6.58	0.398	0.199
Potassium	2450	59.7	29.9
Selenium	ND	0.398	0.199
Silver	ND	0.0996	0.0498
Sodium	254	99.6	49.8
Strontium	9.04	0.498	0.249
Thallium	0.282	0.0996	0.0498
Tin	ND	9.96	4.98
Titanium	826	0.996	0.498
Vanadium	21.1	0.0996	0.0498
Zinc	47.1	2.99	1.49
Lithium	18.1	1.99	0.996
Phosphorus	323	11.9	5.97
Zirconium	ND	4.98	2.49

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B189	Date Extracted: 02/24/12 15:03
Sample ID: MBLK1S	Date Analyzed: 02/24/12 19:55
Lab Samp ID: IMB023SB	Dilution Factor: 1
Lab File ID: 98B14065	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : NA
Calib. Ref.: 98B14063	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B189
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB023SB	IMB023SL	IMB023SC		
LAB FILE ID:	98B14065	98B14066	98B14067		
DATIME EXTRCTD:	02/24/1215:03	02/24/1215:03	02/24/1215:03	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1219:55	02/24/1220:02	02/24/1220:09	DATE RECEIVED:	02/24/12
PREP. BATCH:	NA	NA	NA		
CALIB. REF:	98B14063	98B14063	98B14063		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2550	102	2500	2630	105	3	80-120	20
Antimony	ND	25.0	24.9	100	25.0	24.9	99	0	80-120	20
Arsenic	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Barium	ND	25.0	24.6	98	25.0	24.6	98	0	80-120	20
Beryllium	ND	25.0	25.0	100	25.0	24.9	99	0	80-120	20
Boron	ND	25.0	25.3	101	25.0	25.1	100	1	80-120	20
Cadmium	ND	25.0	24.6	99	25.0	24.6	98	0	80-120	20
Calcium	ND	2500	2540	102	2500	2550	102	0	80-120	20
Chromium	ND	25.0	24.5	98	25.0	25.0	100	2	80-120	20
Cobalt	ND	25.0	24.6	98	25.0	24.9	100	1	80-120	20
Copper	ND	25.0	24.2	97	25.0	24.7	99	2	80-120	20
Iron	ND	2500	2590	104	2500	2630	105	1	80-120	20
Lead	ND	25.0	24.6	98	25.0	24.8	99	1	80-120	20
Magnesium	ND	2500	2530	101	2500	2580	103	2	80-120	20
Manganese	ND	25.0	24.8	99	25.0	25.1	100	1	80-120	20
Molybdenum	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	25.2	101	5	80-120	20
Potassium	ND	2500	2610	104	2500	2640	106	1	80-120	20
Selenium	ND	25.0	25.0	100	25.0	25.3	101	1	80-120	20
Silver	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Sodium	ND	2500	2470	99	2500	2460	98	1	80-120	20
Strontium	ND	25.0	25.6	102	25.0	25.4	102	1	80-120	20
Thallium	ND	25.0	24.9	100	25.0	25.2	101	1	80-120	20
Tin	ND	25.0	27.0	108	25.0	27.0	108	0	80-120	20
Titanium	ND	25.0	24.8	99	25.0	25.2	101	2	80-120	20
Vanadium	ND	25.0	24.6	98	25.0	25.0	100	2	80-120	20
Zinc	ND	50.0	47.4	95	50.0	47.8	96	1	80-120	20
Lithium	ND	25.0	25.3	101	25.0	25.3	101	0	80-120	20
Phosphorus	ND	250	244	97	250	249	100	2	80-120	20
Zirconium	ND	25.0	26.7	107	25.0	26.5	106	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B189
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.976 0.976
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03W B201-03A
LAB FILE ID: 98B17031 98B17030
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/29/1213:22 02/29/1213:18 DATE RECEIVED: 02/22/12
PREP. BATCH: NA NA
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	8530	2600	11000	96	75-125
Antimony	0.195J	26.0	25.2	96	75-125
Arsenic	3.17	26.0	26.9	91	75-125
Barium	76.7	26.0	101	93	75-125
Beryllium	0.358	26.0	24.8	94	75-125
Boron	30.0	26.0	53.7	91	75-125
Cadmium	0.165	26.0	24.9	95	75-125
Calcium	9560	2600	11900	90	75-125
Chromium	21.4	26.0	44.1	87	75-125
Cobalt	4.34	26.0	27.6	89	75-125
Copper	7.00	26.0	28.7	83	75-125
Iron	20000	2600	22200	85	75-125
Lead	52.5	26.0	75.7	89	75-125
Magnesium	3300	2600	5690	92	75-125
Manganese	302	26.0	324	84	75-125
Molybdenum	2.55	26.0	27.6	96	75-125
Nickel	8.49	26.0	30.5	85	75-125
Potassium	2680	2600	5200	97	75-125
Selenium	ND	26.0	24.6	94	75-125
Silver	ND	26.0	24.0	92	75-125
Sodium	374	2600	2760	92	75-125
Strontium	34.7	26.0	59.2	94	75-125
Thallium	0.230	26.0	24.9	95	75-125
Tin	ND	26.0	28.3	109	75-125
Titanium	831	26.0	857	100	75-125
Vanadium	28.7	26.0	52.0	89	75-125
Zinc	56.0	52.1	103	89	75-125
Lithium	18.3	26.0	43.0	95	75-125
Phosphorus	401	260	640	92	75-125
Zirconium	ND	26.0	28.3	109	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 0.976 4.88
SAMPLE ID: SL-187-SA7-SB- SL-187-SA7-SB-
EMAX SAMP ID: B201-03W B201-03J
LAB FILE ID: 98B17031 98B17035
DATE EXTRACTED: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/29/1213:22 02/29/1213:40 DATE RECEIVED: 02/22/12
PREP. BATCH: IMB023S IMB023S
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	8530	8920	5	10
Antimony	0.195J	ND	NA	10
Arsenic	3.17	3.31	4	10
Barium	76.7	72.1	6	10
Beryllium	0.358	0.364J	NA	10
Boron	30.0	29.3	2	10
Cadmium	0.165	ND	NA	10
Calcium	9560	9930	4	10
Chromium	21.4	21.9	2	10
Cobalt	4.34	4.54	5	10
Copper	7.00	7.43	6	10
Iron	20000	21100	5	10
Lead	52.5	52.6	0	10
Magnesium	3300	3450	5	10
Manganese	302	322	7	10
Molybdenum	2.55	2.44	4	10
Nickel	8.49	8.78	3	10
Potassium	2680	2680	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	374	323J	NA	10
Strontium	34.7	34.1	2	10
Thallium	0.230	ND	NA	10
Tin	ND	ND	0	10
Titanium	831	842	1	10
Vanadium	28.7	29.2	2	10
Zinc	56.0	58.0	3	10
Lithium	18.3	16.6	9	10
Phosphorus	401	385	4	10
Zirconium	ND	ND	0	10

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB024SB	ND	1	NA	0.100	0.0500	02/28/1215:46	02/28/1212:17	M47B020010	M47B020008	HGB024S	NA	02/28/12
LCS1S	HGB024SL	0.860	1	NA	0.100	0.0500	02/28/1215:48	02/28/1212:17	M47B020011	M47B020008	HGB024S	NA	02/28/12
LCD1S	HGB024SC	0.863	1	NA	0.100	0.0500	02/28/1215:51	02/28/1212:17	M47B020012	M47B020008	HGB024S	NA	02/28/12
SL-186-SA7-SB-27.0-28.0	B189-02	ND	1.00	7.5	0.108	0.0541	02/28/1216:14	02/28/1212:17	M47B020023	M47B020020	HGB024S	02/21/12	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	ND	0.992	6.3	0.106	0.0529	02/28/1216:16	02/28/1212:17	M47B020024	M47B020020	HGB024S	02/21/12	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	ND	0.985	3.7	0.102	0.0511	02/28/1216:18	02/28/1212:17	M47B020025	M47B020020	HGB024S	02/21/12	02/21/12
DUP10-SA7-QC-022112	B189-07	ND	0.988	7.9	0.107	0.0536	02/28/1216:20	02/28/1212:17	M47B020026	M47B020020	HGB024S	02/21/12	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B189
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB024SB	HGB024SL	HGB024SC		
LAB FILE ID:	M47B020010	M47B020011	M47B020012		
DATIME EXTRCTD:	02/28/1212:17	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	NA
DATIME ANALYZD:	02/28/1215:46	02/28/1215:48	02/28/1215:51	DATE RECEIVED:	02/28/12
PREP. BATCH:	HGB024S	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008	M47B020008		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.86	103	.833	.863	104	0	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B189
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	6.3
DILTN FACTR:	0.985	0.985		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5			
CONTROL NO.:	B201-03	B201-03A		
LAB FILE ID:	M47B020014	M47B020013		
DATIME EXTRCTD:	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	02/22/12
DATIME ANALYZD:	02/28/1215:55	02/28/1215:53	DATE RECEIVED:	02/22/12
PREP. BATCH:	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.876	.895	102	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	6.3
DILUTION FACTOR:	0.985	4.93		
SAMPLE ID:	SL-187-SA7-SB-27.5-	SL-187-SA7-SB-27.5-		
EMAX SAMP ID:	B201-03	B201-03J		
LAB FILE ID:	M47B020014	M47B020015		
DATE EXTRACTED:	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	02/22/12
DATE ANALYZED:	02/28/1215:55	02/28/1215:57	DATE RECEIVED:	02/22/12
PREP. BATCH:	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : I100

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.00	0.500	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	6.07	1	NA	1.00	0.500	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	6.07	1	NA	1.00	0.500	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-186-SA7-SB-27.0-28.0	B189-02	4.33	1	7.5	1.08	0.541	02/24/1212:53	02/23/1214:29	AB35-18	AB35-13	ICB005S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	1.49	1	6.3	1.07	0.534	02/24/1213:10	02/23/1214:29	AB35-19	AB35-13	ICB005S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	2.41	1	3.7	1.04	0.519	02/24/1213:26	02/23/1214:29	AB35-20	AB35-13	ICB005S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	4.58	1	7.9	1.09	0.543	02/24/1213:42	02/23/1214:29	AB35-21	AB35-13	ICB005S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	6.07	101	6.00	6.07	101	0	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.50	0.750	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	19.9	1	NA	1.50	0.750	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	20.0	1	NA	1.50	0.750	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-186-SA7-SB-27.0-28.0	B189-02	ND	1	7.5	1.62	0.811	02/24/1212:53	02/23/1214:29	AB35-18	AB35-13	ICB005S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	ND	1	6.3	1.60	0.800	02/24/1213:10	02/23/1214:29	AB35-19	AB35-13	ICB005S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	ND	1	3.7	1.56	0.779	02/24/1213:26	02/23/1214:29	AB35-20	AB35-13	ICB005S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	ND	1	7.9	1.63	0.814	02/24/1213:42	02/23/1214:29	AB35-21	AB35-13	ICB005S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.9	101	19.7	20.0	101	0	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.50	0.750	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	26.4	1	NA	1.50	0.750	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	26.5	1	NA	1.50	0.750	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-186-SA7-SB-27.0-28.0	B189-02	1.41J	1	7.5	1.62	0.811	02/24/1212:53	02/23/1214:29	AB35-18	AB35-13	ICB005S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	7.98	1	6.3	1.60	0.800	02/24/1213:10	02/23/1214:29	AB35-19	AB35-13	ICB005S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	1.73	1	3.7	1.56	0.779	02/24/1213:26	02/23/1214:29	AB35-20	AB35-13	ICB005S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	1.55J	1	7.9	1.63	0.814	02/24/1213:42	02/23/1214:29	AB35-21	AB35-13	ICB005S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.4	99	26.6	26.5	100	0	90-110	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB005SB	ND	1	NA	20.0	10.0	02/23/1216:15	02/23/1214:30	JB23003	JB23002	PCB005S	NA	02/23/12
LCS1S	PCB005SL	247	1	NA	20.0	10.0	02/23/1216:57	02/23/1214:30	JB23005	JB23002	PCB005S	NA	02/23/12
LCD1S	PCB005SC	252	1	NA	20.0	10.0	02/23/1217:18	02/23/1214:30	JB23006	JB23002	PCB005S	NA	02/23/12
SL-186-SA7-SB-27.0-28.0	B189-02	ND	1	7.5	21.6	10.8	02/23/1219:12	02/23/1214:30	JB23011	JB23002	PCB005S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	ND	1	6.3	21.3	10.7	02/23/1220:15	02/23/1214:30	JB23014	JB23013	PCB005S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	ND	1	3.7	20.8	10.4	02/23/1220:36	02/23/1214:30	JB23015	JB23013	PCB005S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	ND	1	7.9	21.7	10.9	02/23/1220:57	02/23/1214:30	JB23016	JB23013	PCB005S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB005SB	PCB005SL	PCB005SC		
LAB FILE ID:	JB23003	JB23005	JB23006		
DATE EXTRACTED:	02/23/1214:30	02/23/1214:30	02/23/1214:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1216:15	02/23/1216:57	02/23/1217:18	DATE RECEIVED:	02/23/12
PREP. BATCH:	PCB005S	PCB005S	PCB005S		
CALIB. REF:	JB23002	JB23002	JB23002		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	247	99	250	252	101	2	85-115	15

METHOD 6850
PERCHLORATE BY LC/MS

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : G0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PLC001SB	ND	1	NA	5.00	2.50	03/02/1215:36	03/02/1211:32	NC03004	NC03003	PLC001S	NA	03/02/12
LCS1S	PLC001SL	25.7	1	NA	5.00	2.50	03/02/1215:50	03/02/1211:32	NC03005	NC03003	PLC001S	NA	03/02/12
LCD1S	PLC001SC	26.9	1	NA	5.00	2.50	03/02/1216:04	03/02/1211:32	NC03006	NC03003	PLC001S	NA	03/02/12
SL-188-SA7-SB-22.0-23.0	B189-06	ND	1	3.7	5.19	2.60	03/02/1216:33	03/02/1211:32	NC03008	NC03003	PLC001S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	ND	1	7.9	5.43	2.71	03/02/1217:01	03/02/1211:32	NC03010	NC03003	PLC001S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: METHOD 6850

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PLC001SB	PLC001SL	PLC001SC		
LAB FILE ID:	NC03004	NC03005	NC03006		
DATE EXTRACTED:	03/02/1211:32	03/02/1211:32	03/02/1211:32	DATE COLLECTED:	NA
DATE ANALYZED:	03/02/1215:36	03/02/1215:50	03/02/1216:04	DATE RECEIVED:	03/02/12
PREP. BATCH:	PLC001S	PLC001S	PLC001S		
CALIB. REF:	NC03003	NC03003	NC03003		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.7	103	25.0	26.9	108	5	85-115	15

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB003SB	ND	1	NA	1.00	0.500	02/24/1210:50	02/23/1214:07	IB24003	IB24001	HCB003S	NA	02/23/12
MBLK1S	HCB003SQ	ND	1	NA	1.00	0.500	02/24/1211:00	02/23/1214:07	IB24004	IB24001	HCB003S	NA	02/23/12
LCS1S	CSB003SL	8.61	1	NA	1.00	0.500	02/24/1211:21	02/23/1214:07	IB24005	IB24001	CSB003S	NA	02/23/12
LCS1S	CSB003SX	9.61	1	NA	1.00	0.500	02/24/1211:31	02/23/1214:07	IB24006	IB24001	CSB003S	NA	02/23/12
LCS2S	CIB003SL	194	20	NA	20.0	10.0	02/24/1211:42	02/23/1214:07	IB24007	IB24001	CIB003S	NA	02/23/12
LCS2S	CIB003SX	200	20	NA	20.0	10.0	02/24/1211:52	02/23/1214:07	IB24008	IB24001	CIB003S	NA	02/23/12
SL-186-SA7-SB-27.0-28.0	B189-02	ND	1	7.5	1.08	0.541	02/24/1222:22	02/23/1214:07	IB24051	IB24043	CIB003S	02/21/1216:23	02/21/12
SL-186-SA7-SB-27.0-28.0	B189-02R	ND	1	7.5	1.08	0.541	02/24/1222:32	02/23/1214:07	IB24052	IB24043	CIB003S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	ND	1	6.3	1.07	0.534	02/24/1222:43	02/23/1214:07	IB24053	IB24043	CIB003S	02/21/1209:00	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04R	ND	1	6.3	1.07	0.534	02/24/1222:53	02/23/1214:07	IB24054	IB24043	CIB003S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	ND	1	3.7	1.04	0.519	02/24/1223:24	02/23/1214:07	IB24057	IB24055	CIB003S	02/21/1210:32	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06R	ND	1	3.7	1.04	0.519	02/24/1223:35	02/23/1214:07	IB24058	IB24055	CIB003S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	ND	1	7.9	1.09	0.543	02/24/1223:45	02/23/1214:07	IB24059	IB24055	CIB003S	02/21/1216:25	02/21/12
DUP10-SA7-QC-022112	B189-07R	ND	1	7.9	1.09	0.543	02/24/1223:55	02/23/1214:07	IB24060	IB24055	CIB003S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SB CIB003SL
LAB FILE ID: IB24003 IB24007
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1210:50 02/24/1211:42 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	194	82	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SQ CIB003SX
LAB FILE ID: IB24004 IB24008
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1211:00 02/24/1211:52 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	200	85	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SB	CSB003SL		
LAB FILE ID:	IB24003	IB24005		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:50	02/24/1211:21	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.62	86	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B189
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SQ	CSB003SX		
LAB FILE ID:	IB24004	IB24006		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1211:00	02/24/1211:31	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	9.61	96	80-120

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B189

Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-186-SA7-SB-27.0-28.0	B189-02	8.11	1	7.5	NA	NA	02/22/1212:20	02/22/1212:20	12PHB003S01	PHB003S	PHB003S	02/21/1216:23	02/21/12
SL-188-SA7-SB-18.5-19.5	B189-04	8.46	1	6.3	NA	NA	02/22/1212:22	02/22/1212:20	12PHB003S02	PHB003S	PHB003S	02/21/1209:00	02/21/12
SL-188-SA7-SB-22.0-23.0	B189-06	8.06	1	3.7	NA	NA	02/22/1212:27	02/22/1212:20	12PHB003S03	PHB003S	PHB003S	02/21/1210:32	02/21/12
DUP10-SA7-QC-022112	B189-07	8.14	1	7.9	NA	NA	02/22/1212:29	02/22/1212:20	12PHB003S04	PHB003S	PHB003S	02/21/1216:25	02/21/12
DUP10-SA7-QC-022112DUP	B189-07D	8.14	1	7.9	NA	NA	02/22/1212:32	02/22/1212:20	12PHB003S05	PHB003S	PHB003S	02/21/1216:25	02/21/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B189 DATE RECEIVED: 02/21/12
SAMPLE ID: DUP10-SA7-QC-022112DUP DATE EXTRACTED: 02/22/12 12:20
CONTROL NO.: B189-07D DATE ANALYZED: 02/22/12 12:32

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	8.14	8.14	0	0.100

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:15
Sample ID: EB-SA7-SB-022212	Date Analyzed: 02/29/12 14:56
Lab Samp ID: B201-01	Dilution Factor: 1.05
Lab File ID: RBJ221	Matrix : WATER
Ext Btch ID: SVB036W	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	11	5.2
1,2-DICHLOROBENZENE	ND	11	5.2
1,3-DICHLOROBENZENE	ND	11	5.2
1,4-DICHLOROBENZENE	ND	11	5.2
2,4,5-TRICHLOROPHENOL	ND	11	5.2
2,4,6-TRICHLOROPHENOL	ND	11	5.2
2,4-DICHLOROPHENOL	ND	11	5.2
2,4-DIMETHYLPHENOL	ND	11	5.2
2,4-DINITROPHENOL	ND	21	5.2
2,4-DINITROTOLUENE	ND	11	5.2
2,6-DINITROTOLUENE	ND	11	5.2
2-CHLORONAPHTHALENE	ND	11	5.2
2-CHLOROPHENOL	ND	11	5.2
2-METHYLNAPHTHALENE	ND	11	5.2
2-METHYLPHENOL	ND	11	5.2
2-NITROANILINE	ND	11	5.2
2-NITROPHENOL	ND	11	5.2
3,3'-DICHLOROBENZIDINE	ND	11	5.2
3-NITROANILINE	ND	11	5.2
4,6-DINITRO-2-METHYLPHENOL	ND	21	5.2
4-BROMOPHENYL-PHENYLETHER	ND	11	5.2
4-CHLORO-3-METHYLPHENOL	ND	11	5.2
4-CHLOROANILINE	ND	11	5.2
4-CHLOROPHENYL-PHENYLETHER	ND	11	5.2
4-METHYLPHENOL (1)	ND	11	5.2
4-NITROANILINE	ND	11	5.2
4-NITROPHENOL	ND	21	5.2
ACENAPHTHENE	ND	11	5.2
ACENAPHTHYLENE	ND	11	5.2
ANTHRACENE	ND	11	5.2
BENZO(A)ANTHRACENE	ND	11	5.2
BENZO(A)PYRENE	ND	11	5.2
BENZO(B)FLUORANTHENE	ND	11	5.2
BENZO(K)FLUORANTHENE	ND	11	5.2
BENZO(G,H,I)PERYLENE	ND	11	5.2
BIS(2-CHLOROETHOXY)METHANE	ND	11	5.2
BIS(2-CHLOROETHYL)ETHER	ND	11	5.2
BIS(2-CHLOROISOPROPYL)ETHER	ND	11	5.2
BIS(2-ETHYLHEXYL)PHTHALATE	ND	21	5.2
BUTYLBENZYLPHTHALATE	ND	11	5.2
CHRYSENE	ND	11	5.2
DI-N-BUTYLPHTHALATE	ND	11	5.2
DI-N-OCTYLPHTHALATE	ND	11	5.2
DIBENZO(A,H)ANTHRACENE	ND	11	5.2
DIBENZOFURAN	ND	11	5.2
DIETHYLPHTHALATE	ND	11	5.2
DIMETHYLPHTHALATE	ND	11	5.2
FLUORANTHENE	ND	11	5.2
FLUORENE	ND	11	5.2
HEXACHLOROBENZENE	ND	11	5.2
HEXACHLOROBUTADIENE	ND	11	5.2
HEXACHLOROCYCLOPENTADIENE	ND	21	5.2
HEXACHLOROETHANE	ND	11	5.2
INDENO(1,2,3-CD)PYRENE	ND	11	5.2
ISOPHORONE	ND	11	5.2
N-NITROSO-DI-N-PROPYLAMINE	ND	11	5.2
N-NITROSODIPHENYLAMINE (2)	ND	11	5.2
NAPHTHALENE	ND	11	5.2
NITROBENZENE	ND	11	5.2
PENTACHLOROPHENOL	ND	21	5.2
PHENANTHRENE	ND	11	5.2
PHENOL	ND	11	5.2
PYRENE	ND	11	5.2
BENZYL ALCOHOL	ND	11	5.2
1-METHYLNAPHTHALENE	ND	11	5.2
1,2-DIPHENYLHYDRAZINE	ND	11	5.2
3,5-DIMETHYLPHENOL	ND	21	5.2
ANILINE	ND	21	11
BENZIDINE	ND	52	21
BENZOIC ACID	ND	42	21
CARBAZOLE	ND	11	5.2
N-NITROSODIMETHYLAMINE	ND	11	5.2
TETRALIN	ND	11	11
2-BUTOXYETHANOL	ND	11	11
2-PHENOXYETHANOL	ND	11	11

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	38.4	63.00	61.0	30-130
2-FLUOROBIPHENYL	10.8	21.00	51.6	45-130
2-FLUOROPHENOL	31.3	63.00	49.7	20-130
NITROBENZENE-D5	10.9	21.00	52.1	40-130
PHENOL-D5	31.8	63.00	50.5	20-120
TERPHENYL-D14	18.3	21.00	86.9	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/27/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:15
Sample ID: MBLK1W	Date Analyzed: 02/29/12 12:46
Lab Samp ID: SVB036WB	Dilution Factor: 1
Lab File ID: RBJ214	Matrix : WATER
Ext Btch ID: SVB036W	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5.0
1,2-DICHLOROBENZENE	ND	10	5.0
1,3-DICHLOROBENZENE	ND	10	5.0
1,4-DICHLOROBENZENE	ND	10	5.0
2,4,5-TRICHLOROPHENOL	ND	10	5.0
2,4,6-TRICHLOROPHENOL	ND	10	5.0
2,4-DICHLOROPHENOL	ND	10	5.0
2,4-DIMETHYLPHENOL	ND	10	5.0
2,4-DINITROPHENOL	ND	20	5.0
2,4-DINITROTOLUENE	ND	10	5.0
2,6-DINITROTOLUENE	ND	10	5.0
2-CHLORONAPHTHALENE	ND	10	5.0
2-CHLOROPHENOL	ND	10	5.0
2-METHYLNAPHTHALENE	ND	10	5.0
2-METHYLPHENOL	ND	10	5.0
2-NITROANILINE	ND	10	5.0
2-NITROPHENOL	ND	10	5.0
3,3'-DICHLOROBENZIDINE	ND	10	5.0
3-NITROANILINE	ND	10	5.0
4,6-DINITRO-2-METHYLPHENOL	ND	20	5.0
4-BROMOPHENYL-PHENYLETHER	ND	10	5.0
4-CHLORO-3-METHYLPHENOL	ND	10	5.0
4-CHLOROANILINE	ND	10	5.0
4-CHLOROPHENYL-PHENYLETHER	ND	10	5.0
4-METHYLPHENOL (1)	ND	10	5.0
4-NITROANILINE	ND	10	5.0
4-NITROPHENOL	ND	20	5.0
ACENAPHTHENE	ND	10	5.0
ACENAPHTHYLENE	ND	10	5.0
ANTHRACENE	ND	10	5.0
BENZO(A)ANTHRACENE	ND	10	5.0
BENZO(A)PYRENE	ND	10	5.0
BENZO(B)FLUORANTHENE	ND	10	5.0
BENZO(K)FLUORANTHENE	ND	10	5.0
BENZO(G,H,I)PERYLENE	ND	10	5.0
BIS(2-CHLOROETHOXY)METHANE	ND	10	5.0
BIS(2-CHLOROETHYL)ETHER	ND	10	5.0
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5.0
BIS(2-ETHYLHEXYL)PHTHALATE	ND	20	5.0
BUTYLBENZYLPHTHALATE	ND	10	5.0
CHRYSENE	ND	10	5.0
DI-N-BUTYLPHTHALATE	ND	10	5.0
DI-N-OCTYLPHTHALATE	ND	10	5.0
DIBENZO(A,H)ANTHRACENE	ND	10	5.0
DIBENZOFURAN	ND	10	5.0
DIETHYLPHTHALATE	ND	10	5.0
DIMETHYLPHTHALATE	ND	10	5.0
FLUORANTHENE	ND	10	5.0
FLUORENE	ND	10	5.0
HEXACHLOROBENZENE	ND	10	5.0
HEXACHLOROBUTADIENE	ND	10	5.0
HEXACHLOROCYCLOPENTADIENE	ND	20	5.0
HEXACHLOROETHANE	ND	10	5.0
INDENO(1,2,3-CD)PYRENE	ND	10	5.0
ISOPHORONE	ND	10	5.0
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5.0
N-NITROSODIPHENYLAMINE (2)	ND	10	5.0
NAPHTHALENE	ND	10	5.0
NITROBENZENE	ND	10	5.0
PENTACHLOROPHENOL	ND	20	5.0
PHENANTHRENE	ND	10	5.0
PHENOL	ND	10	5.0
PYRENE	ND	10	5.0
BENZYL ALCOHOL	ND	10	5.0
1-METHYLNAPHTHALENE	ND	10	5.0
1,2-DIPHENYLHYDRAZINE	ND	10	5.0
3,5-DIMETHYLPHENOL	ND	20	5.0
ANILINE	ND	20	10
BENZIDINE	ND	50	20
BENZOIC ACID	ND	40	20
CARBAZOLE	ND	10	5.0
N-NITROSODIMETHYLAMINE	ND	10	5.0
TETRALIN	ND	10	10
2-BUTOXYETHANOL	ND	10	10
2-PHENOXYETHANOL	ND	10	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	48.1	60.00	80.1	30-130
2-FLUOROBIPHENYL	13.9	20.00	69.4	45-130
2-FLUOROPHENOL	38.2	60.00	63.6	20-130
NITROBENZENE-D5	13.6	20.00	67.8	40-130
PHENOL-D5	38.8	60.00	64.6	20-120
TERPHENYL-D14	19.4	20.00	96.9	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3520C/8270C

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: SVB036WB SVB036WL SVB036WC
LAB FILE ID: RBJ214 RBJ215 RBJ216
DATE EXTRACTED: 02/27/1211:15 02/27/1211:15 02/27/1211:15 DATE COLLECTED: NA
DATE ANALYZED: 02/29/1212:46 02/29/1213:04 02/29/1213:23 DATE RECEIVED: 02/27/12
PREP. BATCH: SVB036W SVB036W SVB036W
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	40.0	29.1	73	40.0	27.3	68	6	30-130	30
1,2-Dichlorobenzene	ND	40.0	30.1	75	40.0	28.7	72	5	30-130	30
1,3-Dichlorobenzene	ND	40.0	29.7	74	40.0	28.0	70	6	30-130	30
1,4-Dichlorobenzene	ND	40.0	30.1	75	40.0	28.1	70	7	30-130	30
2,4,5-Trichlorophenol	ND	40.0	35.1	88	40.0	29.6	74	17	30-130	30
2,4,6-Trichlorophenol	ND	40.0	33.7	84	40.0	31.0	77	9	30-130	30
2,4-Dichlorophenol	ND	40.0	31.2	78	40.0	28.9	72	7	40-130	30
2,4-Dimethylphenol	ND	40.0	31.3	78	40.0	28.9	72	8	30-130	30
2,4-Dinitrophenol	ND	40.0	31.2	78	40.0	28.2	70	10	30-130	30
2,4-Dinitrotoluene	ND	40.0	37.0	93	40.0	34.1	85	8	40-130	30
2,6-Dinitrotoluene	ND	40.0	35.7	89	40.0	32.5	81	9	40-130	30
2-Chloronaphthalene	ND	40.0	34.5	86	40.0	34.5	86	0	40-130	30
2-Chlorophenol	ND	40.0	29.9	75	40.0	30.1	75	1	30-130	30
2-Methylnaphthalene	ND	40.0	33.7	84	40.0	31.2	78	8	40-130	30
2-Methylphenol	ND	40.0	31.4	79	40.0	28.7	72	9	30-130	30
2-Nitroaniline	ND	40.0	33.9	85	40.0	31.7	79	7	40-130	30
2-Nitrophenol	ND	40.0	32.9	82	40.0	31.0	77	6	40-130	30
3,3'-Dichlorobenzidine	ND	40.0	35.2	88	40.0	33.1	83	6	20-140	30
3-Nitroaniline	ND	40.0	31.5	79	40.0	29.5	74	7	30-130	30
4,6-Dinitro-2-Methylphenol	ND	40.0	37.0	93	40.0	35.1	88	6	40-130	30
4-Bromophenyl-phenylether	ND	40.0	36.6	91	40.0	33.5	84	9	50-130	30
4-Chloro-3-Methylphenol	ND	40.0	31.7	79	40.0	29.9	75	6	30-130	30
4-Chloroaniline	ND	40.0	28.2	70	40.0	26.5	66	6	30-130	30
4-Chlorophenyl-phenylether	ND	40.0	33.2	83	40.0	31.0	77	7	50-130	30
4-Methylphenol	ND	40.0	32.9	82	40.0	30.8	77	7	30-130	30
4-Nitroaniline	ND	40.0	32.4	81	40.0	29.1	73	11	30-130	30
4-Nitrophenol	ND	40.0	29.3	73	40.0	27.1	68	8	30-130	30
Acenaphthene	ND	40.0	34.8	87	40.0	31.4	79	10	40-130	30
Acenaphthylene	ND	40.0	35.0	88	40.0	31.9	80	9	40-130	30
Anthracene	ND	40.0	34.9	87	40.0	33.2	83	5	50-130	30
Benzo(a)anthracene	ND	40.0	36.2	90	40.0	34.4	86	5	50-130	30
Benzo(a)pyrene	ND	40.0	35.6	89	40.0	33.0	83	7	50-130	30
Benzo(b)fluoranthene	ND	40.0	38.3	96	40.0	34.5	86	10	40-140	30
Benzo(k)fluoranthene	ND	40.0	36.9	92	40.0	35.4	89	4	40-130	30
Benzo(g,h,i)perylene	ND	40.0	38.5	96	40.0	35.1	88	9	40-130	30
bis(2-Chloroethoxy)methane	ND	40.0	30.9	77	40.0	28.9	72	6	40-130	30
bis(2-Chloroethyl)ether	ND	40.0	30.8	77	40.0	28.7	72	7	30-130	30
bis(2-Chloroisopropyl)ether	ND	40.0	31.4	79	40.0	30.0	75	5	20-130	30
bis(2-Ethylhexyl)phthalate	ND	40.0	41.9	105	40.0	39.8	99	5	20-140	30
Butylbenzylphthalate	ND	40.0	41.2	103	40.0	39.6	99	4	40-130	30
Chrysene	ND	40.0	37.1	93	40.0	35.2	88	5	40-130	30
Di-n-butylphthalate	ND	40.0	39.9	100	40.0	37.3	93	7	30-160	30
Di-n-octylphthalate	ND	40.0	42.1	105	40.0	38.9	97	8	20-150	30
Dibenzo(a,h)anthracene	ND	40.0	38.0	95	40.0	34.8	87	9	40-130	30
Dibenzofuran	ND	40.0	33.9	85	40.0	30.8	77	10	40-130	30
Diethylphthalate	ND	40.0	36.8	92	40.0	34.5	86	7	30-140	30
Dimethylphthalate	ND	40.0	35.6	89	40.0	33.7	84	6	30-130	30
Fluoranthene	ND	40.0	37.9	95	40.0	35.8	90	6	40-130	30

Fluorene	ND	40.0	34.8	87	40.0	32.5	81	7	40-130	30
Hexachlorobenzene	ND	40.0	36.8	92	40.0	34.8	87	6	30-130	30
Hexachlorobutadiene	ND	40.0	30.6	77	40.0	28.4	71	7	10-130	30
Hexachlorocyclopentadiene	ND	40.0	21.8	55	40.0	20.1	50	8	10-130	30
Hexachloroethane	ND	40.0	30.4	76	40.0	28.5	71	7	20-130	30
Indeno(1,2,3-cd)pyrene	ND	40.0	38.3	96	40.0	35.1	88	9	50-130	30
Isophorone	ND	40.0	33.9	85	40.0	31.0	78	9	40-130	30
n-Nitroso-di-n-propylamine	ND	40.0	32.5	81	40.0	29.2	73	11	30-130	30
n-Nitrosodiphenylamine	ND	40.0	27.6	69	40.0	26.4	66	4	10-150	30
Naphthalene	ND	40.0	32.0	80	40.0	30.0	75	6	20-130	30
Nitrobenzene	ND	40.0	30.7	77	40.0	32.4	81	5	30-130	30
Pentachlorophenol	ND	40.0	30.8	77	40.0	30.0	75	3	30-130	30
Phenanthrene	ND	40.0	36.2	90	40.0	34.5	86	5	40-130	30
Phenol	ND	40.0	29.2	73	40.0	28.1	70	4	20-130	30
Pyrene	ND	40.0	35.6	89	40.0	34.2	86	4	40-130	30
Benzyl Alcohol	ND	40.0	33.3	83	40.0	31.7	79	5	30-130	30
1-Methylnaphthalene	ND	40.0	34.2	85	40.0	31.4	78	9	40-130	30
1,2-Diphenylhydrazine	ND	40.0	35.6	89	40.0	33.9	85	5	30-130	30
3,5-Dimethylphenol	ND	40.0	34.6	86	40.0	32.5	81	6	20-150	30
Aniline	ND	40.0	23.3	58	40.0	22.5	56	4	10-130	30
Benzidine	ND	80.0	38.6J	48	80.0	21.6J	27	56*	20-130	30
Benzoic Acid	ND	80.0	35.2J	44	80.0	25.7J	32	31*	10-130	30
Carbazole	ND	40.0	36.5	91	40.0	34.2	85	6	50-130	30
N-Nitrosodimethylamine	ND	40.0	29.2	73	40.0	27.7	69	5	30-150	30

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SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	60.0	50.5	84	60.0	50.8	85	30-130
2-Fluorobiphenyl	20.0	14.8	74	20.0	14.0	70	45-130
2-Fluorophenol	60.0	37.1	62	60.0	36.4	61	20-130
Nitrobenzene-d5	20.0	14.2	71	20.0	13.7	69	40-130
Phenol-d5	60.0	40.3	67	60.0	39.7	66	20-120
Terphenyl-d14	20.0	18.0	90	20.0	18.0	90	45-135

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:24
Sample ID: SL-187-SA7-SB-27.5-28.5	Date Analyzed: 02/27/12 20:01
Lab Samp ID: B201-03	Dilution Factor: 1
Lab File ID: RBJ201	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 6.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	180	90
1,2-DICHLOROBENZENE	ND	180	90
1,3-DICHLOROBENZENE	ND	180	90
1,4-DICHLOROBENZENE	ND	180	90
2,4,5-TRICHLOROPHENOL	ND	180	90
2,4,6-TRICHLOROPHENOL	ND	180	90
2,4-DICHLOROPHENOL	ND	180	90
2,4-DIMETHYLPHENOL	ND	180	90
2,4-DINITROPHENOL	ND	360	180
2,4-DINITROTOLUENE	ND	180	90
2,6-DINITROTOLUENE	ND	180	90
2-CHLORONAPHTHALENE	ND	180	90
2-CHLOROPHENOL	ND	180	90
2-METHYLNAPHTHALENE	ND	180	90
2-METHYLPHENOL	ND	180	90
2-NITROANILINE	ND	180	90
2-NITROPHENOL	ND	180	90
3,3'-DICHLOROBENZIDINE	ND	180	90
3-NITROANILINE	ND	180	90
4,6-DINITRO-2-METHYLPHENOL	ND	360	180
4-BROMOPHENYL-PHENYLETHER	ND	180	90
4-CHLORO-3-METHYLPHENOL	ND	180	90
4-CHLOROANILINE	ND	180	90
4-CHLOROPHENYL-PHENYLETHER	ND	180	90
4-METHYLPHENOL (1)	ND	180	90
4-NITROANILINE	ND	180	90
4-NITROPHENOL	ND	360	180
ACENAPHTHENE	ND	180	90
ACENAPHTHYLENE	ND	180	90
ANTHRACENE	ND	180	90
BENZO(A)ANTHRACENE	ND	180	90
BENZO(A)PYRENE	ND	180	90
BENZO(B)FLUORANTHENE	ND	180	90
BENZO(K)FLUORANTHENE	ND	180	90
BENZO(G,H,I)PERYLENE	ND	180	90
BIS(2-CHLOROETHOXY)METHANE	ND	180	90
BIS(2-CHLOROETHYL)ETHER	ND	180	90
BIS(2-CHLOROISOPROPYL)ETHER	ND	180	90
BIS(2-ETHYLHEXYL)PHTHALATE	ND	180	90
BUTYLBENZYLPHTHALATE	ND	180	90
CHRYSENE	ND	180	90
DI-N-BUTYLPHTHALATE	ND	180	90
DI-N-OCTYLPHTHALATE	ND	180	90
DIBENZO(A,H)ANTHRACENE	ND	180	90
DIBENZOFURAN	ND	180	90
DIETHYLPHTHALATE	ND	180	90
DIMETHYLPHTHALATE	ND	180	90
FLUORANTHENE	ND	180	90
FLUORENE	ND	180	90
HEXACHLOROBENZENE	ND	180	90
HEXACHLOROBUTADIENE	ND	180	90
HEXACHLOROCYCLOPENTADIENE	ND	180	90
HEXACHLOROETHANE	ND	180	90
INDENO(1,2,3-CD)PYRENE	ND	180	90
ISOPHORONE	ND	180	90
N-NITROSO-DI-N-PROPYLAMINE	ND	180	90
N-NITROSODIPHENYLAMINE (2)	ND	180	90
NAPHTHALENE	ND	180	90
NITROBENZENE	ND	180	90
PENTACHLOROPHENOL	ND	360	180
PHENANTHRENE	ND	180	90
PHENOL	ND	180	90
PYRENE	ND	180	90
BENZYL ALCOHOL	ND	180	90
1-METHYLNAPHTHALENE	ND	180	90
1,2-DIPHENYLHYDRAZINE	ND	180	90
3,5-DIMETHYLPHENOL	ND	180	90
ANILINE	ND	360	180
BENZIDINE	ND	890	450
BENZOIC ACID	ND	710	360
CARBAZOLE	ND	180	90
N-NITROSODIMETHYLAMINE	ND	180	90
TETRALIN	ND	180	180
2-BUTOXYETHANOL	ND	180	180
2-PHENOXYETHANOL	ND	180	180

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	948	1067	88.9	35-130
2-FLUOROBIPHENYL	288	355.7	81.0	45-130
2-FLUOROPHENOL	774	1067	72.5	25-130
NITROBENZENE-D5	254	355.7	71.3	40-130
PHENOL-D5	797	1067	74.7	25-120
TERPHENYL-D14	350	355.7	98.5	45-135

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/27/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:24
Sample ID: MBLK1S	Date Analyzed: 02/27/12 17:09
Lab Samp ID: SVB033SB	Dilution Factor: 1
Lab File ID: RBJ192	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	170	84
1,2-DICHLOROBENZENE	ND	170	84
1,3-DICHLOROBENZENE	ND	170	84
1,4-DICHLOROBENZENE	ND	170	84
2,4,5-TRICHLOROPHENOL	ND	170	84
2,4,6-TRICHLOROPHENOL	ND	170	84
2,4-DICHLOROPHENOL	ND	170	84
2,4-DIMETHYLPHENOL	ND	170	84
2,4-DINITROPHENOL	ND	330	170
2,4-DINITROTOLUENE	ND	170	84
2,6-DINITROTOLUENE	ND	170	84
2-CHLORONAPHTHALENE	ND	170	84
2-CHLOROPHENOL	ND	170	84
2-METHYLNAPHTHALENE	ND	170	84
2-METHYLPHENOL	ND	170	84
2-NITROANILINE	ND	170	84
2-NITROPHENOL	ND	170	84
3,3'-DICHLOROBENZIDINE	ND	170	84
3-NITROANILINE	ND	170	84
4,6-DINITRO-2-METHYLPHENOL	ND	330	170
4-BROMOPHENYL-PHENYLETHER	ND	170	84
4-CHLORO-3-METHYLPHENOL	ND	170	84
4-CHLOROANILINE	ND	170	84
4-CHLOROPHENYL-PHENYLETHER	ND	170	84
4-METHYLPHENOL (1)	ND	170	84
4-NITROANILINE	ND	170	84
4-NITROPHENOL	ND	330	170
ACENAPHTHENE	ND	170	84
ACENAPHTHYLENE	ND	170	84
ANTHRACENE	ND	170	84
BENZO(A)ANTHRACENE	ND	170	84
BENZO(A)PYRENE	ND	170	84
BENZO(B)FLUORANTHENE	ND	170	84
BENZO(K)FLUORANTHENE	ND	170	84
BENZO(G,H,I)PERYLENE	ND	170	84
BIS(2-CHLOROETHOXY)METHANE	ND	170	84
BIS(2-CHLOROETHYL)ETHER	ND	170	84
BIS(2-CHLOROISOPROPYL)ETHER	ND	170	84
BIS(2-ETHYLHEXYL)PHTHALATE	ND	170	84
BUTYLBENZYLPHTHALATE	ND	170	84
CHRYSENE	ND	170	84
DI-N-BUTYLPHTHALATE	ND	170	84
DI-N-OCTYLPHTHALATE	ND	170	84
DIBENZO(A,H)ANTHRACENE	ND	170	84
DIBENZOFURAN	ND	170	84
DIETHYLPHTHALATE	ND	170	84
DIMETHYLPHTHALATE	ND	170	84
FLUORANTHENE	ND	170	84
FLUORENE	ND	170	84
HEXACHLOROBENZENE	ND	170	84
HEXACHLOROBUTADIENE	ND	170	84
HEXACHLOROCYCLOPENTADIENE	ND	170	84
HEXACHLOROETHANE	ND	170	84
INDENO(1,2,3-CD)PYRENE	ND	170	84
ISOPHORONE	ND	170	84
N-NITROSO-DI-N-PROPYLAMINE	ND	170	84
N-NITROSODIPHENYLAMINE (2)	ND	170	84
NAPHTHALENE	ND	170	84
NITROBENZENE	ND	170	84
PENTACHLOROPHENOL	ND	330	170
PHENANTHRENE	ND	170	84
PHENOL	ND	170	84
PYRENE	ND	170	84
BENZYL ALCOHOL	ND	170	84
1-METHYLNAPHTHALENE	ND	170	84
1,2-DIPHENYLHYDRAZINE	ND	170	84
3,5-DIMETHYLPHENOL	ND	170	84
ANILINE	ND	330	170
BENZIDINE	ND	830	420
BENZOIC ACID	ND	670	330
CARBAZOLE	ND	170	84
N-NITROSODIMETHYLAMINE	ND	170	84
TETRALIN	ND	170	170
2-BUTOXYETHANOL	ND	170	170
2-PHENOXYETHANOL	ND	170	170

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT

2,4,6-TRIBROMOPHENOL	824	1000	82.4	35-130
2-FLUOROBIPHENYL	281	333.3	84.2	45-130
2-FLUOROPHENOL	777	1000	77.7	25-130
NITROBENZENE-D5	255	333.3	76.5	40-130
PHENOL-D5	788	1000	78.8	25-120
TERPHENYL-D14	316	333.3	94.8	45-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
Note: Tetralin, 2-butoxyethanol and 2-phenoxyethanol are reported from TIC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVB033SB SVB033SL SVB033SC
LAB FILE ID: RBJ192 RBJ193 RBJ194
DATE EXTRACTED: 02/27/1211:24 02/27/1211:24 02/27/1211:24 DATE COLLECTED: NA
DATE ANALYZED: 02/27/1217:09 02/27/1217:28 02/27/1217:47 DATE RECEIVED: 02/27/12
PREP. BATCH: SVB033S SVB033S SVB033S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	667	489	73	667	481	72	2	30-130	50
1,2-Dichlorobenzene	ND	667	503	75	667	474	71	6	40-130	50
1,3-Dichlorobenzene	ND	667	486	73	667	462	69	5	40-130	50
1,4-Dichlorobenzene	ND	667	495	74	667	468	70	6	30-130	50
2,4,5-Trichlorophenol	ND	667	522	78	667	519	78	0	40-130	50
2,4,6-Trichlorophenol	ND	667	522	78	667	539	81	3	40-130	50
2,4-Dichlorophenol	ND	667	536	80	667	528	79	2	40-130	50
2,4-Dimethylphenol	ND	667	529	79	667	530	79	0	40-130	50
2,4-Dinitrophenol	ND	667	464	70	667	460	69	1	20-130	50
2,4-Dinitrotoluene	ND	667	567	85	667	567	85	0	30-130	50
2,6-Dinitrotoluene	ND	667	540	81	667	552	83	2	50-130	50
2-Chloronaphthalene	ND	667	559	84	667	549	82	2	50-130	50
2-Chlorophenol	ND	667	501	75	667	489	73	2	30-130	50
2-Methylnaphthalene	ND	667	553	83	667	553	83	0	40-130	50
2-Methylphenol	ND	667	523	78	667	507	76	3	40-130	50
2-Nitroaniline	ND	667	527	79	667	524	79	1	40-130	50
2-Nitrophenol	ND	667	536	80	667	543	81	1	40-130	50
3,3'-Dichlorobenzidine	ND	667	525	79	667	516	77	2	50-130	50
3-Nitroaniline	ND	667	494	74	667	489	73	1	50-130	50
4,6-Dinitro-2-Methylphenol	ND	667	555	83	667	581	87	5	40-160	50
4-Bromophenyl-phenylether	ND	667	555	83	667	591	89	6	40-140	50
4-Chloro-3-Methylphenol	ND	667	529	79	667	534	80	1	30-130	50
4-Chloroaniline	ND	667	458	69	667	441	66	4	40-130	50
4-Chlorophenyl-phenylether	ND	667	536	80	667	542	81	1	40-140	50
4-Methylphenol	ND	667	534	80	667	538	81	1	30-130	50
4-Nitroaniline	ND	667	552	83	667	523	78	5	50-130	50
4-Nitrophenol	ND	667	477	72	667	506	76	6	20-140	50
Acenaphthene	ND	667	540	81	667	535	80	1	30-130	50
Acenaphthylene	ND	667	546	82	667	548	82	0	30-130	50
Anthracene	ND	667	543	81	667	561	84	3	30-130	50
Benzo(a)anthracene	ND	667	585	88	667	595	89	2	40-130	50
Benzo(a)pyrene	ND	667	566	85	667	564	85	0	40-130	50
Benzo(b)fluoranthene	ND	667	614	92	667	610	91	1	40-140	50
Benzo(k)fluoranthene	ND	667	599	90	667	608	91	1	40-140	50
Benzo(g,h,i)perylene	ND	667	623	93	667	615	92	1	40-140	50
bis(2-Chloroethoxy)methane	ND	667	523	78	667	511	77	2	40-130	50
bis(2-Chloroethyl)ether	ND	667	498	75	667	477	72	4	40-130	50
bis(2-Chloroisopropyl)ether	ND	667	513	77	667	511	77	0	40-130	50
bis(2-Ethylhexyl)phthalate	ND	667	657	98	667	657	99	0	40-150	50
Butylbenzylphthalate	ND	667	662	99	667	651	98	2	40-150	50
Chrysene	ND	667	618	93	667	607	91	2	40-140	50
Di-n-butylphthalate	ND	667	629	94	667	637	96	1	10-130	50
Di-n-octylphthalate	ND	667	656	98	667	644	97	2	20-140	50
Dibenzo(a,h)anthracene	ND	667	617	93	667	609	91	1	40-130	50
Dibenzofuran	ND	667	536	80	667	545	82	2	40-130	50
Diethylphthalate	ND	667	577	87	667	581	87	1	40-130	50
Dimethylphthalate	ND	667	571	86	667	568	85	1	40-130	50
Fluoranthene	ND	667	595	89	667	624	94	5	40-130	50

Fluorene	ND	667	550	82	667	554	83	1	30-130	50
Hexachlorobenzene	ND	667	589	88	667	607	91	3	30-130	50
Hexachlorobutadiene	ND	667	513	77	667	505	76	2	10-130	50
Hexachlorocyclopentadiene	ND	667	391	59	667	396	59	1	10-130	50
Hexachloroethane	ND	667	477	71	667	456	68	4	30-130	50
Indeno(1,2,3-cd)pyrene	ND	667	614	92	667	603	90	2	30-140	50
Isophorone	ND	667	539	81	667	548	82	2	40-130	50
n-Nitroso-di-n-propylamine	ND	667	510	77	667	518	78	1	30-130	50
n-Nitrosodiphenylamine	ND	667	439	66	667	444	67	1	30-140	50
Naphthalene	ND	667	529	79	667	526	79	0	30-130	50
Nitrobenzene	ND	667	486	73	667	545	82	11	40-130	50
Pentachlorophenol	ND	667	516	77	667	537	81	4	20-130	50
Phenanthrene	ND	667	568	85	667	584	88	3	30-130	50
Phenol	ND	667	522	78	667	508	76	3	30-130	50
Pyrene	ND	667	582	87	667	580	87	0	30-130	50
Benzyl Alcohol	ND	667	539	81	667	547	82	1	40-130	50
1-Methylnaphthalene	ND	667	557	84	667	555	83	0	30-150	50
1,2-Diphenylhydrazine	ND	667	566	85	667	574	86	1	30-130	50
3,5-Dimethylphenol	ND	667	519	78	667	526	79	1	20-150	50
Aniline	ND	667	373	56	667	346	52	8	20-150	50
Benzidine	ND	2670	985	37	2670	798J	30	21	20-130	50
Benzoic Acid	ND	2670	1020	38	2670	882	33	15	10-130	50
Carbazole	ND	667	563	84	667	594	89	5	40-130	50
N-Nitrosodimethylamine	ND	667	522	78	667	488	73	7	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1000	824	82	1000	834	83	35-130
2-Fluorobiphenyl	333	237	71	333	245	74	45-130
2-Fluorophenol	1000	702	70	1000	713	71	25-130
Nitrobenzene-d5	333	234	70	333	241	72	40-130
Phenol-d5	1000	707	71	1000	730	73	25-120
Terphenyl-d14	333	304	91	333	301	90	45-135

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8270C

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03 B201-03M B201-03S
LAB FILE ID: RBJ201 RBJ202 RBJ203
DATE EXTRACTED: 02/27/1211:24 02/27/1211:24 02/27/1211:24 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/27/1220:01 02/27/1220:20 02/27/1220:39 DATE RECEIVED: 02/22/12
PREP. BATCH: SVB033S SVB033S SVB033S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	712	520	73	712	528	74	2	10-130	50
1,2-Dichlorobenzene	ND	712	476	67	712	454	64	5	30-130	50
1,3-Dichlorobenzene	ND	712	446	63	712	433	61	3	30-130	50
1,4-Dichlorobenzene	ND	712	461	65	712	435	61	6	10-130	50
2,4,5-Trichlorophenol	ND	712	642	90	712	716	101	11	30-130	50
2,4,6-Trichlorophenol	ND	712	645	91	712	662	93	3	30-130	50
2,4-Dichlorophenol	ND	712	607	85	712	622	87	2	30-130	50
2,4-Dimethylphenol	ND	712	595	84	712	615	86	3	30-130	50
2,4-Dinitrophenol	ND	712	220J	31	712	181J	25	19	10-130	50
2,4-Dinitrotoluene	ND	712	629	88	712	637	90	1	20-130	50
2,6-Dinitrotoluene	ND	712	643	90	712	668	94	4	30-130	50
2-Chloronaphthalene	ND	712	651	92	712	671	94	3	30-130	50
2-Chlorophenol	ND	712	577	81	712	572	80	1	20-130	50
2-Methylnaphthalene	ND	712	595	84	712	600	84	1	30-130	50
2-Methylphenol	ND	712	570	80	712	587	82	3	30-130	50
2-Nitroaniline	ND	712	657	92	712	687	97	5	30-130	50
2-Nitrophenol	ND	712	576	81	712	575	81	0	30-130	50
3,3'-Dichlorobenzidine	ND	712	504	71	712	461	65	9	30-130	50
3-Nitroaniline	ND	712	554	78	712	584	82	5	30-130	50
4,6-Dinitro-2-Methylphenol	ND	712	346J	49	712	267J	38	26	30-130	50
4-Bromophenyl-phenylether	ND	712	646	91	712	678	95	5	30-130	50
4-Chloro-3-Methylphenol	ND	712	620	87	712	620	87	0	20-130	50
4-Chloroaniline	ND	712	499	70	712	493	69	1	30-130	50
4-Chlorophenyl-phenylether	ND	712	627	88	712	635	89	1	30-130	50
4-Methylphenol	ND	712	593	83	712	606	85	2	20-130	50
4-Nitroaniline	ND	712	660	93	712	585	82	12	40-130	50
4-Nitrophenol	ND	712	589	83	712	588	83	0	10-130	50
Acenaphthene	ND	712	631	89	712	651	92	3	20-130	50
Acenaphthylene	ND	712	636	89	712	658	92	3	20-130	50
Anthracene	ND	712	629	88	712	660	93	5	20-130	50
Benzo(a)anthracene	ND	712	658	93	712	674	95	2	30-130	50
Benzo(a)pyrene	ND	712	646	91	712	657	92	2	30-130	50
Benzo(b)fluoranthene	ND	712	671	94	712	685	96	2	30-130	50
Benzo(k)fluoranthene	ND	712	682	96	712	700	98	3	30-130	50
Benzo(g,h,i)perylene	ND	712	691	97	712	705	99	2	30-130	50
bis(2-Chloroethoxy)methane	ND	712	535	75	712	554	78	3	30-130	50
bis(2-Chloroethyl)ether	ND	712	507	71	712	492	69	3	30-130	50
bis(2-Chloroisopropyl)ether	ND	712	536	75	712	527	74	2	20-130	50
bis(2-Ethylhexyl)phthalate	ND	712	784	110	712	812	114	4	30-130	50
Butylbenzylphthalate	ND	712	811	114	712	840	118	4	30-130	50
Chrysene	ND	712	690	97	712	696	98	1	30-130	50
Di-n-butylphthalate	ND	712	731	103	712	748	105	2	10-130	50
Di-n-octylphthalate	ND	712	806	113	712	817	115	1	20-130	50
Dibenzo(a,h)anthracene	ND	712	683	96	712	692	97	1	30-130	50
Dibenzofuran	ND	712	632	89	712	636	89	1	30-130	50
Diethylphthalate	ND	712	685	96	712	695	98	2	30-130	50
Dimethylphthalate	ND	712	659	93	712	692	97	5	30-130	50
Fluoranthene	ND	712	661	93	712	679	95	3	30-130	50

Fluorene	ND	712	653	92	712	670	94	3	20-130	50
Hexachlorobenzene	ND	712	661	93	712	687	97	4	10-160	50
Hexachlorobutadiene	ND	712	531	75	712	540	76	2	10-130	50
Hexachlorocyclopentadiene	ND	712	290	41	712	189	27	42	10-130	50
Hexachloroethane	ND	712	457	64	712	426	60	7	20-130	50
Indeno(1,2,3-cd)pyrene	ND	712	669	94	712	686	96	2	20-130	50
Isophorone	ND	712	559	79	712	570	80	2	30-130	50
n-Nitroso-di-n-propylamine	ND	712	524	74	712	525	74	0	20-130	50
n-Nitrosodiphenylamine	ND	712	519	73	712	540	76	4	20-140	50
Naphthalene	ND	712	556	78	712	559	79	1	30-130	50
Nitrobenzene	ND	712	565	79	712	578	81	2	30-130	50
Pentachlorophenol	ND	712	459	64	712	501	70	9	10-130	50
Phenanthrene	ND	712	659	93	712	687	97	4	20-130	50
Phenol	ND	712	568	80	712	566	80	0	20-130	50
Pyrene	ND	712	697	98	712	709	100	2	10-160	50
Benzyl Alcohol	ND	712	589	83	712	593	83	1	30-130	50
1-Methylnaphthalene	ND	712	600	84	712	603	85	1	20-130	50
1,2-Diphenylhydrazine	ND	712	652	92	712	694	98	6	20-150	50
3,5-Dimethylphenol	ND	712	524	74	712	513	72	2	20-130	50
Aniline	ND	712	380	53	712	378	53	1	10-150	50
Benzidine	ND	2850	715J	25	2850	506J	18	34	10-150	50
Benzoic Acid	ND	2850	ND	0*	2850	ND	0*	0	10-130	50
Carbazole	ND	712	664	93	712	679	95	2	30-130	50
N-Nitrosodimethylamine	ND	712	504	71	712	498	70	1	20-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	1070	1010	94	1070	995	93	35-130
2-Fluorobiphenyl	356	298	84	356	304	86	45-130
2-Fluorophenol	1070	772	72	1070	768	72	25-130
Nitrobenzene-d5	356	258	72	356	264	74	40-130
Phenol-d5	1070	815	76	1070	800	75	25-120
Terphenyl-d14	356	369	104	356	367	103	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:24
Sample ID: SL-187-SA7-SB-27.5-28.5	Date Analyzed: 02/27/12 20:01
Lab Samp ID: B201-03	Dilution Factor: 1
Lab File ID: RBJ201	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : 6.3
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.8	0.91
ACENAPHTHYLENE	ND	1.8	0.91
ANTHRACENE	ND	1.8	0.91
BENZO(A)ANTHRACENE	6.8	1.8	0.91
BENZO(A)PYRENE	ND	1.8	0.91
BENZO(B)FLUORANTHENE	ND	1.8	0.91
BENZO(K)FLUORANTHENE	ND	1.8	0.91
BENZO(G,H,I)PERYLENE	2.7	1.8	0.91
CHRYSENE	3.6	1.8	0.91
DIBENZO(A,H)ANTHRACENE	1.2J	1.8	0.91
FLUORANTHENE	ND	1.8	0.91
FLUORENE	ND	1.8	0.91
INDENO(1,2,3-CD)PYRENE	ND	1.8	0.91
NAPHTHALENE	ND	1.8	0.91
PHENANTHRENE	ND	1.8	0.91
PYRENE	1.9	1.8	0.91
2-METHYLNAPHTHALENE	ND	1.8	0.91
1-METHYLNAPHTHALENE	ND	1.8	0.91
BIS(2-ETHYLHEXYL)PHTHALATE	17J	18	9.0
BUTYLBENZYLPHTHALATE	ND	18	9.0
DI-N-BUTYLPHTHALATE	16J	18	9.0
DI-N-OCTYLPHTHALATE	ND	18	9.0
DIETHYLPHTHALATE	ND	18	9.0
DIMETHYLPHTHALATE	ND	18	9.0
N-NITROSODIMETHYLAMINE	ND	1.8	0.91

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	269	355.7	75.5	40-130
2-FLUOROBIPHENYL	258	355.7	72.4	45-130
TERPHENYL-D14	328	355.7	92.1	45-135

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS SIM

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/27/12
Batch No. : 12B201	Date Extracted: 02/27/12 11:24
Sample ID: MBLK1S	Date Analyzed: 02/27/12 17:09
Lab Samp ID: SVB033SB	Dilution Factor: 1
Lab File ID: RBJ192	Matrix : SOIL
Ext Btch ID: SVB033S	% Moisture : NA
Calib. Ref.: RAJ290	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ACENAPHTHENE	ND	1.7	0.85
ACENAPHTHYLENE	ND	1.7	0.85
ANTHRACENE	ND	1.7	0.85
BENZO(A)ANTHRACENE	ND	1.7	0.85
BENZO(A)PYRENE	ND	1.7	0.85
BENZO(B)FLUORANTHENE	ND	1.7	0.85
BENZO(K)FLUORANTHENE	ND	1.7	0.85
BENZO(G,H,I)PERYLENE	ND	1.7	0.85
CHRYSENE	ND	1.7	0.85
DIBENZO(A,H)ANTHRACENE	ND	1.7	0.85
FLUORANTHENE	ND	1.7	0.85
FLUORENE	ND	1.7	0.85
INDENO(1,2,3-CD)PYRENE	ND	1.7	0.85
NAPHTHALENE	ND	1.7	0.85
PHENANTHRENE	ND	1.7	0.85
PYRENE	ND	1.7	0.85
2-METHYLNAPHTHALENE	ND	1.7	0.85
1-METHYLNAPHTHALENE	ND	1.7	0.85
BIS(2-ETHYLHEXYL)PHTHALATE	ND	17	8.4
BUTYLBENZYLPHTHALATE	ND	17	8.4
DI-N-BUTYLPHTHALATE	ND	17	8.4
DI-N-OCTYLPHTHALATE	ND	17	8.4
DIETHYLPHTHALATE	ND	17	8.4
DIMETHYLPHTHALATE	ND	17	8.4
N-NITROSODIMETHYLAMINE	ND	1.7	0.85

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
NITROBENZENE-D5	281	333.3	84.5	40-130
2-FLUOROBIPHENYL	266	333.3	79.9	45-130
TERPHENYL-D14	317	333.3	95.0	45-135

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8270C SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVB033SB	SVB033SX	SVB033SY		
LAB FILE ID:	RBJ192	RBJ195	RBJ196		
DATE EXTRACTED:	02/27/1211:24	02/27/1211:24	02/27/1211:24	DATE COLLECTED:	NA
DATE ANALYZED:	02/27/1217:09	02/27/1218:06	02/27/1218:25	DATE RECEIVED:	02/27/12
PREP. BATCH:	SVB033S	SVB033S	SVB033S		
CALIB. REF:	RAJ290	RAJ290	RAJ290		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	333	276	83	333	284	85	3	10-130	50
Acenaphthylene	ND	333	297	89	333	307	92	3	20-130	50
Anthracene	ND	333	263	79	333	273	82	4	20-130	50
Benzo(a)anthracene	ND	333	287	86	333	312	94	8	30-130	50
Benzo(a)pyrene	ND	333	299	90	333	319	96	7	30-130	50
Benzo(b)fluoranthene	ND	333	320	96	333	336	101	5	40-130	50
Benzo(k)fluoranthene	ND	333	325	97	333	352	106	8	30-140	50
Benzo(g,h,i)perylene	ND	333	324	97	333	347	104	7	30-140	50
Chrysene	ND	333	279	84	333	302	91	8	30-140	50
Dibenzo(a,h)anthracene	ND	333	328	98	333	352	106	7	40-140	50
Fluoranthene	ND	333	295	89	333	316	95	7	30-130	50
Fluorene	ND	333	295	89	333	302	91	2	20-130	50
Indeno(1,2,3-cd)pyrene	ND	333	330	99	333	354	106	7	20-160	50
Naphthalene	ND	333	251	75	333	260	78	3	10-130	50
Phenanthrene	ND	333	267	80	333	278	83	4	20-130	50
Pyrene	ND	333	284	85	333	304	91	7	20-150	50
2-Methylnaphthalene	ND	333	274	82	333	284	85	4	30-150	50
1-Methylnaphthalene	ND	333	274	82	333	284	85	4	30-150	50
bis(2-Ethylhexyl)phthalate	ND	333	307	92	333	333	100	8	30-130	50
Butylbenzylphthalate	ND	333	291	87	333	316	95	8	30-150	50
Di-n-butylphthalate	ND	333	299	90	333	316	95	6	10-150	50
Di-n-octylphthalate	ND	333	300	90	333	319	96	6	20-150	50
Diethylphthalate	ND	333	310	93	333	318	95	3	30-150	50
Dimethylphthalate	ND	333	301	90	333	306	92	2	30-150	50
N-Nitrosodimethylamine	ND	333	237	71	333	246	74	4	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Nitrobenzene-d5	333	233	70	333	267	80	40-130
2-Fluorobiphenyl	333	221	66	333	246	74	45-130
Terphenyl-d14	333	269	81	333	309	93	45-135

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8270C SIM

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03 B201-03M B201-03S
LAB FILE ID: RBJ201 RBJ204 RBJ205
DATE EXTRACTED: 02/27/1211:24 02/27/1211:24 02/27/1211:24 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/27/1220:01 02/27/1220:58 02/27/1221:17 DATE RECEIVED: 02/22/12
PREP. BATCH: SVB033S SVB033S SVB033S
CALIB. REF: RAJ290 RAJ290 RAJ290

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Acenaphthene	ND	356	291	82	356	271	76	7	10-130	50
Acenaphthylene	ND	356	316	89	356	297	83	6	20-130	50
Anthracene	ND	356	335	94	356	310	87	8	20-130	50
Benzo(a)anthracene	6.75	356	316	87	356	288	79	9	30-130	50
Benzo(a)pyrene	ND	356	372	105	356	347	97	7	30-130	50
Benzo(b)fluoranthene	ND	356	377	106	356	349	98	8	30-130	50
Benzo(k)fluoranthene	ND	356	376	106	356	351	99	7	30-130	50
Benzo(g,h,i)perylene	2.67	356	388	108	356	361	101	7	30-140	50
Chrysene	3.57	356	307	85	356	280	78	9	20-130	50
Dibenzo(a,h)anthracene	1.25J	356	394	110	356	366	103	7	30-130	50
Fluoranthene	ND	356	355	100	356	324	91	9	30-130	50
Fluorene	ND	356	317	89	356	292	82	8	20-130	50
Indeno(1,2,3-cd)pyrene	ND	356	394	111	356	366	103	8	20-160	50
Naphthalene	ND	356	259	73	356	251	70	3	10-130	50
Phenanthrene	ND	356	336	94	356	310	87	8	20-130	50
Pyrene	1.85	356	337	94	356	307	86	9	10-160	50
2-Methylnaphthalene	ND	356	288	81	356	273	77	5	30-150	50
1-Methylnaphthalene	ND	356	288	81	356	274	77	5	30-150	50
bis(2-Ethylhexyl)phthalate	17.2J	356	381	102	356	348	93	9	20-150	50
Butylbenzylphthalate	ND	356	365	103	356	335	94	9	20-150	50
Di-n-butylphthalate	15.8J	356	388	105	356	361	97	7	20-150	50
Di-n-octylphthalate	ND	356	432	121	356	401	113	8	10-150	50
Diethylphthalate	ND	356	339	95	356	314	88	7	20-150	50
Dimethylphthalate	ND	356	327	92	356	305	86	7	20-150	50
N-Nitrosodimethylamine	ND	356	237	67	356	240	67	1	20-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Nitrobenzene-d5	356	268	75	356	274	77	40-130
2-Fluorobiphenyl	356	248	70	356	244	69	45-130
Terphenyl-d14	356	330	93	356	315	88	45-135

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/25/12 00:09
Sample ID: EB-SA7-SB-022212	Date Analyzed: 02/25/12 00:09
Lab Samp ID: B201-01	Dilution Factor: 1
Lab File ID: EB23045A	Matrix : WATER
Ext Btch ID: VA39B14	% Moisture : NA
Calib. Ref.: EB23037A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	23J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.3	40.00	83.2	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/25/12 00:51
Sample ID: TB-022212	Date Analyzed: 02/25/12 00:51
Lab Samp ID: B201-04	Dilution Factor: 1
Lab File ID: EB23046A	Matrix : WATER
Ext Btch ID: VA39B14	% Moisture : NA
Calib. Ref.: EB23037A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	23J	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	33.7	40.00	84.4	60-130

RL : Reporting Limit

METHOD 5030B/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
Batch No. : 12B201	Date Extracted: 02/24/12 22:03
Sample ID: MBLK1W	Date Analyzed: 02/24/12 22:03
Lab Samp ID: VA39B14B	Dilution Factor: 1
Lab File ID: EB23042A	Matrix : WATER
Ext Btch ID: VA39B14	% Moisture : NA
Calib. Ref.: EB23037A	Instrument ID : GCT039

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
GASOLINE RANGE ORGANICS (C5-C12)	ND	50	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	32.3	40.00	80.7	60-130

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 5030B/8015B GRO

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39B14B	VA39B14L	VA39B14C		
LAB FILE ID:	EB23042A	EB23043A	EB23044A		
DATE EXTRACTED:	02/24/1222:03	02/24/1222:45	02/24/1223:27	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1222:03	02/24/1222:45	02/24/1223:27	DATE RECEIVED:	02/24/12
PREP. BATCH:	VA39B14	VA39B14	VA39B14		
CALIB. REF:	EB23037A	EB23037A	EB23037A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	500	496	99	500	528	106	6	60-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	40.0	38.3	96	40.0	41.2	103	60-130

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/24/12 19:17
Sample ID: SL-187-SA7-SB-28.0	Date Analyzed: 02/24/12 19:17
Lab Samp ID: B201-02	Dilution Factor: 0.94
Lab File ID: EB23038A	Matrix : SOIL
Ext Btch ID: GMB012S	% Moisture : 7.4
Calib. Ref.: EB23037A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.51

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.65	2.030	81.4	60-130

RL : Reporting Limit
Methanol Extraction: 02/23/12 15:03

METHOD 5035/8015B GRO
PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
Batch No. : 12B201	Date Extracted: 02/24/12 11:37
Sample ID: MBLK1S	Date Analyzed: 02/24/12 11:37
Lab Samp ID: GMB012SB	Dilution Factor: 1
Lab File ID: EB23027A	Matrix : SOIL
Ext Btch ID: GMB012S	% Moisture : NA
Calib. Ref.: EB23026A	Instrument ID : GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE RANGE ORGANICS (C5-C12)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
4-BROMOFLUOROBENZENE	1.82	2.000	91.0	60-130

RL : Reporting Limit
Methanol Extraction: 02/23/12 15:03

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	GMB012SB	GMB012SL	GMB012SC		
LAB FILE ID:	EB23027A	EB23028A	EB23029A		
DATE EXTRACTED:	02/24/1211:37	02/24/1212:19	02/24/1213:01	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1211:37	02/24/1212:19	02/24/1213:01	DATE RECEIVED:	02/24/12
PREP. BATCH:	GMB012S	GMB012S	GMB012S		
CALIB. REF:	EB23026A	EB23026A	EB23026A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.0	24.1	96	25.0	23.0	92	4	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.00	2.11	106	2.00	2.02	101	60-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 5035/8015B GRO

MATRIX:	SOIL			% MOISTURE:	7.4
DILUTION FACTOR:	0.94	0.93	0.93		
SAMPLE ID:	SL-187-SA7-SB-28.0				
LAB SAMP ID:	B201-02	B201-02M	B201-02S		
LAB FILE ID:	EB23038A	EB23039A	EB23040A		
DATE EXTRACTED:	02/24/1219:17	02/24/1219:58	02/24/1220:40	DATE COLLECTED:	02/22/12
DATE ANALYZED:	02/24/1219:17	02/24/1219:58	02/24/1220:40	DATE RECEIVED:	02/22/12
PREP. BATCH:	GMB012S	GMB012S	GMB012S		
CALIB. REF:	EB23037A	EB23037A	EB23037A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GASOLINE RANGE ORGANICS (C5-C12)	ND	25.1	19.5	78	25.1	20.7	82	6	50-130	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
4-Bromofluorobenzene	2.01	1.77	88	2.01	1.80	90	60-130

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/23/12 15:23
Sample ID: EB-SA7-SB-022212	Date Analyzed: 02/23/12 15:23
Lab Samp ID: B201-01	Dilution Factor: 1
Lab File ID: BB23014A	Matrix : WATER
Ext Btch ID: MEB002W	% Moisture : NA
Calib. Ref.: BB23003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	1000	500
ISOPROPANOL	ND	1000	500
METHANOL	ND	1000	500

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 14:18
Sample ID: MBLK1W	Date Analyzed: 02/23/12 14:18
Lab Samp ID: MEB002WB	Dilution Factor: 1
Lab File ID: BB23011A	Matrix : WATER
Ext Btch ID: MEB002W	% Moisture : NA
Calib. Ref.: BB23003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	1000	500
ISOPROPANOL	ND	1000	500
METHANOL	ND	1000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	MEB002WB	MEB002WL	MEB002WC		
LAB FILE ID:	BB23011A	BB23012A	BB23013A		
DATE EXTRACTED:	02/23/1214:18	02/23/1214:42	02/23/1215:02	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1214:18	02/23/1214:42	02/23/1215:02	DATE RECEIVED:	02/23/12
PREP. BATCH:	MEB002W	MEB002W	MEB002W		
CALIB. REF:	BB23003A	BB23003A	BB23003A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	11300	113	10000	10600	106	7	50-150	30
Isopropanol	ND	10000	9060	91	10000	8070	81	12	50-150	30
Methanol	ND	10000	9840	98	10000	9030	90	9	50-150	30

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/23/12 10:45
Sample ID: SL-187-SA7-SB-27.5-28.5	Date Analyzed: 02/23/12 13:07
Lab Samp ID: B201-03	Dilution Factor: 1
Lab File ID: BB23007A	Matrix : SOIL
Ext Btch ID: MEB005S	% Moisture : 6.3
Calib. Ref.: BB23003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	530	270
ISOPROPANOL	ND	530	270
METHANOL	ND	530	270

RL : Reporting Limit

METHOD 8015B
ALCOHOLS BY GC

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 10:45
Sample ID: MBLK1S	Date Analyzed: 02/23/12 11:58
Lab Samp ID: MEB005SB	Dilution Factor: 1
Lab File ID: BB23004A	Matrix : SOIL
Ext Btch ID: MEB005S	% Moisture : NA
Calib. Ref.: BB23003A	Instrument ID : GCT072

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ETHANOL	ND	500	250
ISOPROPANOL	ND	500	250
METHANOL	ND	500	250

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	MEB005SB	MEB005SL	MEB005SC		
LAB FILE ID:	BB23004A	BB23005A	BB23006A		
DATE EXTRACTED:	02/23/1210:45	02/23/1210:45	02/23/1210:45	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1211:58	02/23/1212:15	02/23/1212:36	DATE RECEIVED:	02/23/12
PREP. BATCH:	MEB005S	MEB005S	MEB005S		
CALIB. REF:	BB23003A	BB23003A	BB23003A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	10700	107	10000	12300	123	14	50-150	50
Isopropanol	ND	10000	8290	83	10000	8560	86	3	50-150	50
Methanol	ND	10000	9180	92	10000	8670	87	6	50-150	50

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015B

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03 B201-03M B201-03S
LAB FILE ID: BB23007A BB23008A BB23009A
DATE EXTRACTED: 02/23/1210:45 02/23/1210:45 02/23/1210:45 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/23/1213:07 02/23/1213:25 02/23/1213:41 DATE RECEIVED: 02/22/12
PREP. BATCH: MEB005S MEB005S MEB005S
CALIB. REF: BB23003A BB23003A BB23003A

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10700	12100	113	10700	12700	119	5	30-150	50
Isopropanol	ND	10700	8540	80	10700	9390	88	10	50-150	50
Methanol	ND	10700	9400	88	10700	10400	97	10	50-140	50

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/22/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
Batch No.	: 12B201	Date Extracted	: 02/23/12 17:56
Sample ID	: EB-SA7-SB-022212	Date Analyzed	: 02/23/12 17:56
Lab Samp ID	: B201-01	Dilution Factor	: 1
Lab File ID	: BB23021A	Matrix	: WATER
Ext Btch ID	: PEB002W	% Moisture	: NA
Calib. Ref.	: BB23017A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIETHYLENE GLYCOL	ND	10	5.0
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	2.5

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 17:41
Sample ID: MBLK1W	Date Analyzed: 02/23/12 17:41
Lab Samp ID: PEB002WB	Dilution Factor: 1
Lab File ID: BB23020A	Matrix : WATER
Ext Btch ID: PEB002W	% Moisture : NA
Calib. Ref.: BB23017A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIETHYLENE GLYCOL	ND	10	5.0
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	2.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015M

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: PEB002WB PEB002WL PEB002WC
LAB FILE ID: BB23020A BB23018A BB23019A
DATE EXTRACTED: 02/23/1217:41 02/23/1216:44 02/23/1217:00 DATE COLLECTED: NA
DATE ANALYZED: 02/23/1217:41 02/23/1216:44 02/23/1217:00 DATE RECEIVED: 02/23/12
PREP. BATCH: PEB002W PEB002W PEB002W
CALIB. REF: BB23017A BB23017A BB23017A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	49.8	100	50.0	52.5	105	5	50-150	30
Ethylene Glycol	ND	50.0	58.6	117	50.0	64.3	129	9	50-150	30
Propylene Glycol	ND	25.0	19.8	79	25.0	18.2	73	8	50-150	30

METHOD 8015M
GLYCOLS

Client	: CDM	Date Collected	: 02/22/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
Batch No.	: 12B201	Date Extracted	: 02/24/12 08:40
Sample ID	: SL-187-SA7-SB-27.5-28.5	Date Analyzed	: 02/24/12 11:51
Lab Samp ID	: B201-03	Dilution Factor	: 1
Lab File ID	: BB24012A	Matrix	: SOIL
Ext Btch ID	: PEB005S	% Moisture	: 6.3
Calib. Ref.	: BB24004A	Instrument ID	: GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	16	8.0
ETHYLENE GLYCOL	ND	11	5.3
PROPYLENE GLYCOL	ND	11	5.3

METHOD 8015M
GLYCOLS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
Batch No. : 12B201	Date Extracted: 02/24/12 08:40
Sample ID: MBLK1S	Date Analyzed: 02/24/12 10:26
Lab Samp ID: PEB005SB	Dilution Factor: 1
Lab File ID: BB24007A	Matrix : SOIL
Ext Btch ID: PEB005S	% Moisture : NA
Calib. Ref.: BB24004A	Instrument ID : GCT072

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIETHYLENE GLYCOL	ND	15	7.5
ETHYLENE GLYCOL	ND	10	5.0
PROPYLENE GLYCOL	ND	10	5.0

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015M

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PEB005SB	PEB005SL	PEB005SC		
LAB FILE ID:	BB24007A	BB24005A	BB24006A		
DATE EXTRACTED:	02/24/1208:40	02/24/1208:40	02/24/1208:40	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:26	02/24/1209:33	02/24/1209:46	DATE RECEIVED:	02/24/12
PREP. BATCH:	PEB005S	PEB005S	PEB005S		
CALIB. REF:	BB24004A	BB24004A	BB24004A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	50.0	43.3	87	50.0	43.5	87	0	50-150	50
Ethylene Glycol	ND	50.0	52.2	104	50.0	55.1	110	5	50-150	50
Propylene Glycol	ND	25.0	16.3	65	25.0	17.7	71	8	50-150	50

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 8015M

MATRIX: SOIL % MOISTURE: 6.3

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	BB24012A	BB24013A	BB24014A		
DATE EXTRACTED:	02/24/1208:40	02/24/1208:40	02/24/1208:40	DATE COLLECTED:	02/22/12
DATE ANALYZED:	02/24/1211:51	02/24/1212:23	02/24/1213:33	DATE RECEIVED:	02/22/12
PREP. BATCH:	PEB005S	PEB005S	PEB005S		
CALIB. REF:	BB24004A	BB24004A	BB24004A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diethylene Glycol	ND	53.4	54.0	101	53.4	52.8	99	2	50-150	50
Ethylene Glycol	ND	53.4	72.4	136	53.4	74.1	139	2	50-150	50
Propylene Glycol	ND	26.7	26.8	100	26.7	26.0	97	3	50-150	50

METHOD 3520C/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/23/12 13:30
Sample ID: EB-SA7-SB-022212	Date Analyzed: 02/24/12 19:08
Lab Samp ID: B201-01	Dilution Factor: 1.11
Lab File ID: LB24027A	Matrix : WATER
Ext Btch ID: DSB027W	% Moisture : NA
Calib. Ref.: LB24022A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
EFH(C8-C11)	ND	0.56	0.11
EFH(C12-C14)	ND	0.56	0.11
EFH(C15-C20)	ND	0.56	0.11
EFH(C21-C30)	ND	0.56	0.11
EFH(C30-C40)	ND	0.56	0.11
TOTAL EFH(C8-C40)	ND	0.56	0.11

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	0.909	1.110	81.9	40-130
HEXACOSANE	0.262	0.2775	94.3	40-150

RL : Reporting Limit

METHOD 3520C/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 13:30
Sample ID: MBLK1W	Date Analyzed: 02/24/12 18:51
Lab Samp ID: DSB027WB	Dilution Factor: 1
Lab File ID: LB24026A	Matrix : WATER
Ext Btch ID: DSB027W	% Moisture : NA
Calib. Ref.: LB24022A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
EFH(C8-C11)	ND	0.50	0.10
EFH(C12-C14)	ND	0.50	0.10
EFH(C15-C20)	ND	0.50	0.10
EFH(C21-C30)	ND	0.50	0.10
EFH(C30-C40)	ND	0.50	0.10
TOTAL EFH(C8-C40)	ND	0.50	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	0.807	1.000	80.7	40-130
HEXACOSANE	0.227	0.2500	90.9	40-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3520C/8015B EFH

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSB027WB	DSB027WL	DSB027WC		
LAB FILE ID:	LB24026A	LB24024A	LB24025A		
DATE EXTRACTED:	02/23/1213:30	02/23/1213:30	02/23/1213:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1218:51	02/24/1218:17	02/24/1218:34	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB027W	DSB027W	DSB027W		
CALIB. REF:	LB24022A	LB24022A	LB24022A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	5.00	4.56	91	5.00	4.35	87	5	20-150	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1.00	0.835	84	1.00	0.802	80	40-130
Hexacosane	0.250	0.225	90	0.250	0.222	89	40-150

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/23/12 12:31
Sample ID: SL-187-SA7-SB-27.5-28.5	Date Analyzed: 02/23/12 20:41
Lab Samp ID: B201-03T	Dilution Factor: 5
Lab File ID: LB23023A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : 6.3
Calib. Ref.: LB23014A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	3.2J	5.3	2.7
EFH(C12-C14)	ND	5.3	2.7
EFH(C15-C20)	ND	5.3	2.7
EFH(C21-C30)	83	5.3	2.7
EFH(C30-C40)	110	5.3	2.7
TOTAL EFH(C8-C40)	200	5.3	2.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.51	10.67	70.3	50-150
HEXACOSANE	2.41	2.668	90.4	50-150

RL : Reporting Limit

METHOD 3550B/8015B EFH
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 12:31
Sample ID: MBLK1S	Date Analyzed: 02/23/12 17:02
Lab Samp ID: DSB026SB	Dilution Factor: 1
Lab File ID: LB23010A	Matrix : SOIL
Ext Btch ID: DSB026S	% Moisture : NA
Calib. Ref.: LB23002A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
EFH(C8-C11)	ND	1.0	0.50
EFH(C12-C14)	ND	1.0	0.50
EFH(C15-C20)	ND	1.0	0.50
EFH(C21-C30)	ND	1.0	0.50
EFH(C30-C40)	ND	1.0	0.50
TOTAL EFH(C8-C40)	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
BROMOBENZENE	7.59	10.00	75.9	50-150
HEXACOSANE	2.31	2.500	92.4	50-150

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSB026SB	DSB026SL	DSB026SC		
LAB FILE ID:	LB23010A	LB23008A	LB23009A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1217:02	02/23/1216:28	02/23/1216:45	DATE RECEIVED:	02/23/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23002A	LB23002A	LB23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	ND	50.0	45.0	90	50.0	53.7	107	18	50-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	10.0	8.02	80	10.0	8.50	85	50-150
Hexacosane	2.50	2.29	91	2.50	2.35	94	50-150

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8015B EFH

MATRIX:	SOIL			% MOISTURE:	6.3
DILUTION FACTOR:	5	5	5		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03T	B201-03M	B201-03S		
LAB FILE ID:	LB23023A	LB23024A	LB23025A		
DATE EXTRACTED:	02/23/1212:31	02/23/1212:31	02/23/1212:31	DATE COLLECTED:	02/22/12
DATE ANALYZED:	02/23/1220:41	02/23/1220:58	02/23/1221:15	DATE RECEIVED:	02/22/12
PREP. BATCH:	DSB026S	DSB026S	DSB026S		
CALIB. REF:	LB23014A	LB23014A	LB23014A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Total EFH(C8-C40)	196	53.4	268	135	53.4	399	380*	39	50-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromobenzene	10.7	7.00	66	10.7	7.73	72	50-150
Hexacosane	2.67	2.36	89	2.67	2.48	93	50-150

* : Out of QC limit due to matrix interference.

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: 02/22/12
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/22/12
Batch No. : 12B201	Date Extracted: 02/23/12 15:29
Sample ID: SL-187-SA7-SB-27.5-28.5	Date Analyzed: 02/25/12 11:10
Lab Samp ID: B201-03	Dilution Factor: 1
Lab File ID: KB24036A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : 6.3
Calib. Ref.: KB24027A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.8	0.91|0.91
AROCLOR 1221	(ND)|ND	1.8	0.91|0.91
AROCLOR 1232	(ND)|ND	1.8	0.91|0.91
AROCLOR 1242	(ND)|ND	1.8	0.91|0.91
AROCLOR 1248	(ND)|ND	1.8	0.91|0.91
AROCLOR 1254	(ND)|ND	1.8	0.91|0.91
AROCLOR 1260	(ND)|ND	1.8	0.91|0.91
AROCLOR 1262	(ND)|ND	1.8	0.91|0.91
AROCLOR 1268	(ND)|ND	1.8	0.91|0.91
AROCLOR 5432	(ND)|ND	3.5	1.8|1.8
AROCLOR 5442	(ND)|ND	3.5	1.8|1.8
AROCLOR 5460	(ND)|ND	3.5	1.8|1.8

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.178)|3.099	5.692	(91.0)|54.4	45-120
TETRACHLORO-M-XYLENE	(6.599)|3.733	5.692	(116)|65.6	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/23/12
Batch No. : 12B201	Date Extracted: 02/23/12 15:29
Sample ID: MBLK1S	Date Analyzed: 02/24/12 17:43
Lab Samp ID: 60B043SQ	Dilution Factor: 1
Lab File ID: KB24017A	Matrix : SOIL
Ext Btch ID: CPB043S	% Moisture : NA
Calib. Ref.: KB24012A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
AROCLOR 1016	(ND)|ND	1.7	0.85|0.85
AROCLOR 1221	(ND)|ND	1.7	0.85|0.85
AROCLOR 1232	(ND)|ND	1.7	0.85|0.85
AROCLOR 1242	(ND)|ND	1.7	0.85|0.85
AROCLOR 1248	(ND)|ND	1.7	0.85|0.85
AROCLOR 1254	(ND)|ND	1.7	0.85|0.85
AROCLOR 1260	(ND)|ND	1.7	0.85|0.85
AROCLOR 1262	(ND)|ND	1.7	0.85|0.85
AROCLOR 1268	(ND)|ND	1.7	0.85|0.85
AROCLOR 5432	(ND)|ND	3.3	1.7|1.7
AROCLOR 5442	(ND)|ND	3.3	1.7|1.7
AROCLOR 5460	(ND)|ND	3.3	1.7|1.7

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(5.918)|4.323	5.333	(111)|81.1	45-120
TETRACHLORO-M-XYLENE	(5.940)|4.476	5.333	(111)|83.9	10-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: 60B043SQ 60B043SX 60B043SY
LAB FILE ID: KB24017A KB24018A KB24019A
DATE EXTRACTED: 02/23/1215:29 02/23/1215:29 02/23/1215:29 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1217:43 02/24/1218:39 02/24/1219:34 DATE RECEIVED: 02/23/12
PREP. BATCH: CPB043S CPB043S CPB043S
CALIB. REF: KB24012A KB24012A KB24012A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	66.7	(66.9)|57.5	(100)|86	66.7	(62.7)|52.4	(94)|79	(6)|9	50-130	50
Aroclor 1260	(ND)|ND	66.7	(73.9)|55.8	(111)|84	66.7	(73.5)|55.0	(110)|82	(1)|1	60-150	50
Aroclor 5460	(ND)|ND	66.7	(63.3)|53.5	(95)|80	66.7	(62.3)|52.8	(93)|79	(2)|1	50-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.333	(5.880)|4.307	(110)|80.8	5.333	(5.911)|4.336	(111)|81.3	45-120
Tetrachloro-m-xylene	5.333	(5.964)|4.933	(112)|92.5	5.333	(5.889)|4.833	(110)|90.6	10-160

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03 B201-03M B201-03S
LAB FILE ID: KB24036A KB24037A KB24038A
DATE EXTRACTED: 02/23/1215:29 02/23/1215:29 02/23/1215:29 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/25/1211:10 02/25/1212:06 02/25/1213:01 DATE RECEIVED: 02/22/12
PREP. BATCH: CPB043S CPB043S CPB043S
CALIB. REF: KB24027A KB24027A KB24027A

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Aroclor 1016	(ND)|ND	71.2	(61.8)|46.9	(87)|66	71.2	(62.7)|48.0	(88)|67	(1)|2	20-160	50
Aroclor 1260	(ND)|ND	71.2	(64.0)|38.8	(90)|55	71.2	(64.4)|38.7	(91)|54	(1)|0	20-160	50
Aroclor 5460	(ND)|ND	71.2	(50.5)|36.1	(71)|51	71.2	(50.1)|35.5	(70)|50	(1)|2	20-160	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Decachlorobiphenyl	5.692	(4.914)|2.995	(86.3)|52.6	5.692	(5.019)|3.054	(88.2)|53.7	45-120
Tetrachloro-m-xylene	5.692	(5.861)|3.623	(103)|63.7	5.692	(6.194)|3.918	(109)|68.8	10-160

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/22/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
SDG NO.	: 12B201	Date Extracted	: 02/24/12 11:31
Sample ID	: EB-SA7-SB-022212	Date Analyzed	: 02/29/12 13:59
Lab Samp ID	: B201-01W	Dilution Factor	: 1
Lab File ID	: 98B17039	Matrix	: WATER
Ext Btch ID	: IMB022W	% Moisture	: NA
Calib. Ref.	: 98B17037	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Aluminum	ND	0.100	0.0200
Antimony	ND	0.00100	0.000500
Arsenic	ND	0.00100	0.000200
Barium	ND	0.00100	0.000500
Beryllium	ND	0.00100	0.000100
Boron	ND	0.0100	0.00500
Cadmium	ND	0.00100	0.000200
Calcium	ND	0.100	0.0250
Chromium	ND	0.00100	0.000200
Cobalt	ND	0.00100	0.000200
Copper	ND	0.00100	0.000500
Iron	ND	0.100	0.0100
Lead	ND	0.00100	0.000100
Magnesium	ND	0.100	0.0100
Manganese	ND	0.00100	0.000200
Molybdenum	ND	0.00200	0.000500
Nickel	ND	0.00100	0.000200
Potassium	ND	0.100	0.0200
Selenium	ND	0.00100	0.000300
Silver	ND	0.00100	0.000200
Sodium	ND	0.100	0.0500
Strontium	ND	0.00200	0.00100
Thallium	ND	0.00100	0.000200
Tin	ND	0.00100	0.000200
Titanium	ND	0.00200	0.000500
Vanadium	ND	0.00100	0.000500
Zinc	ND	0.0200	0.0100
Lithium	ND	0.00200	0.000500
Phosphorus	ND	0.0500	0.0250
Zirconium	ND	0.00500	0.00200

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B201	Date Extracted: 02/24/12 11:31
Sample ID: MBLK1W	Date Analyzed: 02/29/12 14:31
Lab Samp ID: IMB022WB	Dilution Factor: 1
Lab File ID: 98B17046	Matrix : WATER
Ext Btch ID: IMB022W	% Moisture : NA
Calib. Ref.: 98B17044	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Aluminum	ND	0.100	0.0200
Antimony	ND	0.00100	0.000500
Arsenic	ND	0.00100	0.000200
Barium	ND	0.00100	0.000500
Beryllium	ND	0.00100	0.000100
Boron	ND	0.0100	0.00500
Cadmium	ND	0.00100	0.000200
Calcium	ND	0.100	0.0250
Chromium	ND	0.00100	0.000200
Cobalt	ND	0.00100	0.000200
Copper	ND	0.00100	0.000500
Iron	ND	0.100	0.0100
Lead	ND	0.00100	0.000100
Magnesium	ND	0.100	0.0100
Manganese	ND	0.00100	0.000200
Molybdenum	ND	0.00200	0.000500
Nickel	ND	0.00100	0.000200
Potassium	ND	0.100	0.0200
Selenium	ND	0.00100	0.000300
Silver	ND	0.00100	0.000200
Sodium	ND	0.100	0.0500
Strontium	ND	0.00200	0.00100
Thallium	ND	0.00100	0.000200
Tin	ND	0.00100	0.000200
Titanium	ND	0.00200	0.000500
Vanadium	ND	0.00100	0.000500
Zinc	ND	0.0200	0.0100
Lithium	ND	0.00200	0.000500
Phosphorus	ND	0.0500	0.0250
Zirconium	ND	0.00500	0.00200

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 6020

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IMB022WB	IMB022WL	IMB022WC		
LAB FILE ID:	98B17046	98B17047	98B17048		
DATIME EXTRCTD:	02/24/1211:31	02/24/1211:31	02/24/1211:31	DATE COLLECTED:	NA
DATIME ANALYZD:	02/29/1214:31	02/29/1214:36	02/29/1214:40	DATE RECEIVED:	02/24/12
PREP. BATCH:	IMB022W	IMB022W	IMB022W		
CALIB. REF:	98B17044	98B17044	98B17044		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2.50	2.58	103	2.50	2.64	106	2	80-120	20
Antimony	ND	0.0250	0.0249	99	0.0250	0.0251	100	1	80-120	20
Arsenic	ND	0.0250	0.0249	100	0.0250	0.0249	100	0	80-120	20
Barium	ND	0.0250	0.0247	99	0.0250	0.0250	100	1	80-120	20
Beryllium	ND	0.0250	0.0243	97	0.0250	0.0248	99	2	80-120	20
Boron	ND	0.0250	0.0253	101	0.0250	0.0257	103	1	80-120	20
Cadmium	ND	0.0250	0.0245	98	0.0250	0.0248	99	1	80-120	20
Calcium	ND	2.50	2.60	104	2.50	2.61	104	0	80-120	20
Chromium	ND	0.0250	0.0236	94	0.0250	0.0237	95	1	80-120	20
Cobalt	ND	0.0250	0.0249	100	0.0250	0.0246	98	1	80-120	20
Copper	ND	0.0250	0.0234	94	0.0250	0.0234	94	0	80-120	20
Iron	ND	2.50	2.67	107	2.50	2.69	108	1	80-120	20
Lead	ND	0.0250	0.0244	98	0.0250	0.0245	98	0	80-120	20
Magnesium	ND	2.50	2.58	103	2.50	2.62	105	1	80-120	20
Manganese	ND	0.0250	0.0253	101	0.0250	0.0251	101	1	80-120	20
Molybdenum	ND	0.0250	0.0246	98	0.0250	0.0250	100	2	80-120	20
Nickel	ND	0.0250	0.0233	93	0.0250	0.0233	93	0	80-120	20
Potassium	ND	2.50	2.58	103	2.50	2.61	104	1	80-120	20
Selenium	ND	0.0250	0.0253	101	0.0250	0.0255	102	1	80-120	20
Silver	ND	0.0250	0.0247	99	0.0250	0.0247	99	0	80-120	20
Sodium	ND	2.50	2.48	99	2.50	2.47	99	0	80-120	20
Strontium	ND	0.0250	0.0255	102	0.0250	0.0254	102	0	80-120	20
Thallium	ND	0.0250	0.0247	99	0.0250	0.0247	99	0	80-120	20
Tin	ND	0.0250	0.0252	101	0.0250	0.0253	101	1	80-120	20
Titanium	ND	0.0250	0.0258	103	0.0250	0.0255	102	1	80-120	20
Vanadium	ND	0.0250	0.0238	95	0.0250	0.0238	95	0	80-120	20
Zinc	ND	0.0500	0.0491	98	0.0500	0.0495	99	1	80-120	20
Lithium	ND	0.0250	0.0242	97	0.0250	0.0243	97	1	80-120	20
Phosphorus	ND	0.250	0.264	106	0.250	0.270	108	2	80-120	20
Zirconium	ND	0.0250	0.0261	104	0.0250	0.0262	105	0	80-120	20

METHOD 6020
METALS BY ICP-MS

Client	: CDM	Date Collected	: 02/22/12
Project	: SSFL AREA IV COLLOCATED SAMPLING	Date Received	: 02/22/12
SDG NO.	: 12B201	Date Extracted	: 02/24/12 15:03
Sample ID	: SL-187-SA7-SB-27.5-28.5	Date Analyzed	: 02/29/12 13:22
Lab Samp ID	: B201-03W	Dilution Factor	: 0.976
Lab File ID	: 98B17031	Matrix	: SOIL
Ext Btch ID	: IMB023S	% Moisture	: 6.3
Calib. Ref.	: 98B17026	Instrument ID	: T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	8530	25.0	12.5
Antimony	0.195J	0.208	0.104
Arsenic	3.17	0.417	0.208
Barium	76.7	0.417	0.208
Beryllium	0.358	0.104	0.0521
Boron	30.0	5.21	2.60
Cadmium	0.165	0.104	0.0521
Calcium	9560	20.8	10.4
Chromium	21.4	0.417	0.208
Cobalt	4.34	0.104	0.0521
Copper	7.00	0.417	0.208
Iron	20000	20.8	10.4
Lead	52.5	0.208	0.104
Magnesium	3300	10.4	5.21
Manganese	302	0.521	0.260
Molybdenum	2.55	0.104	0.0521
Nickel	8.49	0.417	0.208
Potassium	2680	62.5	31.2
Selenium	ND	0.417	0.208
Silver	ND	0.104	0.0521
Sodium	374	104	52.1
Strontium	34.7	0.521	0.260
Thallium	0.230	0.104	0.0521
Tin	ND	10.4	5.21
Titanium	831	1.04	0.521
Vanadium	28.7	0.104	0.0521
Zinc	56.0	3.12	1.56
Lithium	18.3	2.08	1.04
Phosphorus	401	12.5	6.25
Zirconium	ND	5.21	2.60

METHOD 6020
METALS BY ICP-MS

Client : CDM	Date Collected: NA
Project : SSFL AREA IV COLLOCATED SAMPLING	Date Received: 02/24/12
SDG NO. : 12B201	Date Extracted: 02/24/12 15:03
Sample ID: MBLK1S	Date Analyzed: 02/24/12 19:55
Lab Samp ID: IMB023SB	Dilution Factor: 1
Lab File ID: 98B14065	Matrix : SOIL
Ext Btch ID: IMB023S	% Moisture : NA
Calib. Ref.: 98B14063	Instrument ID : T-I98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Aluminum	ND	24.0	12.0
Antimony	ND	0.200	0.100
Arsenic	ND	0.400	0.200
Barium	ND	0.400	0.200
Beryllium	ND	0.100	0.0500
Boron	ND	5.00	2.50
Cadmium	ND	0.100	0.0500
Calcium	ND	20.0	10.0
Chromium	ND	0.400	0.200
Cobalt	ND	0.100	0.0500
Copper	ND	0.400	0.200
Iron	ND	20.0	10.0
Lead	ND	0.200	0.100
Magnesium	ND	10.0	5.00
Manganese	ND	0.500	0.250
Molybdenum	ND	0.100	0.0500
Nickel	ND	0.400	0.200
Potassium	ND	60.0	30.0
Selenium	ND	0.400	0.200
Silver	ND	0.100	0.0500
Sodium	ND	100	50.0
Strontium	ND	0.500	0.250
Thallium	ND	0.100	0.0500
Tin	ND	10.0	5.00
Titanium	ND	1.00	0.500
Vanadium	ND	0.100	0.0500
Zinc	ND	3.00	1.50
Lithium	ND	2.00	1.00
Phosphorus	ND	12.0	6.00
Zirconium	ND	5.00	2.50

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMB023SB	IMB023SL	IMB023SC		
LAB FILE ID:	98B14065	98B14066	98B14067		
DATIME EXTRCTD:	02/24/1215:03	02/24/1215:03	02/24/1215:03	DATE COLLECTED:	NA
DATIME ANALYZD:	02/24/1219:55	02/24/1220:02	02/24/1220:09	DATE RECEIVED:	02/24/12
PREP. BATCH:	IMB023S	IMB023S	IMB023S		
CALIB. REF:	98B14063	98B14063	98B14063		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	2500	2550	102	2500	2630	105	3	80-120	20
Antimony	ND	25.0	24.9	100	25.0	24.9	99	0	80-120	20
Arsenic	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Barium	ND	25.0	24.6	98	25.0	24.6	98	0	80-120	20
Beryllium	ND	25.0	25.0	100	25.0	24.9	99	0	80-120	20
Boron	ND	25.0	25.3	101	25.0	25.1	100	1	80-120	20
Cadmium	ND	25.0	24.6	99	25.0	24.6	98	0	80-120	20
Calcium	ND	2500	2540	102	2500	2550	102	0	80-120	20
Chromium	ND	25.0	24.5	98	25.0	25.0	100	2	80-120	20
Cobalt	ND	25.0	24.6	98	25.0	24.9	100	1	80-120	20
Copper	ND	25.0	24.2	97	25.0	24.7	99	2	80-120	20
Iron	ND	2500	2590	104	2500	2630	105	1	80-120	20
Lead	ND	25.0	24.6	98	25.0	24.8	99	1	80-120	20
Magnesium	ND	2500	2530	101	2500	2580	103	2	80-120	20
Manganese	ND	25.0	24.8	99	25.0	25.1	100	1	80-120	20
Molybdenum	ND	25.0	24.9	100	25.0	24.8	99	0	80-120	20
Nickel	ND	25.0	24.1	96	25.0	25.2	101	5	80-120	20
Potassium	ND	2500	2610	104	2500	2640	106	1	80-120	20
Selenium	ND	25.0	25.0	100	25.0	25.3	101	1	80-120	20
Silver	ND	25.0	24.5	98	25.0	24.5	98	0	80-120	20
Sodium	ND	2500	2470	99	2500	2460	98	1	80-120	20
Strontium	ND	25.0	25.6	102	25.0	25.4	102	1	80-120	20
Thallium	ND	25.0	24.9	100	25.0	25.2	101	1	80-120	20
Tin	ND	25.0	27.0	108	25.0	27.0	108	0	80-120	20
Titanium	ND	25.0	24.8	99	25.0	25.2	101	2	80-120	20
Vanadium	ND	25.0	24.6	98	25.0	25.0	100	2	80-120	20
Zinc	ND	50.0	47.4	95	50.0	47.8	96	1	80-120	20
Lithium	ND	25.0	25.3	101	25.0	25.3	101	0	80-120	20
Phosphorus	ND	250	244	97	250	249	100	2	80-120	20
Zirconium	ND	25.0	26.7	107	25.0	26.5	106	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3

DILTN FACTR:	0.976	0.909	0.930		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
CONTROL NO.:	B201-03W	B201-03M	B201-03S		
LAB FILE ID:	98B17031	98B14068	98B14069		
DATIME EXTRCTD:	02/24/1215:03	02/24/1215:03	02/24/1215:03	DATE COLLECTED:	02/22/12
DATIME ANALYZD:	02/29/1213:22	02/24/1220:17	02/24/1220:23	DATE RECEIVED:	02/22/12
PREP. BATCH:	IMB023S	IMB023S	IMB023S		
CALIB. REF:	98B17026	98B14063	98B14063		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	8530	2430	9790	52*	2480	9760	50*	0	75-125	20
Antimony	0.195J	24.3	18.1	74*	24.8	19.1	76	5	75-125	20
Arsenic	3.17	24.3	25.8	93	24.8	26.3	93	2	75-125	20
Barium	76.7	24.3	91.1	59*	24.8	93.7	69*	3	75-125	20
Beryllium	0.358	24.3	24.7	100	24.8	25.9	103	5	75-125	20
Boron	30.0	24.3	55.9	107	24.8	83.5	215*	40*	75-125	20
Cadmium	0.165	24.3	23.6	97	24.8	24.5	98	4	75-125	20
Calcium	9560	2430	11000	58*	2480	11400	75*	4	75-125	20
Chromium	21.4	24.3	44.8	97	24.8	43.4	89	3	75-125	20
Cobalt	4.34	24.3	26.5	91	24.8	26.9	91	2	75-125	20
Copper	7.00	24.3	28.8	90	24.8	29.5	91	2	75-125	20
Iron	20000	2430	18300	-69*	2480	18700	-53*	2	75-125	20
Lead	52.5	24.3	56.8	18*	24.8	225	697*	119*	75-125	20
Magnesium	3300	2430	5200	79	2480	5310	81	2	75-125	20
Manganese	302	24.3	250	-212*	24.8	267	-140*	6	75-125	20
Molybdenum	2.55	24.3	26.6	99	24.8	27.2	99	2	75-125	20
Nickel	8.49	24.3	29.3	86	24.8	29.9	86	2	75-125	20
Potassium	2680	2430	4810	88	2480	4780	84	1	75-125	20
Selenium	ND	24.3	24.0	99	24.8	24.5	99	2	75-125	20
Silver	ND	24.3	23.5	97	24.8	24.2	98	3	75-125	20
Sodium	374	2430	2610	92	2480	2670	93	2	75-125	20
Strontium	34.7	24.3	58.0	96	24.8	58.7	97	1	75-125	20
Thallium	0.230	24.3	24.1	99	24.8	25.1	100	4	75-125	20
Tin	ND	24.3	26.9	111	24.8	27.6	111	2	75-125	20
Titanium	831	24.3	726	-431*	24.8	732	-398*	1	75-125	20
Vanadium	28.7	24.3	45.3	68*	24.8	47.2	75*	4	75-125	20
Zinc	56.0	48.5	98.4	87	49.6	98.5	86	0	75-125	20
Lithium	18.3	24.3	39.4	87	24.8	40.5	90	3	75-125	20
Phosphorus	401	243	607	85	248	638	96	5	75-125	20
Zirconium	ND	24.3	24.5	101	24.8	25.6	103	4	75-125	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.976 0.976
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03W B201-03A
LAB FILE ID: 98B17031 98B17030
DATIME EXTRCTD: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/29/1213:22 02/29/1213:18 DATE RECEIVED: 02/22/12
PREP. BATCH: IMB023S IMB023S
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Aluminum	8530	2600	11000	96	75-125
Antimony	0.195J	26.0	25.2	96	75-125
Arsenic	3.17	26.0	26.9	91	75-125
Barium	76.7	26.0	101	93	75-125
Beryllium	0.358	26.0	24.8	94	75-125
Boron	30.0	26.0	53.7	91	75-125
Cadmium	0.165	26.0	24.9	95	75-125
Calcium	9560	2600	11900	90	75-125
Chromium	21.4	26.0	44.1	87	75-125
Cobalt	4.34	26.0	27.6	89	75-125
Copper	7.00	26.0	28.7	83	75-125
Iron	20000	2600	22200	85	75-125
Lead	52.5	26.0	75.7	89	75-125
Magnesium	3300	2600	5690	92	75-125
Manganese	302	26.0	324	84	75-125
Molybdenum	2.55	26.0	27.6	96	75-125
Nickel	8.49	26.0	30.5	85	75-125
Potassium	2680	2600	5200	97	75-125
Selenium	ND	26.0	24.6	94	75-125
Silver	ND	26.0	24.0	92	75-125
Sodium	374	2600	2760	92	75-125
Strontium	34.7	26.0	59.2	94	75-125
Thallium	0.230	26.0	24.9	95	75-125
Tin	ND	26.0	28.3	109	75-125
Titanium	831	26.0	857	100	75-125
Vanadium	28.7	26.0	52.0	89	75-125
Zinc	56.0	52.1	103	89	75-125
Lithium	18.3	26.0	43.0	95	75-125
Phosphorus	401	260	640	92	75-125
Zirconium	ND	26.0	28.3	109	75-125

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 6020

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 0.976 4.88
SAMPLE ID: SL-187-SA7-SB- SL-187-SA7-SB-
EMAX SAMP ID: B201-03W B201-03J
LAB FILE ID: 98B17031 98B17035
DATE EXTRACTED: 02/24/1215:03 02/24/1215:03 DATE COLLECTED: 02/22/12
DATE ANALYZED: 02/29/1213:22 02/29/1213:40 DATE RECEIVED: 02/22/12
PREP. BATCH: IMB023S IMB023S
CALIB. REF: 98B17026 98B17026

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Aluminum	8530	8920	5	10
Antimony	0.195J	ND	NA	10
Arsenic	3.17	3.31	4	10
Barium	76.7	72.1	6	10
Beryllium	0.358	0.364J	NA	10
Boron	30.0	29.3	2	10
Cadmium	0.165	ND	NA	10
Calcium	9560	9930	4	10
Chromium	21.4	21.9	2	10
Cobalt	4.34	4.54	5	10
Copper	7.00	7.43	6	10
Iron	20000	21100	5	10
Lead	52.5	52.6	0	10
Magnesium	3300	3450	5	10
Manganese	302	322	7	10
Molybdenum	2.55	2.44	4	10
Nickel	8.49	8.78	3	10
Potassium	2680	2680	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Sodium	374	323J	NA	10
Strontium	34.7	34.1	2	10
Thallium	0.230	ND	NA	10
Tin	ND	ND	0	10
Titanium	831	842	1	10
Vanadium	28.7	29.2	2	10
Zinc	56.0	58.0	3	10
Lithium	18.3	16.6	9	10
Phosphorus	401	385	4	10
Zirconium	ND	ND	0	10

METHOD 7470A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGB023WB	ND	1	NA	0.000500	0.000100	02/27/1214:56	02/27/1211:15	M47B019010	M47B019008	HGB023W	NA	02/27/12
LCS1W	HGB023WL	0.00518	1	NA	0.000500	0.000100	02/27/1214:58	02/27/1211:15	M47B019011	M47B019008	HGB023W	NA	02/27/12
LCD1W	HGB023WC	0.00518	1	NA	0.000500	0.000100	02/27/1215:00	02/27/1211:15	M47B019012	M47B019008	HGB023W	NA	02/27/12
EB-SA7-SB-022212	B201-01	ND	1	NA	0.000500	0.000100	02/27/1215:31	02/27/1211:15	M47B019027	M47B019020	HGB023W	02/22/12	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGB023WB	HGB023WL	HGB023WC		
LAB FILE ID:	M47B019010	M47B019011	M47B019012		
DATIME EXTRCTD:	02/27/1211:15	02/27/1211:15	02/27/1211:15	DATE COLLECTED:	NA
DATIME ANALYZD:	02/27/1214:56	02/27/1214:58	02/27/1215:00	DATE RECEIVED:	02/27/12
PREP. BATCH:	HGB023W	HGB023W	HGB023W		
CALIB. REF:	M47B019008	M47B019008	M47B019008		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.005	.00518	104	.005	.00518	104	0	80-120	20

METHOD 7471A
MERCURY BY COLD VAPOR

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGB024SB	ND	1	NA	0.100	0.0500	02/28/1215:46	02/28/1212:17	M47B020010	M47B020008	HGB024S	NA	02/28/12
LCS1S	HGB024SL	0.860	1	NA	0.100	0.0500	02/28/1215:48	02/28/1212:17	M47B020011	M47B020008	HGB024S	NA	02/28/12
LCD1S	HGB024SC	0.863	1	NA	0.100	0.0500	02/28/1215:51	02/28/1212:17	M47B020012	M47B020008	HGB024S	NA	02/28/12
SL-187-SA7-SB-27.5-28.5AS	B201-03A	0.895	0.985	6.3	0.105	0.0526	02/28/1215:53	02/28/1212:17	M47B020013	M47B020008	HGB024S	02/22/12	02/22/12
SL-187-SA7-SB-27.5-28.5	B201-03	ND	0.985	6.3	0.105	0.0526	02/28/1215:55	02/28/1212:17	M47B020014	M47B020008	HGB024S	02/22/12	02/22/12
SL-187-SA7-SB-27.5-28.5DL	B201-03J	ND	4.93	6.3	0.526	0.263	02/28/1215:57	02/28/1212:17	M47B020015	M47B020008	HGB024S	02/22/12	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	0.939	0.992	6.3	0.106	0.0529	02/28/1215:59	02/28/1212:17	M47B020016	M47B020008	HGB024S	02/22/12	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	0.931	0.995	6.3	0.106	0.0531	02/28/1216:01	02/28/1212:17	M47B020017	M47B020008	HGB024S	02/22/12	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGB024SB	HGB024SL	HGB024SC		
LAB FILE ID:	M47B020010	M47B020011	M47B020012		
DATIME EXTRCTD:	02/28/1212:17	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	NA
DATIME ANALYZD:	02/28/1215:46	02/28/1215:48	02/28/1215:51	DATE RECEIVED:	02/28/12
PREP. BATCH:	HGB024S	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008	M47B020008		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.86	103	.833	.863	104	0	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	6.3
DILTN FACTR:	0.985	0.992	0.995		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
CONTROL NO.:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	M47B020014	M47B020016	M47B020017		
DATIME EXTRCTD:	02/28/1212:17	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	02/22/12
DATIME ANALYZD:	02/28/1215:55	02/28/1215:59	02/28/1216:01	DATE RECEIVED:	02/22/12
PREP. BATCH:	HGB024S	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008	M47B020008		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.882	.939	106	.885	.931	105	1	80-120	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: 6.3
DILTN FACTR: 0.985 0.985
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
CONTROL NO.: B201-03 B201-03A
LAB FILE ID: M47B020014 M47B020013
DATIME EXTRCTD: 02/28/1212:17 02/28/1212:17 DATE COLLECTED: 02/22/12
DATIME ANALYZD: 02/28/1215:55 02/28/1215:53 DATE RECEIVED: 02/22/12
PREP. BATCH: HGB024S HGB024S
CALIB. REF: M47B020008 M47B020008

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.876	.895	102	85-115

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	6.3
DILUTION FACTOR:	0.985	4.93		
SAMPLE ID:	SL-187-SA7-SB-27.5-	SL-187-SA7-SB-27.5-		
EMAX SAMP ID:	B201-03	B201-03J		
LAB FILE ID:	M47B020014	M47B020015		
DATE EXTRACTED:	02/28/1212:17	02/28/1212:17	DATE COLLECTED:	02/22/12
DATE ANALYZED:	02/28/1215:55	02/28/1215:57	DATE RECEIVED:	02/22/12
PREP. BATCH:	HGB024S	HGB024S		
CALIB. REF:	M47B020008	M47B020008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB043WB	ND	1	NA	0.100	0.0500	02/23/1215:00	NA	AB33-03	AB33-01	ICB043W	NA	NA
LCS1W	ICB043WL	2.02	1	NA	0.100	0.0500	02/23/1215:16	NA	AB33-04	AB33-01	ICB043W	NA	NA
LCD1W	ICB043WC	2.02	1	NA	0.100	0.0500	02/23/1215:32	NA	AB33-05	AB33-01	ICB043W	NA	NA
EB-SA7-SB-022212	B201-01	ND	1	NA	0.100	0.0500	02/23/1215:48	NA	AB33-06	AB33-01	ICB043W	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB043WB	ICB043WL	ICB043WC		
LAB FILE ID:	AB33-03	AB33-04	AB33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1215:00	02/23/1215:16	02/23/1215:32	DATE RECEIVED:	NA
PREP. BATCH:	ICB043W	ICB043W	ICB043W		
CALIB. REF:	AB33-01	AB33-01	AB33-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	2.00	2.02	101	2.00	2.02	101	0	90-110	20

METHOD 300.0
FLUORIDE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.00	0.500	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	6.07	1	NA	1.00	0.500	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	6.07	1	NA	1.00	0.500	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-187-SA7-SB-27.5-28.5	B201-03	3.48	1	6.3	1.07	0.534	02/24/1213:58	02/23/1214:29	AB35-22	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	10.4	1	6.3	1.07	0.534	02/24/1214:14	02/23/1214:29	AB35-23	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	10.4	1	6.3	1.07	0.534	02/24/1214:30	02/23/1214:29	AB35-24	AB35-13	ICB005S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	ND	6.00	6.07	101	6.00	6.07	101	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	6.3
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	AB35-22	AB35-23	AB35-24		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/24/1213:58	02/24/1214:14	02/24/1214:30	DATE RECEIVED:	02/22/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Fluoride	3.48	6.40	10.4	107	6.40	10.4	107	0	80-120	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB043WB	ND	1	NA	0.329	0.164	02/23/1215:00	NA	AB33-03	AB33-01	ICB043W	NA	NA
LCS1W	ICB043WL	6.67	1	NA	0.329	0.164	02/23/1215:16	NA	AB33-04	AB33-01	ICB043W	NA	NA
LCD1W	ICB043WC	6.61	1	NA	0.329	0.164	02/23/1215:32	NA	AB33-05	AB33-01	ICB043W	NA	NA
EB-SA7-SB-022212	B201-01	ND	1	NA	0.329	0.164	02/23/1215:48	NA	AB33-06	AB33-01	ICB043W	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB043WB	ICB043WL	ICB043WC		
LAB FILE ID:	AB33-03	AB33-04	AB33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1215:00	02/23/1215:16	02/23/1215:32	DATE RECEIVED:	NA
PREP. BATCH:	ICB043W	ICB043W	ICB043W		
CALIB. REF:	AB33-01	AB33-01	AB33-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	6.57	6.67	102	6.57	6.61	101	1	90-110	20

METHOD 300.0
NITRITE-NO2

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.50	0.750	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	19.9	1	NA	1.50	0.750	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	20.0	1	NA	1.50	0.750	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-187-SA7-SB-27.5-28.5	B201-03	ND	1	6.3	1.60	0.800	02/24/1213:58	02/23/1214:29	AB35-22	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	21.3	1	6.3	1.60	0.800	02/24/1214:14	02/23/1214:29	AB35-23	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	21.6	1	6.3	1.60	0.800	02/24/1214:30	02/23/1214:29	AB35-24	AB35-13	ICB005S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	19.7	19.9	101	19.7	20.0	101	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	6.3
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	AB35-22	AB35-23	AB35-24		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/24/1213:58	02/24/1214:14	02/24/1214:30	DATE RECEIVED:	02/22/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrite-NO2	ND	21.0	21.3	101	21.0	21.6	102	1	80-120	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICB043WB	ND	1	NA	0.443	0.222	02/23/1215:00	NA	AB33-03	AB33-01	ICB043W	NA	NA
LCS1W	ICB043WL	8.81	1	NA	0.443	0.222	02/23/1215:16	NA	AB33-04	AB33-01	ICB043W	NA	NA
LCD1W	ICB043WC	8.76	1	NA	0.443	0.222	02/23/1215:32	NA	AB33-05	AB33-01	ICB043W	NA	NA
EB-SA7-SB-022212	B201-01	ND	1	NA	0.443	0.222	02/23/1215:48	NA	AB33-06	AB33-01	ICB043W	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICB043WB	ICB043WL	ICB043WC		
LAB FILE ID:	AB33-03	AB33-04	AB33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1215:00	02/23/1215:16	02/23/1215:32	DATE RECEIVED:	NA
PREP. BATCH:	ICB043W	ICB043W	ICB043W		
CALIB. REF:	AB33-01	AB33-01	AB33-01		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	8.86	8.81	99	8.86	8.76	99	1	90-110	20

METHOD 300.0
NITRATE-NO3

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : D0

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	ICB005SB	ND	1	NA	1.50	0.750	02/24/1212:05	02/23/1214:29	AB35-15	AB35-13	ICB005S	NA	02/23/12
LCS1S	ICB005SL	26.4	1	NA	1.50	0.750	02/24/1212:21	02/23/1214:29	AB35-16	AB35-13	ICB005S	NA	02/23/12
LCD1S	ICB005SC	26.5	1	NA	1.50	0.750	02/24/1212:37	02/23/1214:29	AB35-17	AB35-13	ICB005S	NA	02/23/12
SL-187-SA7-SB-27.5-28.5	B201-03	2.65	1	6.3	1.60	0.800	02/24/1213:58	02/23/1214:29	AB35-22	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	30.8	1	6.3	1.60	0.800	02/24/1214:14	02/23/1214:29	AB35-23	AB35-13	ICB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	30.9	1	6.3	1.60	0.800	02/24/1214:30	02/23/1214:29	AB35-24	AB35-13	ICB005S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	ICB005SB	ICB005SL	ICB005SC		
LAB FILE ID:	AB35-15	AB35-16	AB35-17		
DATE EXTRACTED:	02/23/1214:29	02/23/1214:29	02/23/1214:29	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1212:05	02/24/1212:21	02/24/1212:37	DATE RECEIVED:	02/23/12
PREP. BATCH:	ICB005S	ICB005S	ICB005S		
CALIB. REF:	AB35-13	AB35-13	AB35-13		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	ND	26.6	26.4	99	26.6	26.5	100	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 300.0

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03 B201-03M B201-03S
LAB FILE ID: AB35-22 AB35-23 AB35-24
DATE EXTRACTED: 02/23/1214:29 02/23/1214:29 02/23/1214:29 DATE COLLECTED: 02/22/12 10:09
DATE ANALYZED: 02/24/1213:58 02/24/1214:14 02/24/1214:30 DATE RECEIVED: 02/22/12
PREP. BATCH: ICB005S ICB005S ICB005S
CALIB. REF: AB35-13 AB35-13 AB35-13

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Nitrate-NO3	2.65	28.4	30.8	99	28.4	30.9	100	0	80-120	20

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCB006WB	ND	1	NA	2.00	1.00	02/23/1223:25	NA	JB23023	JB23022	PCB006W	NA	NA
LCS1W	PCB006WL	24.7	1	NA	2.00	1.00	02/24/1200:07	NA	JB23025	JB23022	PCB006W	NA	NA
LCD1W	PCB006WC	25.0	1	NA	2.00	1.00	02/24/1200:28	NA	JB23026	JB23022	PCB006W	NA	NA
EB-SA7-SB-022212	B201-01	ND	1	NA	2.00	1.00	02/24/1200:49	NA	JB23027	JB23022	PCB006W	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCB006WB	PCB006WL	PCB006WC		
LAB FILE ID:	JB23023	JB23025	JB23026		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1223:25	02/24/1200:07	02/24/1200:28	DATE RECEIVED:	NA
PREP. BATCH:	PCB006W	PCB006W	PCB006W		
CALIB. REF:	JB23022	JB23022	JB23022		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.7	99	25.0	25.0	100	1	85-115	15

METHOD 314.0
PERCHLORATE

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCB005SB	ND	1	NA	20.0	10.0	02/23/1216:15	02/23/1214:30	JB23003	JB23002	PCB005S	NA	02/23/12
LCS1S	PCB005SL	247	1	NA	20.0	10.0	02/23/1216:57	02/23/1214:30	JB23005	JB23002	PCB005S	NA	02/23/12
LCD1S	PCB005SC	252	1	NA	20.0	10.0	02/23/1217:18	02/23/1214:30	JB23006	JB23002	PCB005S	NA	02/23/12
SL-187-SA7-SB-27.5-28.5	B201-03	ND	1	6.3	21.3	10.7	02/23/1221:18	02/23/1214:30	JB23017	JB23013	PCB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	99.3	1	6.3	21.3	10.7	02/23/1221:39	02/23/1214:30	JB23018	JB23013	PCB005S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	107	1	6.3	21.3	10.7	02/23/1222:00	02/23/1214:30	JB23019	JB23013	PCB005S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCB005SB	PCB005SL	PCB005SC		
LAB FILE ID:	JB23003	JB23005	JB23006		
DATE EXTRACTED:	02/23/1214:30	02/23/1214:30	02/23/1214:30	DATE COLLECTED:	NA
DATE ANALYZED:	02/23/1216:15	02/23/1216:57	02/23/1217:18	DATE RECEIVED:	02/23/12
PREP. BATCH:	PCB005S	PCB005S	PCB005S		
CALIB. REF:	JB23002	JB23002	JB23002		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	247	99	250	252	101	2	85-115	15

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	6.3
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	JB23017	JB23018	JB23019		
DATE EXTRACTED:	02/23/1214:30	02/23/1214:30	02/23/1214:30	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/23/1221:18	02/23/1221:39	02/23/1222:00	DATE RECEIVED:	02/22/12
PREP. BATCH:	PCB005S	PCB005S	PCB005S		
CALIB. REF:	JB23013	JB23013	JB23013		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	107	99.3	93	107	107	100	7	80-120	20

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HCB011WB	ND	1	NA	0.200	0.100	02/22/1219:00	NA	IB22003	IB22001	HCB011W	NA	NA
MBLK1W	HCB011WQ	ND	1	NA	0.200	0.100	02/22/1219:10	NA	IB22004	IB22001	HCB011W	NA	NA
LCS1W	HCB011WL	1.78	1	NA	0.200	0.100	02/22/1219:21	NA	IB22005	IB22001	HCB011W	NA	NA
LCS1W	HCB011WX	1.78	1	NA	0.200	0.100	02/22/1219:31	NA	IB22006	IB22001	HCB011W	NA	NA
LCD1W	HCB011WC	1.91	1	NA	0.200	0.100	02/22/1219:41	NA	IB22007	IB22001	HCB011W	NA	NA
LCD1W	HCB011WY	2.00	1	NA	0.200	0.100	02/22/1219:52	NA	IB22008	IB22001	HCB011W	NA	NA
EB-SA7-SB-022212	B201-01	ND	1	NA	0.200	0.100	02/22/1220:02	NA	IB22009	IB22001	HCB011W	02/22/1212:30	02/22/12
EB-SA7-SB-022212	B201-01R	ND	1	NA	0.200	0.100	02/22/1220:13	NA	IB22010	IB22001	HCB011W	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HCB011WQ	HCB011WX	HCB011WY		
LAB FILE ID:	IB22004	IB22006	IB22008		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1219:10	02/22/1219:31	02/22/1219:52	DATE RECEIVED:	NA
PREP. BATCH:	HCB011W	HCB011W	HCB011W		
CALIB. REF:	IB22001	IB22001	IB22001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	2.00	1.78	89	2.00	2.00	100	12	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HCB011WB	HCB011WL	HCB011WC		
LAB FILE ID:	IB22003	IB22005	IB22007		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	02/22/1219:00	02/22/1219:21	02/22/1219:41	DATE RECEIVED:	NA
PREP. BATCH:	HCB011W	HCB011W	HCB011W		
CALIB. REF:	IB22001	IB22001	IB22001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	2.00	1.78	89	2.00	1.91	96	7	80-120	20

METHOD 7199
HEXAVALENT CHROMIUM

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : SOIL
Instrument ID : I59

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HCB003SB	ND	1	NA	1.00	0.500	02/24/1210:50	02/23/1214:07	IB24003	IB24001	HCB003S	NA	02/23/12
MBLK1S	HCB003SQ	ND	1	NA	1.00	0.500	02/24/1211:00	02/23/1214:07	IB24004	IB24001	HCB003S	NA	02/23/12
LCS1S	CSB003SL	8.61	1	NA	1.00	0.500	02/24/1211:21	02/23/1214:07	IB24005	IB24001	CSB003S	NA	02/23/12
LCS1S	CSB003SX	9.61	1	NA	1.00	0.500	02/24/1211:31	02/23/1214:07	IB24006	IB24001	CSB003S	NA	02/23/12
LCS2S	CIB003SL	194	20	NA	20.0	10.0	02/24/1211:42	02/23/1214:07	IB24007	IB24001	CIB003S	NA	02/23/12
LCS2S	CIB003SX	200	20	NA	20.0	10.0	02/24/1211:52	02/23/1214:07	IB24008	IB24001	CIB003S	NA	02/23/12
SL-187-SA7-SB-27.5-28.5	B201-03	ND	1	6.3	1.07	0.534	02/24/1212:02	02/23/1214:07	IB24009	IB24001	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5	B201-03R	ND	1	6.3	1.07	0.534	02/24/1212:13	02/23/1214:07	IB24010	IB24001	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M	7.95	1	6.3	1.07	0.534	02/24/1219:15	02/23/1214:07	IB24033	IB24031	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03M1	8.03	1	6.3	1.07	0.534	02/24/1219:25	02/23/1214:07	IB24034	IB24031	HCB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S	8.20	1	6.3	1.07	0.534	02/24/1219:35	02/23/1214:07	IB24035	IB24031	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03S1	8.04	1	6.3	1.07	0.534	02/24/1219:46	02/23/1214:07	IB24036	IB24031	HCB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03G	229	20	6.3	21.3	10.7	02/24/1219:56	02/23/1214:07	IB24037	IB24031	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MS	B201-03G1	252	20	6.3	21.3	10.7	02/24/1220:07	02/23/1214:07	IB24038	IB24031	HCB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03H	196	20	6.3	21.3	10.7	02/24/1220:17	02/23/1214:07	IB24039	IB24031	CIB003S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5MSD	B201-03H1	218	20	6.3	21.3	10.7	02/24/1220:27	02/23/1214:07	IB24040	IB24031	HCB003S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SB CIB003SL
LAB FILE ID: IB24003 IB24007
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1210:50 02/24/1211:42 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	194	82	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 20
SAMPLE ID: MBLK1S
LAB SAMP ID: HCB003SQ CIB003SX
LAB FILE ID: IB24004 IB24008
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 DATE COLLECTED: NA
DATE ANALYZED: 02/24/1211:00 02/24/1211:52 DATE RECEIVED: 02/23/12
PREP. BATCH: HCB003S CIB003S
CALIB. REF: IB24001 IB24001

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	236	200	85	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SB	CSB003SL		
LAB FILE ID:	IB24003	IB24005		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1210:50	02/24/1211:21	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	8.62	86	80-120

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HCB003SQ	CSB003SX		
LAB FILE ID:	IB24004	IB24006		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	NA
DATE ANALYZED:	02/24/1211:00	02/24/1211:31	DATE RECEIVED:	02/23/12
PREP. BATCH:	HCB003S	CSB003S		
CALIB. REF:	IB24001	IB24001		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	10.0	9.61	96	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX: SOIL % MOISTURE: 6.3

DILUTION FACTOR:	1	20	20		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03R	B201-03G1	B201-03H1		
LAB FILE ID:	IB24010	IB24038	IB24040		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/24/1212:13	02/24/1220:07	02/24/1220:27	DATE RECEIVED:	02/22/12
PREP. BATCH:	CIB003S	HCB003S	HCB003S		
CALIB. REF:	IB24001	IB24031	IB24031		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	308	252	82	317	218	69*	14	75-125	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX: SOIL % MOISTURE: 6.3
DILUTION FACTOR: 1 1 1
SAMPLE ID: SL-187-SA7-SB-27.5-28.5
LAB SAMP ID: B201-03R B201-03M1 B201-03S1
LAB FILE ID: IB24010 IB24034 IB24036
DATE EXTRACTED: 02/23/1214:07 02/23/1214:07 02/23/1214:07 DATE COLLECTED: 02/22/12 10:09
DATE ANALYZED: 02/24/1212:13 02/24/1219:25 02/24/1219:46 DATE RECEIVED: 02/22/12
PREP. BATCH: CIB003S HCB003S HCB003S
CALIB. REF: IB24001 IB24031 IB24031

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	10.7	8.03	75	10.7	8.04	75	0	75-125	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX:	SOIL			% MOISTURE:	6.3
DILUTION FACTOR:	1	20	20		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03G	B201-03H		
LAB FILE ID:	IB24009	IB24037	IB24039		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/24/1212:02	02/24/1219:56	02/24/1220:17	DATE RECEIVED:	02/22/12
PREP. BATCH:	CIB003S	CIB003S	CIB003S		
CALIB. REF:	IB24001	IB24031	IB24031		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	308	229	74*	317	196	62*	16	75-125	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
BATCH NO.: 12B201
METHOD: 7199

MATRIX: SOIL % MOISTURE: 6.3

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
LAB SAMP ID:	B201-03	B201-03M	B201-03S		
LAB FILE ID:	IB24009	IB24033	IB24035		
DATE EXTRACTED:	02/23/1214:07	02/23/1214:07	02/23/1214:07	DATE COLLECTED:	02/22/12 10:09
DATE ANALYZED:	02/24/1212:02	02/24/1219:15	02/24/1219:35	DATE RECEIVED:	02/22/12
PREP. BATCH:	CIB003S	CIB003S	CIB003S		
CALIB. REF:	IB24001	IB24031	IB24031		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Hexavalent Chromium	ND	10.7	8.16	76	10.7	8.20	77	0	75-125	20

METHOD 9040C
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201
Matrix : WATER
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
EB-SA7-SB-022212	B201-01	5.55	1	NA	NA	NA	02/22/1218:04	02/22/1218:04	PHB032S01	PHB032S	PHB032S	02/22/1212:30	02/22/12
EB-SA7-SB-022212DUP	B201-01D	5.52	1	NA	NA	NA	02/22/1218:08	02/22/1218:04	PHB032S01	PHB032S	PHB032S	02/22/1212:30	02/22/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9040C
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 12B201 DATE RECEIVED: 02/22/12
SAMPLE ID: EB-SA7-SB-022212DUP DATE EXTRACTED: 02/22/12 18:04
CONTROL NO.: B201-01D DATE ANALYZED: 02/22/12 18:08

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	5.55	5.52	0.03	0.1

METHOD 9045D
PH

Client : CDM
Project : SSFL AREA IV COLLOCATED SAMPLING
Batch No. : 12B201

Matrix : SOIL
Instrument ID : 53

SAMPLE ID	EMAX SAMPLE ID	RESULTS (pH Unit)	DLF	MOIST	RL (pH Unit)	MDL (pH Unit)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
SL-187-SA7-SB-27.5-28.5	B201-03	8.20	1	6.3	NA	NA	02/22/1218:29	02/22/1218:29	PHB03S101	PHB031S	PHB031S	02/22/1210:09	02/22/12
SL-187-SA7-SB-27.5-28.5DUP	B201-03D	8.22	1	6.3	NA	NA	02/22/1218:31	02/22/1218:29	PHB031S02	PHB031S	PHB031S	02/22/1210:09	02/22/12

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
METHOD: METHOD 9045D
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 12B201 DATE RECEIVED: 02/22/12
SAMPLE ID: SL-187-SA7-SB-27.5-28.5DUP DATE EXTRACTED: 02/22/12 18:29
CONTROL NO.: B201-03D DATE ANALYZED: 02/22/12 18:31

ACCESSION:

PARAMETER	SAMPLE (pH Unit)	DUP. SAMPLE (pH Unit)	DIFFERENCE (pH Unit)	QC LIMIT (pH Unit)
pH	8.20	8.22	0.02	0.1

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 06, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/16/2012
Group Number: 1290162
SDG: DE293
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-146-SA5C-SB-47.5-48.5 Soil	6550046
SL-147-SA5C-SB-55.0-56.0 Soil	6550047
SL-147-SA5C-SB-40.0-41.0 Soil	6550048
SL-148-SA5C-SB-40.0-41.0 Soil	6550049
EB-SA5C-SB-021512 Water	6550050

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
1 COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



Matthew E. Barton
Senior Specialist

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Analysis Report

Sample Description: SL-146-SA5C-SB-47.5-48.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550046
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14647 SDG#: DE293-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	184	U	184	368	10
	The holding time was not met. The client was notified and the data reported.						
	Reporting limits were raised due to interference from the sample matrix.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	3,000	J	1,300	3,300	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9	1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9	1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	9.6		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 11:40	Matthew S Woods	10
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 16:51	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 18:18	Robert Brown	1

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

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Analysis Report

Sample Description: SL-146-SA5C-SB-47.5-48.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550046
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14647 SDG#: DE293-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-147-SA5C-SB-55.0-56.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550047
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14755 SDG#: DE293-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	18.5	U	18.5	37.0	1
	The holding time was not met. The client was notified and the data reported.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	1,300	U	1,300	3,400	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9	1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9	1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	11.0		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 12:00	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 17:00	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 16:42	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1

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

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Analysis Report

Sample Description: **SL-147-SA5C-SB-55.0-56.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550047
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14755 SDG#: DE293-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-147-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550048
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14740 SDG#: DE293-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	184	U	184	368	10
	Reporting limits were raised due to interference from the sample matrix.						
	The holding time was not met. The client was notified and the data reported.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	3,900		1,300	3,300	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9	1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9	1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	9.7		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 12:20	Matthew S Woods	10
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 17:29	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 17:33	Robert Brown	1

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

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Analysis Report

Sample Description: SL-147-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550048
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14740 SDG#: DE293-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-148-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550049
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14840 SDG#: DE293-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	178	U	178	355	10
	Reporting limits were raised due to interference from the sample matrix.						
	The holding time was not met. The client was notified and the data reported.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	4,900		1,300	3,200	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	6.7		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 12:40	Matthew S Woods	10
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 17:39	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 20:11	Robert Brown	1

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

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Analysis Report

Sample Description: SL-148-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550049
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

14840 SDG#: DE293-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: EB-SA5C-SB-021512 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5C-SB

LLI Sample # WW 6550050
LLI Group # 1290162
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 15:30

Submitted: 02/16/2012 10:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

678TB SDG#: DE293-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/l**	**ng/l**	**ng/l**	
10962	N-Nitrosodimethylamine	62-75-9	0.511 U	0.511	1.02	1
	Reporting limits were raised due to limited sample volume.					
HPLC Organics	**SW-846 8315A**		**ug/l**	**ug/l**	**ug/l**	
04144	20b Formaldehyde 8315A	50-00-0	10 J	10	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.079 U	0.079	0.25	1
10319	o-Terphenyl	84-15-1	0.079 U	0.079	0.25	1
10319	p-Terphenyl	92-94-4	0.079 U	0.079	0.25	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
10962	21b NDMA by 1625C	EPA 1625C	1	12052WAA026	02/27/2012 11:12	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	12052WAA026	02/21/2012 14:00	Wanda F Oswald	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	120480001A	02/20/2012 16:15	James H Place	1
01013	Formaldehyde Extraction	SW-846 8315A	1	120480001A	02/18/2012 10:15	Denise L Trimby	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	120520015A	02/24/2012 12:30	Robert Brown	1
10304	Terphenyls water prep	SW-846 3510C	1	120520015A	02/22/2012 05:45	Roman Kuropatkin	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290162
Reported: 03/06/12 at 02:05 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12052WAA026	Sample number(s): 6550050								
N-Nitrosodimethylamine	0.500 U	0.500	1.00	ng/l	82	88	70-130	6	30
Batch number: 12061SLE026	Sample number(s): 6550046-6550049								
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	91	89	70-130	1	30
Batch number: 120480001A	Sample number(s): 6550050								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	108	110	69-130	2	30
Batch number: 120520001A	Sample number(s): 6550046-6550049								
20a Formaldehyde 8315A	1,200 U	1,200.	3,000	ug/kg	100		80-126		
Batch number: 120520015A	Sample number(s): 6550050								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	92	96	61-108	4	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	92	96	75-125	4	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	96	96	63-110	0	20
Batch number: 120530010A	Sample number(s): 6550046-6550049								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	95	64-111	1	20
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	96	75-125	0	20
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	95	69-109	1	20
Batch number: 12060162401A	Sample number(s): 6550046-6550049								
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: 120520001A	Sample number(s): 6550046-6550049 UNSPK: 6550047								
20a Formaldehyde 8315A	101	104	80-120	3	50				
Batch number: 12060162401A	Sample number(s): 6550046-6550049 BKG: P552765								
Moisture Content by 160.3						10.2	9.9	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.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290162
Reported: 03/06/12 at 02:05 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: 21b. NDMA in Water
Batch number: 12052WAA026

	N-Nitrosodimethylamine-d6
6550050	124
Blank	93
LCS	100
LCSD	97
Limits:	50-150

Analysis Name: 21a NDMA by 1625C
Batch number: 12061SLE026

	N-Nitrosodimethylamine-d6
6550046	97
6550047	82
6550048	101
6550049	94
Blank	78
LCS	76
LCSD	78
Limits:	50-150

Analysis Name: 20b Formaldehyde 8315A
Batch number: 120480001A

	Butyraldehyde
6550050	76
Blank	76
LCS	79
LCSD	76
Limits:	45-145

Analysis Name: 20a Formaldehyde 8315A
Batch number: 120520001A

	Butyraldehyde
6550046	36*
6550047	32*
6550048	38*
6550049	35*
Blank	36*
LCS	34*
MS	35*
MSD	37*
Limits:	64-126

Analysis Name: 22b Terphenyls by 8015B

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290162
Reported: 03/06/12 at 02:05 PM

Surrogate Quality Control

Batch number: 120520015A

	n-Triacontane-d62
6550050	98
Blank	89
LCS	95
LCSD	97
Limits:	17-138

Analysis Name: 22a Terphenyls by 8015B
Batch number: 120530010A

	n-Triacontane-d62
6550046	102
6550047	94
6550048	95
6550049	117
Blank	100
LCS	99
LCSD	95
Limits:	19-152

*- 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 1290162 65500 46-50

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING	PRIMARY ANALYSES				SECONDARY ANALYSES				
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C. Samplers Signatures:						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	Other Instructions and Notes
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-146-SA5C-SB-47.5-48.5	2/13/12	1520	SOIL	NONE	1-16 oz Jar	X	X	X	X	SL-261 will arrive
SL-147-SA5C-SB-55.0-56.0	2/15/12	1025	SOIL	NONE	1-16 oz Jar	X	X	X	X	on 2/17/12 per PH.
SL-147-SA5C-SB-40.0-41.0	2/15/12	1415	SOIL	NONE	1-16 oz Jar	X	X	X	X	NLM 2/16/12
SL-148-SA5C-SB-40.0-41.0	2/14/12	1210	SOIL	NONE	1-16 oz Jar	X	X	X	X	
~~SL-261-SA5A-SB-8.5-9.5~~	~~2/13/12~~	~~1620~~	~~SOIL~~	~~NONE~~	~~1-16 oz Jar~~	~~X~~	~~X~~	~~X~~	~~X~~	
Relinquished by: (*Signature*)	Date/Time 2/15/2012 / 1630		Received for Laboratory by: (*Signature*) Suzette Lehman 2/16/12 10:00							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9857 5371							

13013 1290162 6550046-50

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMA	ONDARY ANAL			Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Eacores were collected Also report Tetralin under EPA Method 8270C. Samplers Signatures:						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
EB-SA7-SB-021512	02.15.12	1530	WATER	NONE	4-1 L Ambers	X	X	X	X	
EB-SA7-SB-021512	02.15.12	1530	WATER	NONE	1-250 mL glass	X	X	X	X	
Relinquished by: (*Signature*)	Date/Time		Received for Laboratory by: (*Signature*)							Laboratory:
	2/15/2012 / 1630		Suzette Lehman 2/16/12 10:00							Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s)							

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdmsmith.com]
Sent: Monday, February 27, 2012 1:56 PM
To: Nicole Maljovec
Subject: EB Sample Name

Attachments: COC_LLI_02_15_12.xlsx



COC_LLI_02_15_12
.xlsx (25 KB)

Hi Nicole

Looks like I made a name mistake on our EB sent on 2/15/12. Sorry for the mistake, can you guys please correct the name? It was originally SA7 but should be SA5C. I have attached a corrected COC.

Thanks!

Pam

Pamela Hartman
CDM Smith
532 W 6th St #400
Los Angeles, CA 90014
Cell- 714-514-4042
Direct 818-466-8007

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRI MA ONDARY ANAL RY				Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.										
Samplers Signatures:										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
EB-SA5C-SB-021512	02.15.12	1530	WATER	NONE	4-1 L Ambers	X	X	X	X	
EB-SA5C-SB-021512	02.15.12	1530	WATER	NONE	1-250 mL glass	X	X	X	X	
Relinquished by: (*Signature*)	Date/Time 2/15/2012 / 1630		Received for Laboratory by: (*Signature*)							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9857 5371							

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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

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

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 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:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 01, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/16/2012
Group Number: 1290164
SDG: DX158
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-146-SA5C-SB-47.5-48.5 Soil	6550052
SL-147-SA5C-SB-55.0-56.0 Soil	6550053
SL-147-SA5C-SB-40.0-41.0 Soil	6550054
SL-148-SA5C-SB-40.0-41.0 Soil	6550055
EB-SA5C-SB-021512 Water	6550056

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
ELECTRONIC COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



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Analysis Report

Sample Description: SL-146-SA5C-SB-47.5-48.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550052
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1464 SDG#: DX158-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	9.6	0.50	0.50	1

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

Sample Description: SL-146-SA5C-SB-47.5-48.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550052
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1464 SDG#: DX158-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0363 JQ	0.0329	1.11	1
11031	12378-PeCDD	40321-76-4	0.0666 JBQ	0.0324	5.53	1
11031	123478-HxCDD	39227-28-6	0.0863 JBQ	0.0335	5.53	1
11031	123678-HxCDD	57653-85-7	0.342 JBQ	0.0321	5.53	1
11031	123789-HxCDD	19408-74-3	0.147 JB	0.0316	5.53	1
11031	1234678-HpCDD	35822-46-9	10.4 B	0.0447	5.53	1
11031	OCDD	3268-87-9	145 B	0.0285	11.1	1
11031	2378-TCDF	51207-31-9	0.0447 JQ	0.0345	1.11	1
11031	12378-PeCDF	57117-41-6	0.0351 JB	0.0179	5.53	1
11031	23478-PeCDF	57117-31-4	0.124 JBQ	0.0187	5.53	1
11031	123478-HxCDF	70648-26-9	0.104 JB	0.0204	5.53	1
11031	123678-HxCDF	57117-44-9	0.104 JB	0.0180	5.53	1
11031	123789-HxCDF	72918-21-9	0.0459 JBQ	0.0233	5.53	1
11031	234678-HxCDF	60851-34-5	0.130 JB	0.0205	5.53	1
11031	1234678-HpCDF	67562-39-4	0.856 JB	0.0143	5.53	1
11031	1234789-HpCDF	55673-89-7	0.127 JBQ	0.0246	5.53	1
11031	OCDF	39001-02-0	2.39 JB	0.0282	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	109	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
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

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

Sample Description: **SL-146-SA5C-SB-47.5-48.5 Soil**
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550052
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1464 SDG#: DX158-01

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

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-146-SA5C-SB-47.5-48.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-146-SA5C-SB

LLI Sample # SW 6550052
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/13/2012 15:20

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1464 SDG#: DX158-01

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/21/2012 20:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-147-SA5C-SB-55.0-56.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550053
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1475 SDG#: DX158-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	11.0	0.50	0.50	1

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

Sample Description: SL-147-SA5C-SB-55.0-56.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550053
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1475 SDG#: DX158-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0330 U	0.0330	1.12	1
11031	12378-PeCDD	40321-76-4	0.0566 JBQ	0.0309	5.58	1
11031	123478-HxCDD	39227-28-6	0.0724 JB	0.0287	5.58	1
11031	123678-HxCDD	57653-85-7	0.160 JB	0.0306	5.58	1
11031	123789-HxCDD	19408-74-3	0.116 JB	0.0272	5.58	1
11031	1234678-HpCDD	35822-46-9	4.50 JB	0.0344	5.58	1
11031	OCDD	3268-87-9	43.2 B	0.0242	11.2	1
11031	2378-TCDF	51207-31-9	0.0393 J	0.0346	1.12	1
11031	12378-PeCDF	57117-41-6	0.0721 JBQ	0.0178	5.58	1
11031	23478-PeCDF	57117-31-4	0.158 JB	0.0182	5.58	1
11031	123478-HxCDF	70648-26-9	0.190 JB	0.0217	5.58	1
11031	123678-HxCDF	57117-44-9	0.146 JB	0.0189	5.58	1
11031	123789-HxCDF	72918-21-9	0.116 JB	0.0252	5.58	1
11031	234678-HxCDF	60851-34-5	0.170 JB	0.0209	5.58	1
11031	1234678-HpCDF	67562-39-4	0.581 JB	0.0130	5.58	1
11031	1234789-HpCDF	55673-89-7	0.153 JBQ	0.0221	5.58	1
11031	OCDF	39001-02-0	1.20 JB	0.0275	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	95	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	106	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
F Interference is present

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

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Analysis Report

Sample Description: SL-147-SA5C-SB-55.0-56.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550053
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1475 SDG#: DX158-02

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

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-147-SA5C-SB-55.0-56.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550053
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 10:25

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1475 SDG#: DX158-02

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/21/2012 21:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-147-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550054
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1474 SDG#: DX158-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	9.7	0.50	0.50	1

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

Sample Description: SL-147-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550054
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1474 SDG#: DX158-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0342 U	0.0342	1.10	1
11031	12378-PeCDD	40321-76-4	0.0465 JBQ	0.0327	5.52	1
11031	123478-HxCDD	39227-28-6	0.0592 JB	0.0266	5.52	1
11031	123678-HxCDD	57653-85-7	0.199 JB	0.0275	5.52	1
11031	123789-HxCDD	19408-74-3	0.150 JBQ	0.0264	5.52	1
11031	1234678-HpCDD	35822-46-9	3.74 JB	0.0288	5.52	1
11031	OCDD	3268-87-9	30.7 B	0.0199	11.0	1
11031	2378-TCDF	51207-31-9	0.0455 JQ	0.0327	1.10	1
11031	12378-PeCDF	57117-41-6	0.0576 JBQ	0.0167	5.52	1
11031	23478-PeCDF	57117-31-4	0.145 JBQ	0.0167	5.52	1
11031	123478-HxCDF	70648-26-9	0.109 JB	0.0208	5.52	1
11031	123678-HxCDF	57117-44-9	0.0892 JBQ	0.0185	5.52	1
11031	123789-HxCDF	72918-21-9	0.109 JBQ	0.0225	5.52	1
11031	234678-HxCDF	60851-34-5	0.129 JBQ	0.0192	5.52	1
11031	1234678-HpCDF	67562-39-4	0.542 JB	0.0120	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0986 JBQ	0.0183	5.52	1
11031	OCDF	39001-02-0	0.924 JB	0.0240	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	102	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
F Interference is present

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

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Analysis Report

Sample Description: **SL-147-SA5C-SB-40.0-41.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550054
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1474 SDG#: DX158-03

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

S *Saturation of detection signal*

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

Sample Description: SL-147-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-147-SA5C-SB

LLI Sample # SW 6550054
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 14:15

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1474 SDG#: DX158-03

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/21/2012 22:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-148-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550055
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1484 SDG#: DX158-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

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

Sample Description: SL-148-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550055
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1484 SDG#: DX158-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0257 U	0.0257	1.06	1
11031	12378-PeCDD	40321-76-4	0.0513 JBQ	0.0222	5.32	1
11031	123478-HxCDD	39227-28-6	0.0445 JBQ	0.0245	5.32	1
11031	123678-HxCDD	57653-85-7	0.157 JB	0.0244	5.32	1
11031	123789-HxCDD	19408-74-3	0.0920 JB	0.0228	5.32	1
11031	1234678-HpCDD	35822-46-9	3.62 JB	0.0223	5.32	1
11031	OCDD	3268-87-9	33.1 B	0.0188	10.6	1
11031	2378-TCDF	51207-31-9	0.0368 JQ	0.0252	1.06	1
11031	12378-PeCDF	57117-41-6	0.0776 JBQ	0.0140	5.32	1
11031	23478-PeCDF	57117-31-4	0.149 JB	0.0129	5.32	1
11031	123478-HxCDF	70648-26-9	0.0867 JB	0.0156	5.32	1
11031	123678-HxCDF	57117-44-9	0.0721 JB	0.0145	5.32	1
11031	123789-HxCDF	72918-21-9	0.0818 JB	0.0160	5.32	1
11031	234678-HxCDF	60851-34-5	0.122 JB	0.0145	5.32	1
11031	1234678-HpCDF	67562-39-4	0.556 JB	0.0138	5.32	1
11031	1234789-HpCDF	55673-89-7	0.0739 JB	0.0163	5.32	1
11031	OCDF	39001-02-0	1.00 JB	0.0181	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	82	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	79	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
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

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

Sample Description: **SL-148-SA5C-SB-40.0-41.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550055
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1484 SDG#: DX158-04

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

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-148-SA5C-SB-40.0-41.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA5C-SB

LLI Sample # SW 6550055
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/14/2012 12:10

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D1484 SDG#: DX158-04

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/21/2012 23:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: EB-SA5C-SB-021512 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5C-SB

LLI Sample # WW 6550056
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 15:30

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D14EB SDG#: DX158-05EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.342	U	0.342	2.17	1
10915	12378-PeCDD	40321-76-4	0.314	JBQ	0.305	10.8	1
10915	123478-HxCDD	39227-28-6	0.472	JBQ	0.260	10.8	1
10915	123678-HxCDD	57653-85-7	0.576	JBQ	0.260	10.8	1
10915	123789-HxCDD	19408-74-3	0.518	JBQ	0.264	10.8	1
10915	1234678-HpCDD	35822-46-9	4.73	JB	0.297	10.8	1
10915	OCDD	3268-87-9	7.75	JB	0.318	21.7	1
10915	2378-TCDF	51207-31-9	0.232	U	0.232	2.17	1
10915	12378-PeCDF	57117-41-6	0.183	JBQ	0.165	10.8	1
10915	23478-PeCDF	57117-31-4	0.683	JBQ	0.146	10.8	1
10915	123478-HxCDF	70648-26-9	0.415	JBQ	0.148	10.8	1
10915	123678-HxCDF	57117-44-9	0.309	JBQ	0.147	10.8	1
10915	123789-HxCDF	72918-21-9	0.337	JBQ	0.150	10.8	1
10915	234678-HxCDF	60851-34-5	0.602	JB	0.138	10.8	1
10915	1234678-HpCDF	67562-39-4	1.56	JBQ	0.159	10.8	1
10915	1234789-HpCDF	55673-89-7	0.416	JBQ	0.169	10.8	1
10915	OCDF	39001-02-0	1.74	JB	0.304	21.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	60	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	60	28 - 130
13C12-1234678-HpCDD	58	23 - 140
13C12-OCDD	47	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	58	28 - 143
13C12-1234789-HpCDF	59	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
F Interference is present

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

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Analysis Report

Sample Description: **EB-SA5C-SB-021512 Water**
SSFL Area IV Collocated Soil Sampling
EB-SA5C-SB

LLI Sample # WW 6550056
LLI Group # 1290164
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 15:30

Submitted: 02/16/2012 10:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

D14EB SDG#: DX158-05EB

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

S *Saturation of detection signal*

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
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	12053002	02/28/2012 06:53	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	12053002	02/22/2012 08:00	Deborah M Zimmerman	1

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

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Analysis Report

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290164
Reported: 03/01/12 at 07:35 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12060162401A	Sample number(s): 6550052-6550055								
Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 12051001	Sample number(s): 6550052-6550055								
2378-TCDD	0.0318 U	0.0318	1.00	ng/kg	101		67-158		
12378-PeCDD	0.0634 J	0.0322	5.00	ng/kg	100		70-142		
123478-HxCDD	0.0412 J	0.0213	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0525 J	0.0208	5.00	ng/kg	96		76-134		
123789-HxCDD	0.0889 J	0.0208	5.00	ng/kg	104		64-162		
1234678-HpCDD	0.402 J	0.0228	5.00	ng/kg	101		70-140		
OCDD	0.612 J	0.0186	10.0	ng/kg	98		78-144		
2378-TCDF	0.0357 U	0.0357	1.00	ng/kg	98		75-158		
12378-PeCDF	0.0370 J	0.0174	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0826 J	0.0180	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0640 J	0.0166	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0481 J	0.0136	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0621 J	0.0182	5.00	ng/kg	95		78-130		
234678-HxCDF	0.0644 J	0.0156	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.186 J	0.00890	5.00	ng/kg	88		82-122		
1234789-HpCDF	0.0572 J	0.0174	5.00	ng/kg	94		78-138		
OCDF	0.220 J	0.0293	10.0	ng/kg	93		63-170		
Batch number: 12053002	Sample number(s): 6550056								
2378-TCDD	0.274 U	0.274	2.00	pg/l	108		67-158		
12378-PeCDD	0.299 J	0.297	10.0	pg/l	106		70-142		
123478-HxCDD	0.365 J	0.219	10.0	pg/l	102		70-164		
123678-HxCDD	0.704 J	0.241	10.0	pg/l	100		76-134		
123789-HxCDD	0.491 J	0.231	10.0	pg/l	107		64-162		
1234678-HpCDD	4.04 J	0.271	10.0	pg/l	109		70-140		
OCDD	7.80 J	0.249	20.0	pg/l	104		78-144		
2378-TCDF	0.262 J	0.242	2.00	pg/l	93		75-158		
12378-PeCDF	0.352 J	0.156	10.0	pg/l	102		80-134		
23478-PeCDF	0.874 J	0.136	10.0	pg/l	97		68-160		
123478-HxCDF	0.642 J	0.128	10.0	pg/l	96		72-134		
123678-HxCDF	0.405 J	0.130	10.0	pg/l	97		84-130		
123789-HxCDF	0.757 J	0.132	10.0	pg/l	96		78-130		
234678-HxCDF	0.494 J	0.119	10.0	pg/l	95		70-156		
1234678-HpCDF	1.49 J	0.136	10.0	pg/l	94		82-122		
1234789-HpCDF	0.685 J	0.149	10.0	pg/l	97		78-138		
OCDF	1.68 J	0.253	20.0	pg/l	97		63-170		

*- 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: 1290164
Reported: 03/01/12 at 07:35 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: 12060162401A	Sample number(s): 6550052-6550055					BKG: P552765			
Moisture Content by 160.3						10.2	9.9	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: 10a Dioxin/Furan by EPA 1613B
Batch number: 12051001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6550052	81	85	76	89	76	75
6550053	77	84	77	86	76	70
6550054	75	88	78	84	78	74
6550055	79	92	81	83	82	80
Blank	77	84	79	96	83	78
OPR	76	79	72	83	75	71
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
6550052	109	69	64	86	78	80
6550053	106	70	65	84	78	78
6550054	102	74	68	85	78	78
6550055	87	79	70	89	80	79
Blank	122	73	70	87	87	89
OPR	111	66	62	83	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
6550052	81	85	82	76	96
6550053	80	85	80	75	95
6550054	79	87	79	76	94
6550055	81	81	71	82	94
Blank	87	95	93	69	94
OPR	81	86	84	67	87
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 10b Dioxin/Furan by EPA 1613B
Batch number: 12053002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290164
Reported: 03/01/12 at 07:35 AM

Surrogate Quality Control

6550056	64	71	64	64	66	66
Blank	67	73	62	63	64	66
OPR	56	64	64	65	66	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
6550056	58	59	52	64	60	61
Blank	59	58	54	65	58	58
OPR	65	69	70	57	61	62
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	
6550056	60	58	47	72	71	
Blank	58	55	50	68	72	
OPR	61	63	64	64	64	
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 1290164 6550052-56

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSES		SECONDARY ANALYSES		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C. Samplers Signatures:						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-146-SA5C-SB-47.5-48.5	2/13/12	1520	SOIL	NONE	1-16 oz Jar	X	X	X	X	SL-261 will arrived
SL-147-SA5C-SB-55.0-56.0	2/15/12	1025	SOIL	NONE	1-16 oz Jar	X	X	X	X	on 2/17/12 per PH.
SL-147-SA5C-SB-40.0-41.0	2/15/12	1415	SOIL	NONE	1-16 oz Jar	X	X	X	X	NM 2/16/12
SL-148-SA5C-SB-40.0-41.0	2/14/12	1210	SOIL	NONE	1-16 oz Jar	X	X	X	X	
~~SL-261-SA5A-SB-8.5-8.5~~	~~2/15/12~~	~~1620~~	~~SOIL~~	~~NONE~~	~~1-16 oz Jar~~	~~X~~	~~X~~	~~X~~	~~X~~	
Relinquished by: (*Signature*)	Date/Time		Received for Laboratory by: (*Signature*)							Laboratory:
	2/15/2012 / 1630		Suzette Lehman 2/16/12 10:00							Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s)							
			8767 9857 5371							

13013 1290164 6550052-56

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSES	SECONDARY ANALYSES			
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C. Samplers Signatures:						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	Other Instructions and Notes
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
EB-SA7-SB-021512	02.15.12	1530	WATER	NONE	4-1 L Ambers	X	X	X	X	
EB-SA7-SB-021512	02.15.12	1530	WATER	NONE	1-250 mL glass	X	X	X	X	
Relinquished by: (*Signature*)	Date/Time		Received for Laboratory by: (*Signature*)							Laboratory:
	2/15/2012 / 1630		Suzette Lehman 2/16/12 10:00							Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s)							

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdmsmith.com]
Sent: Monday, February 27, 2012 1:56 PM
To: Nicole Maljovec
Subject: EB Sample Name

Attachments: COC_LLI_02_15_12.xlsx



COC_LLI_02_15_12
.xlsx (25 KB)

Hi Nicole

Looks like I made a name mistake on our EB sent on 2/15/12. Sorry for the mistake, can you guys please correct the name? It was originally SA7 but should be SA5C. I have attached a corrected COC.

Thanks!

Pam

Pamela Hartman
CDM Smith
532 W 6th St #400
Los Angeles, CA 90014
Cell- 714-514-4042
Direct 818-466-8007

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSES				SECONDARY ANALYSES				Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.														
Samplers Signatures:														
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B					
EB-SA5C-SB-021512	02.15.12	1530	WATER	NONE	4-1 L Ambers	X	X	X	X					
EB-SA5C-SB-021512	02.15.12	1530	WATER	NONE	1-250 mL glass	X	X	X	X					
Relinquished by: (*Signature*)	Date/Time 2/15/2012 / 1630		Received for Laboratory by: (*Signature*)											Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9857 5371											

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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

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

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.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 06, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/18/2012
Group Number: 1290575
SDG: DE294
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-261-SA5A-SB-8.5-9.5 Soil	6552763
SL-260-SA5A-SB-5.5-6.6 Soil	6552764
SL-324-SA6-SB-25.0-26.0 Soil	6552765
SL-325-SA6-SB-22.0-23.0 Soil	6552766
SL-325-SA6-SB-26.0-27.0 Soil	6552767
SL-326-SA6-SB-23.0-24.0 Soil	6552768

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
1 COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



Matthew E. Barton
Senior Specialist

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Analysis Report

Sample Description: SL-261-SA5A-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552763
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9401 SDG#: DE294-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	17.6	U	17.6	35.2	1
	The holding time was not met. The client was notified and the data reported.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	1,300	U	1,300	3,200	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	5.2		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 12:59	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 17:48	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 14:01	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1

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

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Analysis Report

Sample Description: SL-261-SA5A-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552763
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9401 SDG#: DE294-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552764
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9402 SDG#: DE294-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	18.3	U	18.3	36.5	1
	The holding time was not met. The client was notified and the data reported.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	1,300	U	1,300	3,300	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9	1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9	1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	9.4		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 13:19	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 17:58	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 15:57	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1

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

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Analysis Report

Sample Description: SL-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552764
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9402 SDG#: DE294-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-324-SA6-SB-25.0-26.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-324-SA6-SB

LLI Sample # SW 6552765
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 14:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9403 SDG#: DE294-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9	1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9	1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	10.2		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 14:24	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-325-SA6-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552766
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 11:45

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9404 SDG#: DE294-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	207	U	207	414	10
	Reporting limits were raised due to interference from the sample matrix.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	1,500	U	1,500	3,700	1
	The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.9	U	1.9	4.4	1
10318	o-Terphenyl	84-15-1	1.9	U	1.9	4.4	1
10318	p-Terphenyl	92-94-4	1.9	U	1.9	4.4	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	19.8		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 13:39	Matthew S Woods	10
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 18:17	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 19:26	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-325-SA6-SB-26.0-27.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552767
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 12:20

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9405 SDG#: DE294-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	17.9	U	17.9	35.9	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	7,600		1,300	3,200	1

The recovery for the sample, blank, and LCS 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 of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.

GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	7.4		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 13:59	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	2	120520001A	02/22/2012 18:26	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120520001A	02/21/2012 15:00	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 14:47	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-326-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-326-SA6-SB

LLI Sample # SW 6552768
LLI Group # 1290575
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 08:55

Submitted: 02/18/2012 09:00
Reported: 03/06/2012 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

E9406 SDG#: DE294-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	6.9		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120530010A	02/24/2012 15:33	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120530010A	02/23/2012 12:10	Denise L Trimby	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290575
Reported: 03/06/12 at 02:05 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12061SLE026	Sample number(s): 6552763-6552764,6552766-6552767								
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	91	89	70-130	1	30
Batch number: 120520001A	Sample number(s): 6552763-6552764,6552766-6552767								
20a Formaldehyde 8315A	1,200 U	1,200.	3,000	ug/kg	100		80-126		
Batch number: 120530010A	Sample number(s): 6552763-6552768								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	95	64-111	1	20
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	96	75-125	0	20
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	95	95	69-109	1	20
Batch number: 12060162401A	Sample number(s): 6552763-6552768								
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: 120520001A	Sample number(s): 6552763-6552764,6552766-6552767 UNSPK: P550047								
20a Formaldehyde 8315A	101	104	80-120	3	50				
Batch number: 12060162401A	Sample number(s): 6552763-6552768 BKG: 6552765								
Moisture Content by 160.3						10.2	9.9	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: 21a NDMA by 1625C
Batch number: 12061SLE026

	N-Nitrosodimethylamine-d6
6552763	76

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290575
Reported: 03/06/12 at 02:05 PM

Surrogate Quality Control

6552764	67
6552766	85
6552767	77
Blank	78
LCS	76
LCSD	78
Limits:	50-150

Analysis Name: 20a Formaldehyde 8315A
Batch number: 120520001A

Butyraldehyde

6552763	35*
6552764	36*
6552766	40*
6552767	35*
Blank	36*
LCS	34*
MS	35*
MSD	37*
Limits:	64-126

Analysis Name: 22a Terphenyls by 8015B
Batch number: 120530010A

n-Triacontane-d62

6552763	97
6552764	94
6552765	100
6552766	294*
6552767	107
6552768	92
Blank	100
LCS	99
LCSD	95
Limits:	19-152

*- 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.

acct#13013 Gp#1290575 Sample#65527163-68

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSES	SECONDARY ANALYSES			Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.										
Samplers Signatures:										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
SL-261-SA5A-SB-8.5-9.5	2/15/12	1620	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-260-SA5A-SB-5.5-6.6	2/16/12	0920	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-324-SA6-SB-25.0-26.0	2/16/12	1420	SOIL	NONE	1-16 oz Jar				X	
SL-325-SA6-SB-22.0-23.0	2/17/12	1145	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-325-SA6-SB-26.0-27.0	2/17/12	1220	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-326-SA6-SB-23.0-24.0	2/17/12	0855	SOIL	NONE	1-16 oz Jar				X	
Relinquished by: (*Signature*)	Date/Time 2/17/2012 / 1630		Received for Laboratory by: (*Signature*)							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*) Brandy Bunk	Date/Time 2-18-12 900		Airbill No.(s) 8767 9858 4480							

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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

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

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 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:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 01, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/18/2012
Group Number: 1290576
SDG: DX158
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-261-SA5A-SB-8.5-9.5 Soil	6552769
SL-260-SA5A-SB-5.5-6.6 Soil	6552770
SL-325-SA6-SB-22.0-23.0 Soil	6552771
SL-325-SA6-SB-26.0-27.0 Soil	6552772

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
ELECTRONIC COPY TO	Data Package Group	

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



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Analysis Report

Sample Description: SL-261-SA5A-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552769
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5806 SDG#: DX158-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.2	0.50	0.50	1

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

Sample Description: SL-261-SA5A-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552769
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5806 SDG#: DX158-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0296 U	0.0296	1.05	1
11031	12378-PeCDD	40321-76-4	0.0322 JBQ	0.0268	5.24	1
11031	123478-HxCDD	39227-28-6	0.0486 JB	0.0226	5.24	1
11031	123678-HxCDD	57653-85-7	0.0809 JBQ	0.0215	5.24	1
11031	123789-HxCDD	19408-74-3	0.0726 JB	0.0214	5.24	1
11031	1234678-HpCDD	35822-46-9	0.517 JB	0.0223	5.24	1
11031	OCDD	3268-87-9	1.16 JB	0.0255	10.5	1
11031	2378-TCDF	51207-31-9	0.0414 JQ	0.0267	1.05	1
11031	12378-PeCDF	57117-41-6	0.0235 JB	0.0136	5.24	1
11031	23478-PeCDF	57117-31-4	0.0461 JBQ	0.0130	5.24	1
11031	123478-HxCDF	70648-26-9	0.0683 JB	0.0137	5.24	1
11031	123678-HxCDF	57117-44-9	0.0584 JB	0.0119	5.24	1
11031	123789-HxCDF	72918-21-9	0.0388 JB	0.0153	5.24	1
11031	234678-HxCDF	60851-34-5	0.0956 JB	0.0123	5.24	1
11031	1234678-HpCDF	67562-39-4	0.158 JB	0.00897	5.24	1
11031	1234789-HpCDF	55673-89-7	0.0575 JB	0.0149	5.24	1
11031	OCDF	39001-02-0	0.277 JB	0.0274	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	60	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

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

Sample Description: **SL-261-SA5A-SB-8.5-9.5 Soil**
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552769
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5806 SDG#: DX158-06

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

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-261-SA5A-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-261-SA5A-SB

LLI Sample # SW 6552769
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/15/2012 16:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5806 SDG#: DX158-06

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/22/2012 00:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552770
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5807 SDG#: DX158-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	9.4	0.50	0.50	1

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

Sample Description: SL-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552770
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5807 SDG#: DX158-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0341 JQ	0.0322	1.09	1
11031	12378-PeCDD	40321-76-4	0.0412 JBQ	0.0284	5.43	1
11031	123478-HxCDD	39227-28-6	0.0533 JBQ	0.0220	5.43	1
11031	123678-HxCDD	57653-85-7	0.0929 JBQ	0.0226	5.43	1
11031	123789-HxCDD	19408-74-3	0.107 JB	0.0225	5.43	1
11031	1234678-HpCDD	35822-46-9	1.31 JB	0.0242	5.43	1
11031	OCDD	3268-87-9	12.1 B	0.0221	10.9	1
11031	2378-TCDF	51207-31-9	0.0333 U	0.0333	1.09	1
11031	12378-PeCDF	57117-41-6	0.0357 JB	0.0155	5.43	1
11031	23478-PeCDF	57117-31-4	0.0584 JB	0.0159	5.43	1
11031	123478-HxCDF	70648-26-9	0.101 JBQ	0.0162	5.43	1
11031	123678-HxCDF	57117-44-9	0.0735 JBQ	0.0145	5.43	1
11031	123789-HxCDF	72918-21-9	0.0948 JB	0.0208	5.43	1
11031	234678-HxCDF	60851-34-5	0.105 JB	0.0148	5.43	1
11031	1234678-HpCDF	67562-39-4	0.362 JB	0.0106	5.43	1
11031	1234789-HpCDF	55673-89-7	0.0803 JB	0.0203	5.43	1
11031	OCDF	39001-02-0	0.778 JB	0.0267	10.9	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	66	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

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

Sample Description: SL-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552770
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5807 SDG#: DX158-07

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

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-260-SA5A-SB-5.5-6.6 Soil
SSFL Area IV Collocated Soil Sampling
SL-260-SA5A-SB

LLI Sample # SW 6552770
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 09:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5807 SDG#: DX158-07

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/22/2012 01:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-325-SA6-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552771
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 11:45

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5808 SDG#: DX158-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	19.8	0.50	0.50	1

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

Sample Description: SL-325-SA6-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552771
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 11:45

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5808 SDG#: DX158-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	8.99		0.0906	1.24	1
11031	12378-PeCDD	40321-76-4	15.1	B	0.0799	6.22	1
11031	123478-HxCDD	39227-28-6	6.11	JB	0.0680	6.22	1
11031	123678-HxCDD	57653-85-7	25.1	B	0.0714	6.22	1
11031	123789-HxCDD	19408-74-3	34.5	B	0.0676	6.22	1
11031	1234678-HpCDD	35822-46-9	411	B	0.0990	6.22	1
11031	OCDD	3268-87-9	1,710	B	0.0551	12.4	1
11031	2378-TCDF	51207-31-9	0.306	J	0.0364	1.24	1
11031	12378-PeCDF	57117-41-6	0.170	JBQ	0.0213	6.22	1
11031	23478-PeCDF	57117-31-4	0.492	JB	0.0207	6.22	1
11031	123478-HxCDF	70648-26-9	0.642	JB	0.0289	6.22	1
11031	123678-HxCDF	57117-44-9	0.711	JB	0.0283	6.22	1
11031	123789-HxCDF	72918-21-9	0.0309	U	0.0309	6.22	1
11031	234678-HxCDF	60851-34-5	1.11	JB	0.0269	6.22	1
11031	1234678-HpCDF	67562-39-4	13.8	B	0.0208	6.22	1
11031	1234789-HpCDF	55673-89-7	0.852	JB	0.0281	6.22	1
11031	OCDF	39001-02-0	21.5	B	0.0314	12.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	82	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	73	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

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

Sample Description: SL-325-SA6-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552771
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 11:45

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5808 SDG#: DX158-08

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

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-325-SA6-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552771
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 11:45

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5808 SDG#: DX158-08

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/22/2012 02:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-325-SA6-SB-26.0-27.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552772
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 12:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5809 SDG#: DX158-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1

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

Sample Description: SL-325-SA6-SB-26.0-27.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552772
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 12:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5809 SDG#: DX158-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0390 JQ	0.0338	1.07	1
11031	12378-PeCDD	40321-76-4	0.114 JBQ	0.0286	5.37	1
11031	123478-HxCDD	39227-28-6	0.0569 JB	0.0247	5.37	1
11031	123678-HxCDD	57653-85-7	0.107 JB	0.0260	5.37	1
11031	123789-HxCDD	19408-74-3	0.139 JB	0.0255	5.37	1
11031	1234678-HpCDD	35822-46-9	0.786 JBQ	0.0266	5.37	1
11031	OCDD	3268-87-9	2.18 JB	0.0270	10.7	1
11031	2378-TCDF	51207-31-9	0.0323 JQ	0.0298	1.07	1
11031	12378-PeCDF	57117-41-6	0.0980 JBQ	0.0149	5.37	1
11031	23478-PeCDF	57117-31-4	0.140 JBQ	0.0144	5.37	1
11031	123478-HxCDF	70648-26-9	0.0807 JBQ	0.0168	5.37	1
11031	123678-HxCDF	57117-44-9	0.0847 JBQ	0.0130	5.37	1
11031	123789-HxCDF	72918-21-9	0.0346 JBQ	0.0170	5.37	1
11031	234678-HxCDF	60851-34-5	0.0760 JBQ	0.0133	5.37	1
11031	1234678-HpCDF	67562-39-4	0.199 JB	0.0127	5.37	1
11031	1234789-HpCDF	55673-89-7	0.0603 JB	0.0227	5.37	1
11031	OCDF	39001-02-0	0.220 JB	0.0248	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	106	25 - 181
13C12-123478-HxCDD	99	32 - 141
13C12-123678-HxCDD	97	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	103	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	110	24 - 185
13C12-23478-PeCDF	101	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	100	26 - 123
13C12-234678-HxCDF	97	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	130	28 - 143
13C12-1234789-HpCDF	81	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
F Interference is present

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

Sample Description: SL-325-SA6-SB-26.0-27.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552772
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 12:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5809 SDG#: DX158-09

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

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-325-SA6-SB-26.0-27.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-325-SA6-SB

LLI Sample # SW 6552772
LLI Group # 1290576
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 12:20

Submitted: 02/18/2012 09:00
Reported: 03/01/2012 07:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5809 SDG#: DX158-09

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
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12051001	02/22/2012 03:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12051001	02/20/2012 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290576
Reported: 03/01/12 at 07:35 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12060162401A	Sample number(s): 6552769-6552772								
Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 12051001	Sample number(s): 6552769-6552772								
2378-TCDD	0.0318 U	0.0318	1.00	ng/kg	101		67-158		
12378-PeCDD	0.0634 J	0.0322	5.00	ng/kg	100		70-142		
123478-HxCDD	0.0412 J	0.0213	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0525 J	0.0208	5.00	ng/kg	96		76-134		
123789-HxCDD	0.0889 J	0.0208	5.00	ng/kg	104		64-162		
1234678-HpCDD	0.402 J	0.0228	5.00	ng/kg	101		70-140		
OCDD	0.612 J	0.0186	10.0	ng/kg	98		78-144		
2378-TCDF	0.0357 U	0.0357	1.00	ng/kg	98		75-158		
12378-PeCDF	0.0370 J	0.0174	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0826 J	0.0180	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0640 J	0.0166	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0481 J	0.0136	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0621 J	0.0182	5.00	ng/kg	95		78-130		
234678-HxCDF	0.0644 J	0.0156	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.186 J	0.00890	5.00	ng/kg	88		82-122		
1234789-HpCDF	0.0572 J	0.0174	5.00	ng/kg	94		78-138		
OCDF	0.220 J	0.0293	10.0	ng/kg	93		63-170		

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: 12060162401A	Sample number(s): 6552769-6552772					BKG: P552765			
Moisture Content by 160.3						10.2	9.9	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.

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1290576
Reported: 03/01/12 at 07:35 AM

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 12051001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6552769	70	83	72	82	74	67
6552770	73	83	73	87	76	64
6552771	80	90	79	83	80	79
6552772	81	101	79	100	97	84
Blank	77	84	79	96	83	78
OPR	76	79	72	83	75	71
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
6552769	104	67	60	86	77	79
6552770	110	66	59	85	80	80
6552771	89	73	61	85	77	78
6552772	130	81	74	106	99	97
Blank	122	73	70	87	87	89
OPR	111	66	62	83	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
6552769	80	83	78	66	91
6552770	81	90	80	72	94
6552771	78	79	67	82	92
6552772	96	103	95	79	110
Blank	87	95	93	69	94
OPR	81	86	84	67	87
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#1290576 Sample#6552769-72

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSIS	SECONDARY ANALYSIS			Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
Samplers Signatures:										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-261-SA5A-SB-8.5-9.5	2/15/12	1620	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-260-SA5A-SB-5.5-6.6	2/16/12	0920	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-324-SA6-SB-25.0-26.0	2/16/12	1420	SOIL	NONE	1-16 oz Jar				X	
SL-325-SA6-SB-22.0-23.0	2/17/12	1145	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-325-SA6-SB-26.0-27.0	2/17/12	1220	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-326-SA6-SB-23.0-24.0	2/17/12	0855	SOIL	NONE	1-16 oz Jar				X	
Relinquished by: (*Signature*)	Date/Time 2/17/2012 / 1630		Received for Laboratory by: (*Signature*)							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*) Brandy Bunk	Date/Time 2-18-12 900		Airbill No.(s) 8767 9858 4480							

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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

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

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 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:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 01, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/22/2012
Group Number: 1291110
SDG: DX158
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-324-SA6-SB-25.0-26.0 Soil	6555638
SL-326-SA6-SB-23.0-24.0 Soil	6555639

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
ELECTRONIC COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



Michele J. Smith
Senior Specialist

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Analysis Report

Sample Description: SL-324-SA6-SB-25.0-26.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-324-SA6-SB-25.0-26.0

LLI Sample # SW 6555638
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 14:20

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL324 SDG#: DX158-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1

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

Sample Description: SL-324-SA6-SB-25.0-26.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-324-SA6-SB-25.0-26.0

LLI Sample # SW 6555638
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 14:20

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL324 SDG#: DX158-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0304 JB	0.0286	1.09	1
11031	12378-PeCDD	40321-76-4	0.0596 JBQ	0.0267	5.47	1
11031	123478-HxCDD	39227-28-6	0.0367 JB	0.0206	5.47	1
11031	123678-HxCDD	57653-85-7	0.0452 JB	0.0227	5.47	1
11031	123789-HxCDD	19408-74-3	0.0844 JB	0.0216	5.47	1
11031	1234678-HpCDD	35822-46-9	0.398 JB	0.0213	5.47	1
11031	OCDD	3268-87-9	0.902 JB	0.0194	10.9	1
11031	2378-TCDF	51207-31-9	0.0237 U	0.0237	1.09	1
11031	12378-PeCDF	57117-41-6	0.0427 JB	0.0121	5.47	1
11031	23478-PeCDF	57117-31-4	0.0409 JBQ	0.0131	5.47	1
11031	123478-HxCDF	70648-26-9	0.0513 JB	0.0129	5.47	1
11031	123678-HxCDF	57117-44-9	0.0483 JB	0.0112	5.47	1
11031	123789-HxCDF	72918-21-9	0.0593 JBQ	0.0163	5.47	1
11031	234678-HxCDF	60851-34-5	0.0720 JBQ	0.0125	5.47	1
11031	1234678-HpCDF	67562-39-4	0.155 JB	0.00913	5.47	1
11031	1234789-HpCDF	55673-89-7	0.0606 JB	0.0176	5.47	1
11031	OCDF	39001-02-0	0.215 JB	0.0215	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	107	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

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

Sample Description: **SL-324-SA6-SB-25.0-26.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-324-SA6-SB-25.0-26.0

LLI Sample # SW 6555638
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 14:20

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL324 SDG#: DX158-10

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

S *Saturation of detection signal*

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

Sample Description: SL-324-SA6-SB-25.0-26.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-324-SA6-SB-25.0-26.0

LLI Sample # SW 6555638
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/16/2012 14:20

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL324 SDG#: DX158-10

General Sample Comments

State of California Lab Certification No. 2501
This sample was originally submitted to the laboratory on 02/18/12 at 09:00. We received authorization for further testing on 02/22/12.

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 13:43	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-326-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-326-SA6-SB-23.0-24.0

LLI Sample # SW 6555639
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 08:55

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL326 SDG#: DX158-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.9	0.50	0.50	1

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

Sample Description: SL-326-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-326-SA6-SB-23.0-24.0

LLI Sample # SW 6555639
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 08:55

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL326 SDG#: DX158-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0269 U	0.0269	1.07	1
11031	12378-PeCDD	40321-76-4	0.0259 U	0.0259	5.37	1
11031	123478-HxCDD	39227-28-6	0.0626 JBQ	0.0243	5.37	1
11031	123678-HxCDD	57653-85-7	0.153 JB	0.0269	5.37	1
11031	123789-HxCDD	19408-74-3	0.0971 JBQ	0.0253	5.37	1
11031	1234678-HpCDD	35822-46-9	2.46 JB	0.0240	5.37	1
11031	OCDD	3268-87-9	22.5 B	0.0187	10.7	1
11031	2378-TCDF	51207-31-9	0.0281 U	0.0281	1.07	1
11031	12378-PeCDF	57117-41-6	0.0451 JBQ	0.0149	5.37	1
11031	23478-PeCDF	57117-31-4	0.0994 JBQ	0.0154	5.37	1
11031	123478-HxCDF	70648-26-9	0.0917 JBQ	0.0215	5.37	1
11031	123678-HxCDF	57117-44-9	0.0608 JBQ	0.0190	5.37	1
11031	123789-HxCDF	72918-21-9	0.0367 JBQ	0.0226	5.37	1
11031	234678-HxCDF	60851-34-5	0.122 JB	0.0207	5.37	1
11031	1234678-HpCDF	67562-39-4	0.378 JBQ	0.0143	5.37	1
11031	1234789-HpCDF	55673-89-7	0.0992 JBQ	0.0221	5.37	1
11031	OCDF	39001-02-0	0.612 JB	0.0229	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	73	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
F Interference is present

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

Sample Description: **SL-326-SA6-SB-23.0-24.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-326-SA6-SB-23.0-24.0

LLI Sample # SW 6555639
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 08:55

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL326 SDG#: DX158-11

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

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-326-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-326-SA6-SB-23.0-24.0

LLI Sample # SW 6555639
LLI Group # 1291110
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/17/2012 08:55

Submitted: 02/22/2012 15:35
Reported: 03/01/2012 07:36

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

SL326 SDG#: DX158-11

General Sample Comments

State of California Lab Certification No. 2501
This sample was originally submitted to the laboratory on 02/18/12 at 09:00. We received authorization for further testing on 02/22/12.

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 14:39	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291110
Reported: 03/01/12 at 07:36 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12060162401A	Sample number(s): 6555638-6555639								
Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 12055002	Sample number(s): 6555638-6555639								
2378-TCDD	0.0398 J	0.0325	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0491 J	0.0304	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0412 J	0.0185	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0496 J	0.0204	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0827 J	0.0195	5.00	ng/kg	106		64-162		
1234678-HpCDD	0.340 J	0.0196	5.00	ng/kg	103		70-140		
OCDD	0.648 J	0.0167	10.0	ng/kg	99		78-144		
2378-TCDF	0.0329 J	0.0320	1.00	ng/kg	106		75-158		
12378-PeCDF	0.0597 J	0.0140	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0791 J	0.0155	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0922 J	0.0154	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0562 J	0.0129	5.00	ng/kg	92		84-130		
123789-HxCDF	0.0757 J	0.0197	5.00	ng/kg	92		78-130		
234678-HxCDF	0.0761 J	0.0142	5.00	ng/kg	91		70-156		
1234678-HpCDF	0.161 J	0.00940	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0824 J	0.0199	5.00	ng/kg	93		78-138		
OCDF	0.231 J	0.0275	10.0	ng/kg	93		63-170		

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: 12060162401A	Sample number(s): 6555638-6555639					BKG: P552765			
Moisture Content by 160.3						10.2	9.9	2	20
Batch number: 12055002	Sample number(s): 6555638-6555639					UNSPK: P556493			
2378-TCDD	105	106	67-158	1	25				
12378-PeCDD	106	106	70-142	0	25				
123478-HxCDD	98	101	70-164	2	25				
123678-HxCDD	100	97	76-134	3	25				
123789-HxCDD	108	105	64-162	3	25				
1234678-HpCDD	104	105	70-140	1	25				

*- 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: 1291110
Reported: 03/01/12 at 07:36 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	98	78-144	1	25				
2378-TCDF	101	102	75-158	1	25				
12378-PeCDF	99	100	80-134	0	25				
23478-PeCDF	94	95	68-160	0	25				
123478-HxCDF	92	93	72-134	1	25				
123678-HxCDF	92	92	84-130	1	25				
123789-HxCDF	94	92	78-130	2	25				
234678-HxCDF	90	90	70-156	1	25				
1234678-HpCDF	88	88	82-122	0	25				
1234789-HpCDF	93	92	78-138	2	25				
OCDF	93	93	63-170	0	25				

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: 10a Dioxin/Furan by EPA 1613B
Batch number: 12055002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6555638	66	71	72	85	72	62
6555639	74	78	74	83	75	75
Blank	58	60	59	74	63	51
MS	72	76	76	90	78	66
MSD	66	70	71	87	73	58
OPR	62	60	56	74	63	52
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
6555638	107	62	61	70	78	77
6555639	104	73	75	74	79	76
Blank	103	54	55	66	73	71
MS	116	67	67	75	83	82
MSD	105	58	56	69	77	78
OPR	107	54	55	72	77	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
6555638	77	85	80	67	84
6555639	78	90	89	73	87
Blank	70	79	83	52	71
MS	80	92	88	73	92
MSD	76	82	76	69	85
OPR	76	84	87	52	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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291110
Reported: 03/01/12 at 07:36 AM

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.

13013/1291110/6555638-39

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY	SECONDARY	ANALYSIS		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
Samplers Signatures:										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-261-SA5A-SB-8.5-9.5	2/15/12	1620	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-260-SA5A-SB-5.5-6.6	2/16/12	0920	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-324-SA6-SB-25.0-26.0	2/16/12	1420	SOIL	NONE	1-16 oz Jar	X			X	
SL-325-SA6-SB-22.0-23.0	2/17/12	1145	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-325-SA6-SB-26.0-27.0	2/17/12	1220	SOIL	NONE	1-16 oz Jar	X	X	X	X	
SL-326-SA6-SB-23.0-24.0	2/17/12	0855	SOIL	NONE	1-16 oz Jar	X			X	
Relinquished by: (*Signature*)	Date/Time 2/17/2012 / 1630		Received for Laboratory by: (*Signature*)							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9858 4480							

SL-324 & SL-326 were entered for Dioxin/Furan per PH on 2/22/12.

NM 2/23/12

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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

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

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 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:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

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

March 07, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/23/2012
Group Number: 1291292
SDG: DE295
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-323-SA6-SB-23.0-24.0 Soil	6556463
SL-186-SA7-SB-27.0-28.0 Soil	6556464
SL-187-SA7-SB-27.5-28.5 Soil	6556465
SL-187-SA7-SB-27.5-28.5 MS Soil	6556466
SL-187-SA7-SB-27.5-28.5 MSD Soil	6556467
SL-187-SA7-SB-27.5-28.5 RL MS Soil	6556468
SL-187-SA7-SB-27.5-28.5 RL LCS Soil	6556469
SL-188-SA7-SB-18.5-19.5 Soil	6556470
SL-188-SA7-SB-22.0-23.0 Soil	6556471
DUP10-SA7-QC-022112 Soil	6556472
EB-SA7-SB-022212 Water	6556473

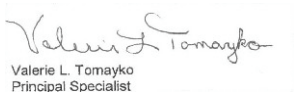
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
1 COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist

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Analysis Report

Sample Description: SL-323-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-323-SA6-SB

LLI Sample # SW 6556463
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/20/2012 10:50

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9501 SDG#: DE295-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	5.2		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 13:38	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-186-SA7-SB-27.0-28.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-186-SA7-SB

LLI Sample # SW 6556464
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:23

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9502 SDG#: DE295-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	17.8	U	17.8	35.6	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	640	U	640	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	6.6		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 14:19	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 17:55	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 14:00	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556465
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9503 SDG#: DE295-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	21.3	U	21.3	42.5	1
	Reporting limits were raised due to limited sample volume.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	970	J	630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	5.5		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 14:39	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 18:05	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 14:23	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556466
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9503 SDG#: DE295-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
HPLC Organics	**SW-846 8315A**		**ug/kg**	**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	6,500	630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	7.8	1.6	3.7	1
10318	o-Terphenyl	84-15-1	7.9	1.6	3.7	1
10318	p-Terphenyl	92-94-4	8.1	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	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
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 18:14	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 14:45	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556467
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9503 SDG#: DE295-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
HPLC Organics	**SW-846 8315A**		**ug/kg**	**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	6,400	630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	7.8	1.6	3.7	1
10318	o-Terphenyl	84-15-1	7.8	1.6	3.7	1
10318	p-Terphenyl	92-94-4	8.0	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11626	28a Moisture Content by 160.3	n.a.	5.4	0.50	0.50	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.					
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	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
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 18:24	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 15:30	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556468
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9503 SDG#: DE295-03RLR

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	3,000		630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	Moisture Content by 160.3	n.a.	5.5		0.50	0.50	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
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 18:43	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 15:53	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556469
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9503 SDG#: DE295-03RLQ

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	2,200		630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.8	J	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.8	J	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.8	J	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	Moisture Content by 160.3	n.a.	5.5		0.50	0.50	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
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 18:53	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 16:16	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-188-SA7-SB-18.5-19.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556470
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 09:00

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
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E9504 SDG#: DE295-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	177	U	177	353	10
	Reporting limits were raised due to interference from the sample matrix.						
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	630	U	630	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	5.9		0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 15:18	Matthew S Woods	10
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 19:02	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 17:46	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: SL-188-SA7-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556471
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 10:32

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9505 SDG#: DE295-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	17.1	U	17.1	34.2	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	1,500	J	610	1,500	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.5	U	1.5	3.6	1
10318	o-Terphenyl	84-15-1	1.5	U	1.5	3.6	1
10318	p-Terphenyl	92-94-4	1.5	U	1.5	3.6	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	3.7		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 15:38	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 19:12	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 16:39	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: DUP10-SA7-QC-022112 Soil
SSFL Area IV Collocated Soil Sampling
DUP10-SA7

LLI Sample # SW 6556472
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:25

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9506 SDG#: DE295-06FD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/kg**		**ng/kg**	**ng/kg**	
11622	N-Nitrosodimethylamine	62-75-9	17.8	U	17.8	35.5	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	20a Formaldehyde 8315A	50-00-0	640	U	640	1,600	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	Moisture Content by 160.3	n.a.	6.7		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above 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
11622	21a NDMA by 1625C	EPA 1625C	1	12061SLE026	03/05/2012 15:57	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	3	12061SLE026	03/02/2012 07:30	Katheryne V Sponheimer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	120590001A	02/29/2012 19:21	James H Place	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	120590001A	02/28/2012 14:45	Wanda F Oswald	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	120590022A	03/05/2012 17:01	Robert Brown	1
10303	Terphenyls soil prep	SW-846 3550B	1	120590022A	02/29/2012 09:00	Olivia Arosemena	1
11624	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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

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Analysis Report

Sample Description: EB-SA7-SB-022212 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB

LLI Sample # WW 6556473
LLI Group # 1291292
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 12:30

Submitted: 02/23/2012 09:15
Reported: 03/07/2012 15:11

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

E9507 SDG#: DE295-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**EPA 1625C**		**ng/l**		**ng/l**	**ng/l**	
10962	N-Nitrosodimethylamine	62-75-9	0.918	J	0.503	1.01	1
HPLC Organics	**SW-846 8315A**		**ug/l**		**ug/l**	**ug/l**	
04144	20b Formaldehyde 8315A	50-00-0	10	U	10	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.082	U	0.082	0.26	1
10319	o-Terphenyl	84-15-1	0.082	U	0.082	0.26	1
10319	p-Terphenyl	92-94-4	0.082	U	0.082	0.26	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
10962	21b NDMA by 1625C	EPA 1625C	1	12059WAB026	03/01/2012 12:43	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	12059WAB026	02/28/2012 11:55	Wanda F Oswald	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	120540011A	02/27/2012 17:40	James H Place	1
01013	Formaldehyde Extraction	SW-846 8315A	1	120540011A	02/24/2012 12:20	Denise L Trimby	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	120590017A	03/05/2012 12:31	Robert Brown	1
10304	Terphenyls water prep	SW-846 3510C	1	120590017A	02/29/2012 06:00	Roman Kuropatkin	1

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Analysis Report

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291292
Reported: 03/07/12 at 03:11 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12059WAB026	Sample number(s): 6556473								
N-Nitrosodimethylamine	0.500 U	0.500	1.00	ng/l	91	90	70-130	1	30
Batch number: 12061SLE026	Sample number(s): 6556464-6556465,6556470-6556472								
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	91	89	70-130	1	30
Batch number: 120540011A	Sample number(s): 6556473								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	96	102	69-130	6	30
Batch number: 120590001A	Sample number(s): 6556464-6556472								
20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	113		80-126		
Batch number: 120590017A	Sample number(s): 6556473								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	61-108	2	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	92	96	75-125	4	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	94	96	63-110	2	20
Batch number: 120590022A	Sample number(s): 6556463-6556472								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	89		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	88		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	88		69-109		
Batch number: 12060162401A	Sample number(s): 6556463-6556464,6556470-6556472								
Moisture Content by 160.3					100		80-120		
Batch number: 12061162401A	Sample number(s): 6556465-6556469								
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
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: 120590001A	Sample number(s): 6556464-6556472 UNSPK: 6556465								
20a Formaldehyde 8315A	104	101	80-120	2	50				
Batch number: 120590022A	Sample number(s): 6556463-6556472 UNSPK: 6556465								

*- 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: 1291292
Reported: 03/07/12 at 03:11 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
m-Terphenyl	91	90	75-125	1	20				
o-Terphenyl	90	89	75-125	0	20				
p-Terphenyl	91	91	75-125	1	20				
Batch number: 12060162401A	Sample number(s): 6556463-6556464,6556470-6556472					BKG: P552765			
Moisture Content by 160.3						10.2	9.9	2	20
Batch number: 12061162401A	Sample number(s): 6556465-6556469					BKG: 6556465			
28a Moisture Content by 160.3						5.5	5.4	3	20
Moisture Content by 160.3						5.5	5.4	3	20
Moisture Content by 160.3						5.5	5.4	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: 21b. NDMA in Water
Batch number: 12059WAB026

	N-Nitrosodimethylamine-d6
6556473	134
Blank	96
LCS	100
LCSD	98
Limits:	50-150

Analysis Name: 21a NDMA by 1625C
Batch number: 12061SLE026

	N-Nitrosodimethylamine-d6
6556464	72
6556465	83
6556470	108
6556471	89
6556472	72
Blank	78
LCS	76
LCSD	78
Limits:	50-150

Analysis Name: 20b Formaldehyde 8315A
Batch number: 120540011A

	Butyraldehyde
6556473	101

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291292
Reported: 03/07/12 at 03:11 PM

Surrogate Quality Control

Blank	104
LCS	98
LCSD	102

Limits: 45-145

Analysis Name: 20a Formaldehyde 8315A
Batch number: 120590001A

Butyraldehyde

6556464	99
6556465	100
6556466	101
6556467	100
6556468	97
6556469	99
6556470	99
6556471	102
6556472	95
Blank	100
LCS	103
MS	101
MSD	100

Limits: 64-126

Analysis Name: 22b Terphenyls by 8015B
Batch number: 120590017A

n-Triacontane-d62

6556473	95
Blank	82
LCS	97
LCSD	100

Limits: 17-138

Analysis Name: 22a Terphenyls by 8015B
Batch number: 120590022A

n-Triacontane-d62

6556463	92
6556464	95
6556465	96
6556466	98
6556467	93
6556468	92
6556469	103
6556470	96
6556471	95
6556472	95
Blank	95
LCS	96
MS	98
MSD	93

Limits: 19-152

*- 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: 1291292
Reported: 03/07/12 at 03:11 PM

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.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Cap# 1291292 Samp6# 65564463-73

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSES	SECONDARY ANALYSES			Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
Samplers Signatures:										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-323-SA6-SB-23.0-24.0	2/20/12	1050	SOIL	NONE	2-4 oz Jar	X			X	
SL-186-SA7-SB-27.0-28.0	2/21/12	1623	SOIL	NONE	1-8 oz Jar	X	X	X	X	
SL-187-SA7-SB-27.5-28.5MS	2/22/12	1009	SOIL	NONE	2-8 oz Jar	X	X	X	X	MS/MSD
SL-188-SA7-SB-18.5-19.5	2/21/12	0900	SOIL	NONE	2-4 oz Jar	X	X	X	X	
SL-188-SA7-SB-22.0-23.0	2/21/12	1032	SOIL	NONE	1-8 oz Jar	X	X	X	X	
DUP10-SA7-QC-022112	2/21/12	1625	SOIL	NONE	1-16 oz Jar	X	X	X	X	
EB-SA7-SB-022212	2/22/12	1230	SOIL	NONE	4-1 L Ambers	X		X	X	
EB-SA7-SB-022212	2/22/12	1230	SOIL	NONE	1-250 mL glass		X			
Relinquished by: (*Signature*)	Date/Time 2/22/2012 / 1630		Received for Laboratory by: (*Signature*) LLI 2/23/12 0915							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9858 7559							

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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

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

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 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:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

March 02, 2012

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 02/23/2012
Group Number: 1291294
SDG: DX158
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-323-SA6-SB-23.0-24.0 Soil	6556491
SL-186-SA7-SB-27.0-28.0 Soil	6556492
SL-187-SA7-SB-27.5-28.5 Soil	6556493
SL-187-SA7-SB-27.5-28.5 MS Soil	6556494
SL-187-SA7-SB-27.5-28.5 MSD Soil	6556495
SL-188-SA7-SB-18.5-19.5 Soil	6556496
SL-188-SA7-SB-22.0-23.0 Soil	6556497
DUP10-SA7-QC-022112 Soil	6556498
EB-SA7-SB-022212 Water	6556499

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

ELECTRONIC COPY TO	CDM Federal Services Program	Attn: Todd Burgesser
ELECTRONIC COPY TO	Data Package Group	

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Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 556-7259

Respectfully Submitted,



Michele J. Smith
Senior Specialist

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Analysis Report

Sample Description: SL-323-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-323-SA6-SB

LLI Sample # SW 6556491
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/20/2012 10:50

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5812 SDG#: DX158-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.2	0.50	0.50	1

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

Sample Description: SL-323-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-323-SA6-SB

LLI Sample # SW 6556491
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/20/2012 10:50

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5812 SDG#: DX158-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0270	JB	0.0207	1.05	1
11031	12378-PeCDD	40321-76-4	0.0434	JB	0.0193	5.25	1
11031	123478-HxCDD	39227-28-6	0.0193	U	0.0193	5.25	1
11031	123678-HxCDD	57653-85-7	0.0459	JB	0.0200	5.25	1
11031	123789-HxCDD	19408-74-3	0.0566	JB	0.0195	5.25	1
11031	1234678-HpCDD	35822-46-9	0.967	JB	0.0210	5.25	1
11031	OCDD	3268-87-9	8.29	JB	0.0171	10.5	1
11031	2378-TCDF	51207-31-9	0.0259	JBQ	0.0164	1.05	1
11031	12378-PeCDF	57117-41-6	0.00904	JBQ	0.00876	5.25	1
11031	23478-PeCDF	57117-31-4	0.0548	JBQ	0.00928	5.25	1
11031	123478-HxCDF	70648-26-9	0.0623	JB	0.0108	5.25	1
11031	123678-HxCDF	57117-44-9	0.0258	JBQ	0.00886	5.25	1
11031	123789-HxCDF	72918-21-9	0.0417	JBQ	0.0131	5.25	1
11031	234678-HxCDF	60851-34-5	0.0600	JBQ	0.0105	5.25	1
11031	1234678-HpCDF	67562-39-4	0.199	JBQ	0.00981	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0747	JBQ	0.0188	5.25	1
11031	OCDF	39001-02-0	0.315	JB	0.0216	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	97	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	116	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
F Interference is present

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

Sample Description: **SL-323-SA6-SB-23.0-24.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-323-SA6-SB

LLI Sample # SW 6556491
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/20/2012 10:50

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5812 SDG#: DX158-12

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

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-323-SA6-SB-23.0-24.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-323-SA6-SB

LLI Sample # SW 6556491
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/20/2012 10:50

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5812 SDG#: DX158-12

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 15:36	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-186-SA7-SB-27.0-28.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-186-SA7-SB

LLI Sample # SW 6556492
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:23

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5813 SDG#: DX158-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

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

Sample Description: SL-186-SA7-SB-27.0-28.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-186-SA7-SB

LLI Sample # SW 6556492
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:23

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5813 SDG#: DX158-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0273 U	0.0273	1.07	1
11031	12378-PeCDD	40321-76-4	0.0230 JBQ	0.0214	5.35	1
11031	123478-HxCDD	39227-28-6	0.0196 JBQ	0.0191	5.35	1
11031	123678-HxCDD	57653-85-7	0.0426 JBQ	0.0198	5.35	1
11031	123789-HxCDD	19408-74-3	0.0199 U	0.0199	5.35	1
11031	1234678-HpCDD	35822-46-9	0.254 JBQ	0.0209	5.35	1
11031	OCDD	3268-87-9	0.537 JB	0.0193	10.7	1
11031	2378-TCDF	51207-31-9	0.0217 JB	0.0206	1.07	1
11031	12378-PeCDF	57117-41-6	0.0374 JBQ	0.0109	5.35	1
11031	23478-PeCDF	57117-31-4	0.0708 JBQ	0.0127	5.35	1
11031	123478-HxCDF	70648-26-9	0.0659 JBQ	0.0146	5.35	1
11031	123678-HxCDF	57117-44-9	0.0405 JB	0.0110	5.35	1
11031	123789-HxCDF	72918-21-9	0.0692 JB	0.0203	5.35	1
11031	234678-HxCDF	60851-34-5	0.0941 JBQ	0.0134	5.35	1
11031	1234678-HpCDF	67562-39-4	0.186 JB	0.00931	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0622 JB	0.0229	5.35	1
11031	OCDF	39001-02-0	0.246 JBQ	0.0308	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	50	29 - 147
13C12-1234678-HpCDF	107	28 - 143
13C12-1234789-HpCDF	49	26 - 138
13C12-OCDF	48	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

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

Sample Description: **SL-186-SA7-SB-27.0-28.0 Soil**
SSFL Area IV Collocated Soil Sampling
SL-186-SA7-SB

LLI Sample # SW 6556492
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:23

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5813 SDG#: DX158-13

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

S *Saturation of detection signal*

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

Sample Description: SL-186-SA7-SB-27.0-28.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-186-SA7-SB

LLI Sample # SW 6556492
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:23

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5813 SDG#: DX158-13

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 16:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556493
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1

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

Sample Description: SL-187-SA7-SB-27.5-28.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556493
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0348 U	0.0348	1.05	1
11031	12378-PeCDD	40321-76-4	0.0401 JBQ	0.0295	5.26	1
11031	123478-HxCDD	39227-28-6	0.0361 JBQ	0.0223	5.26	1
11031	123678-HxCDD	57653-85-7	0.0566 JBQ	0.0235	5.26	1
11031	123789-HxCDD	19408-74-3	0.0568 JBQ	0.0231	5.26	1
11031	1234678-HpCDD	35822-46-9	0.528 JBQ	0.0242	5.26	1
11031	OCDD	3268-87-9	2.56 JB	0.0165	10.5	1
11031	2378-TCDF	51207-31-9	0.0275 U	0.0275	1.05	1
11031	12378-PeCDF	57117-41-6	0.0297 JBQ	0.0134	5.26	1
11031	23478-PeCDF	57117-31-4	0.0671 JBQ	0.0144	5.26	1
11031	123478-HxCDF	70648-26-9	0.0669 JB	0.0162	5.26	1
11031	123678-HxCDF	57117-44-9	0.0375 JB	0.0133	5.26	1
11031	123789-HxCDF	72918-21-9	0.0430 JBQ	0.0229	5.26	1
11031	234678-HxCDF	60851-34-5	0.0590 JBQ	0.0150	5.26	1
11031	1234678-HpCDF	67562-39-4	0.179 JB	0.00931	5.26	1
11031	1234789-HpCDF	55673-89-7	0.0716 JB	0.0195	5.26	1
11031	OCDF	39001-02-0	0.285 JBQ	0.0270	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	112	28 - 143
13C12-1234789-HpCDF	62	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

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

Sample Description: **SL-187-SA7-SB-27.5-28.5 Soil**
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556493
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14BKG

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

S *Saturation of detection signal*

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

Sample Description: SL-187-SA7-SB-27.5-28.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556493
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14BKG

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 17:29	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556494
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1

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

Sample Description: SL-187-SA7-SB-27.5-28.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556494
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.1	B	0.0370	1.06	1
11031	12378-PeCDD	40321-76-4	112	B	0.0413	5.29	1
11031	123478-HxCDD	39227-28-6	104	B	0.0437	5.29	1
11031	123678-HxCDD	57653-85-7	106	B	0.0451	5.29	1
11031	123789-HxCDD	19408-74-3	114	B	0.0435	5.29	1
11031	1234678-HpCDD	35822-46-9	110	B	0.0397	5.29	1
11031	OCDD	3268-87-9	211	B	0.0293	10.6	1
11031	2378-TCDF	51207-31-9	21.3	B	0.0386	1.06	1
11031	12378-PeCDF	57117-41-6	105	B	0.0247	5.29	1
11031	23478-PeCDF	57117-31-4	99.9	B	0.0263	5.29	1
11031	123478-HxCDF	70648-26-9	97.1	B	0.0468	5.29	1
11031	123678-HxCDF	57117-44-9	97.6	B	0.0376	5.29	1
11031	123789-HxCDF	72918-21-9	99.2	B	0.0551	5.29	1
11031	234678-HxCDF	60851-34-5	95.3	B	0.0432	5.29	1
11031	1234678-HpCDF	67562-39-4	93.2	B	0.0290	5.29	1
11031	1234789-HpCDF	55673-89-7	98.4	B	0.0541	5.29	1
11031	OCDF	39001-02-0	197	B	0.0347	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	116	28 - 143
13C12-1234789-HpCDF	67	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
F Interference is present

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

Sample Description: **SL-187-SA7-SB-27.5-28.5 MS Soil**
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556494
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MS

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

S *Saturation of detection signal*

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

Sample Description: **SL-187-SA7-SB-27.5-28.5 MS Soil**
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556494
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MS

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 18:26	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-187-SA7-SB-27.5-28.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556495
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1

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

Sample Description: SL-187-SA7-SB-27.5-28.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556495
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.3	B	0.0348	1.05	1
11031	12378-PeCDD	40321-76-4	112	B	0.0479	5.26	1
11031	123478-HxCDD	39227-28-6	106	B	0.0456	5.26	1
11031	123678-HxCDD	57653-85-7	102	B	0.0456	5.26	1
11031	123789-HxCDD	19408-74-3	111	B	0.0441	5.26	1
11031	1234678-HpCDD	35822-46-9	111	B	0.0440	5.26	1
11031	OCDD	3268-87-9	209	B	0.0347	10.5	1
11031	2378-TCDF	51207-31-9	21.4	B	0.0371	1.05	1
11031	12378-PeCDF	57117-41-6	105	B	0.0272	5.26	1
11031	23478-PeCDF	57117-31-4	100	B	0.0308	5.26	1
11031	123478-HxCDF	70648-26-9	98.1	B	0.0515	5.26	1
11031	123678-HxCDF	57117-44-9	96.4	B	0.0419	5.26	1
11031	123789-HxCDF	72918-21-9	97.4	B	0.0657	5.26	1
11031	234678-HxCDF	60851-34-5	94.4	B	0.0461	5.26	1
11031	1234678-HpCDF	67562-39-4	93.1	B	0.0296	5.26	1
11031	1234789-HpCDF	55673-89-7	96.8	B	0.0588	5.26	1
11031	OCDF	39001-02-0	197	B	0.0421	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	105	28 - 143
13C12-1234789-HpCDF	58	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
F Interference is present

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

Sample Description: **SL-187-SA7-SB-27.5-28.5 MSD Soil**
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556495
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MSD

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

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-187-SA7-SB-27.5-28.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-187-SA7-SB

LLI Sample # SW 6556495
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 10:09

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5814 SDG#: DX158-14MSD

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 19:22	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	3	12061162401A	03/01/2012 08:25	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-188-SA7-SB-18.5-19.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556496
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 09:00

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5815 SDG#: DX158-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.9	0.50	0.50	1

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

Sample Description: SL-188-SA7-SB-18.5-19.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556496
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 09:00

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5815 SDG#: DX158-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0740 JBQ	0.0235	1.05	1
11031	12378-PeCDD	40321-76-4	0.106 JBQ	0.0300	5.23	1
11031	123478-HxCDD	39227-28-6	0.123 JBQ	0.0306	5.23	1
11031	123678-HxCDD	57653-85-7	0.259 JB	0.0319	5.23	1
11031	123789-HxCDD	19408-74-3	0.243 JB	0.0326	5.23	1
11031	1234678-HpCDD	35822-46-9	5.50 B	0.0374	5.23	1
11031	OCDD	3268-87-9	43.6 B	0.0290	10.5	1
11031	2378-TCDF	51207-31-9	0.0236 U	0.0236	1.05	1
11031	12378-PeCDF	57117-41-6	0.178 JB	0.0163	5.23	1
11031	23478-PeCDF	57117-31-4	0.174 JBQ	0.0159	5.23	1
11031	123478-HxCDF	70648-26-9	0.120 JB	0.0222	5.23	1
11031	123678-HxCDF	57117-44-9	0.135 JB	0.0215	5.23	1
11031	123789-HxCDF	72918-21-9	0.0253 U	0.0253	5.23	1
11031	234678-HxCDF	60851-34-5	0.129 JB	0.0208	5.23	1
11031	1234678-HpCDF	67562-39-4	0.675 JBQ	0.0165	5.23	1
11031	1234789-HpCDF	55673-89-7	0.101 JBQ	0.0217	5.23	1
11031	OCDF	39001-02-0	1.20 JB	0.0208	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	73	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
F Interference is present

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

Sample Description: **SL-188-SA7-SB-18.5-19.5 Soil**
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556496
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 09:00

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5815 SDG#: DX158-15

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

S *Saturation of detection signal*

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

Sample Description: SL-188-SA7-SB-18.5-19.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556496
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 09:00

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5815 SDG#: DX158-15

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/28/2012 20:19	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: SL-188-SA7-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556497
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 10:32

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5816 SDG#: DX158-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.7	0.50	0.50	1

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

Sample Description: SL-188-SA7-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556497
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 10:32

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5816 SDG#: DX158-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0591 JBQ	0.0202	1.00	1
11031	12378-PeCDD	40321-76-4	0.146 JB	0.0210	5.00	1
11031	123478-HxCDD	39227-28-6	0.0498 JBQ	0.0195	5.00	1
11031	123678-HxCDD	57653-85-7	0.0776 JBQ	0.0197	5.00	1
11031	123789-HxCDD	19408-74-3	0.0948 JB	0.0197	5.00	1
11031	1234678-HpCDD	35822-46-9	0.371 JB	0.0158	5.00	1
11031	OCDD	3268-87-9	0.683 JB	0.0151	10.0	1
11031	2378-TCDF	51207-31-9	0.0436 JBQ	0.0148	1.00	1
11031	12378-PeCDF	57117-41-6	0.130 JBQ	0.00852	5.00	1
11031	23478-PeCDF	57117-31-4	0.147 JB	0.0102	5.00	1
11031	123478-HxCDF	70648-26-9	0.120 JB	0.0131	5.00	1
11031	123678-HxCDF	57117-44-9	0.0832 JBQ	0.0104	5.00	1
11031	123789-HxCDF	72918-21-9	0.0171 U	0.0171	5.00	1
11031	234678-HxCDF	60851-34-5	0.116 JBQ	0.0123	5.00	1
11031	1234678-HpCDF	67562-39-4	0.207 JB	0.00737	5.00	1
11031	1234789-HpCDF	55673-89-7	0.0825 JB	0.0163	5.00	1
11031	OCDF	39001-02-0	0.262 JB	0.0228	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	112	28 - 143
13C12-1234789-HpCDF	55	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*
F *Interference is present*

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

Sample Description: SL-188-SA7-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556497
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 10:32

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5816 SDG#: DX158-16

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

S *Saturation of detection signal*

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

Sample Description: SL-188-SA7-SB-22.0-23.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-188-SA7-SB

LLI Sample # SW 6556497
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 10:32

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5816 SDG#: DX158-16

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/29/2012 11:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: DUP10-SA7-QC-022112 Soil
SSFL Area IV Collocated Soil Sampling
DUP10-SA7

LLI Sample # SW 6556498
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:25

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5817 SDG#: DX158-17FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

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

Sample Description: DUP10-SA7-QC-022112 Soil
SSFL Area IV Collocated Soil Sampling
DUP10-SA7

LLI Sample # SW 6556498
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:25

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5817 SDG#: DX158-17FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0453 JB	0.0329	1.06	1
11031	12378-PeCDD	40321-76-4	0.201 JBQ	0.0298	5.31	1
11031	123478-HxCDD	39227-28-6	0.0397 JB	0.0237	5.31	1
11031	123678-HxCDD	57653-85-7	0.0839 JB	0.0241	5.31	1
11031	123789-HxCDD	19408-74-3	0.0849 JBQ	0.0233	5.31	1
11031	1234678-HpCDD	35822-46-9	0.402 JBQ	0.0218	5.31	1
11031	OCDD	3268-87-9	0.820 JB	0.0195	10.6	1
11031	2378-TCDF	51207-31-9	0.0411 JBQ	0.0252	1.06	1
11031	12378-PeCDF	57117-41-6	0.161 JB	0.0133	5.31	1
11031	23478-PeCDF	57117-31-4	0.156 JB	0.0150	5.31	1
11031	123478-HxCDF	70648-26-9	0.116 JB	0.0181	5.31	1
11031	123678-HxCDF	57117-44-9	0.0722 JBQ	0.0143	5.31	1
11031	123789-HxCDF	72918-21-9	0.105 JBQ	0.0224	5.31	1
11031	234678-HxCDF	60851-34-5	0.111 JB	0.0161	5.31	1
11031	1234678-HpCDF	67562-39-4	0.218 JB	0.00965	5.31	1
11031	1234789-HpCDF	55673-89-7	0.0928 JB	0.0196	5.31	1
11031	OCDF	39001-02-0	0.275 JB	0.0251	10.6	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	111	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	60	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

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

Sample Description: **DUP10-SA7-QC-022112 Soil**
SSFL Area IV Collocated Soil Sampling
DUP10-SA7

LLI Sample # SW 6556498
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:25

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5817 SDG#: DX158-17FD

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

S *Saturation of detection signal*

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

Sample Description: **DUP10-SA7-QC-022112 Soil**
SSFL Area IV Collocated Soil Sampling
DUP10-SA7

LLI Sample # SW 6556498
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/21/2012 16:25

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5817 SDG#: DX158-17FD

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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055002	02/29/2012 12:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	12055002	02/24/2012 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	12060162401A	02/29/2012 11:11	Stephanie A Sanchez	1

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Analysis Report

Sample Description: EB-SA7-SB-022212 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB

LLI Sample # WW 6556499
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 12:30

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5818 SDG#: DX158-18EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.321	JQ	0.238	2.03	1
10915	12378-PeCDD	40321-76-4	0.232	U	0.232	10.2	1
10915	123478-HxCDD	39227-28-6	0.308	JBQ	0.207	10.2	1
10915	123678-HxCDD	57653-85-7	0.503	JB	0.217	10.2	1
10915	123789-HxCDD	19408-74-3	0.399	JBQ	0.193	10.2	1
10915	1234678-HpCDD	35822-46-9	4.44	JB	0.259	10.2	1
10915	OCDD	3268-87-9	7.79	JB	0.225	20.3	1
10915	2378-TCDF	51207-31-9	0.187	U	0.187	2.03	1
10915	12378-PeCDF	57117-41-6	0.312	JB	0.117	10.2	1
10915	23478-PeCDF	57117-31-4	0.532	JBQ	0.109	10.2	1
10915	123478-HxCDF	70648-26-9	0.607	JB	0.148	10.2	1
10915	123678-HxCDF	57117-44-9	0.589	JB	0.148	10.2	1
10915	123789-HxCDF	72918-21-9	0.334	JBQ	0.143	10.2	1
10915	234678-HxCDF	60851-34-5	0.718	JB	0.131	10.2	1
10915	1234678-HpCDF	67562-39-4	3.52	JB	0.137	10.2	1
10915	1234789-HpCDF	55673-89-7	0.698	JBQ	0.160	10.2	1
10915	OCDF	39001-02-0	2.04	JB	0.234	20.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	67	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	61	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	61	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
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

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

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Analysis Report

Sample Description: **EB-SA7-SB-022212 Water**
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB

LLI Sample # WW 6556499
LLI Group # 1291294
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 02/22/2012 12:30

Submitted: 02/23/2012 09:15
Reported: 03/02/2012 08:14

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

X5818 SDG#: DX158-18EB*

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

S *Saturation of detection signal*

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
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	12055001	02/28/2012 07:49	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	12055001	02/24/2012 07:30	Deborah M Zimmerman	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291294
Reported: 03/02/12 at 08:14 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 MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12060162401A	Sample number(s): 6556491-6556492,6556496-6556498									
Moisture Content by 160.3						100		80-120		
Batch number: 12061162401A	Sample number(s): 6556493-6556495									
Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 12055001	Sample number(s): 6556499									
2378-TCDD	0.246	U	0.246	2.00	pg/l	103		67-158		
12378-PeCDD	0.559	J	0.249	10.0	pg/l	106		70-142		
123478-HxCDD	0.335	J	0.201	10.0	pg/l	100		70-164		
123678-HxCDD	0.646	J	0.211	10.0	pg/l	100		76-134		
123789-HxCDD	0.725	J	0.216	10.0	pg/l	106		64-162		
1234678-HpCDD	4.12	J	0.249	10.0	pg/l	106		70-140		
OCDD	9.54	J	0.227	20.0	pg/l	102		78-144		
2378-TCDF	0.300	J	0.204	2.00	pg/l	92		75-158		
12378-PeCDF	0.227	J	0.121	10.0	pg/l	99		80-134		
23478-PeCDF	0.937	J	0.109	10.0	pg/l	95		68-160		
123478-HxCDF	0.672	J	0.135	10.0	pg/l	94		72-134		
123678-HxCDF	0.559	J	0.137	10.0	pg/l	98		84-130		
123789-HxCDF	0.470	J	0.139	10.0	pg/l	96		78-130		
234678-HxCDF	0.885	J	0.128	10.0	pg/l	92		70-156		
1234678-HpCDF	2.96	J	0.138	10.0	pg/l	92		82-122		
1234789-HpCDF	0.798	J	0.151	10.0	pg/l	95		78-138		
OCDF	2.04	J	0.250	20.0	pg/l	94		63-170		
Batch number: 12055002	Sample number(s): 6556491-6556498									
2378-TCDD	0.0398	J	0.0325	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0491	J	0.0304	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0412	J	0.0185	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0496	J	0.0204	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0827	J	0.0195	5.00	ng/kg	106		64-162		
1234678-HpCDD	0.340	J	0.0196	5.00	ng/kg	103		70-140		
OCDD	0.648	J	0.0167	10.0	ng/kg	99		78-144		
2378-TCDF	0.0329	J	0.0320	1.00	ng/kg	106		75-158		
12378-PeCDF	0.0597	J	0.0140	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0791	J	0.0155	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0922	J	0.0154	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0562	J	0.0129	5.00	ng/kg	92		84-130		
123789-HxCDF	0.0757	J	0.0197	5.00	ng/kg	92		78-130		
234678-HxCDF	0.0761	J	0.0142	5.00	ng/kg	91		70-156		
1234678-HpCDF	0.161	J	0.00940	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0824	J	0.0199	5.00	ng/kg	93		78-138		

*- 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: 1291294
Reported: 03/02/12 at 08:14 AM

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
OCDF	0.231 J	0.0275	10.0	ng/kg	93		63-170		

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: 12060162401A	Sample number(s): 6556491-6556492,6556496-6556498					BKG: P552765			
Moisture Content by 160.3						10.2	9.9	2	20
Batch number: 12061162401A	Sample number(s): 6556493-6556495					BKG: P556465			
Moisture Content by 160.3						5.5	5.4	3	20
Batch number: 12055002	Sample number(s): 6556491-6556498					UNSPK: 6556493			
2378-TCDD	105	106	67-158	1	25				
12378-PeCDD	106	106	70-142	0	25				
123478-HxCDD	98	101	70-164	2	25				
123678-HxCDD	100	97	76-134	3	25				
123789-HxCDD	108	105	64-162	3	25				
1234678-HpCDD	104	105	70-140	1	25				
OCDD	99	98	78-144	1	25				
2378-TCDF	101	102	75-158	1	25				
12378-PeCDF	99	100	80-134	0	25				
23478-PeCDF	94	95	68-160	0	25				
123478-HxCDF	92	93	72-134	1	25				
123678-HxCDF	92	92	84-130	1	25				
123789-HxCDF	94	92	78-130	2	25				
234678-HxCDF	90	90	70-156	1	25				
1234678-HpCDF	88	88	82-122	0	25				
1234789-HpCDF	93	92	78-138	2	25				
OCDF	93	93	63-170	0	25				

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: 10b Dioxin/Furan by EPA 1613B
Batch number: 12055001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6556499	70	74	69	70	73	75
Blank	80	86	85	85	85	88
OPR	65	72	72	71	73	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
6556499	65	61	53	65	67	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: 1291294
Reported: 03/02/12 at 08:14 AM

Surrogate Quality Control

Blank	77	78	69	77	80	80
OPR	73	76	78	64	69	69
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
6556499	69	61	49	75	73
Blank	78	77	62	90	85
OPR	69	75	72	71	72
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 12055002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6556491	83	82	83	97	81	71
6556492	66	64	65	84	67	50
6556493	66	72	69	85	71	57
6556494	72	76	76	90	78	66
6556495	66	70	71	87	73	58
6556496	71	73	77	82	78	74
6556497	72	72	72	90	73	58
6556498	64	70	68	84	71	57
Blank	58	60	59	74	63	51
MS	72	76	76	90	78	66
MSD	66	70	71	87	73	58
OPR	62	60	56	74	63	52
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
6556491	116	68	63	83	89	87
6556492	107	49	48	68	78	77
6556493	112	62	62	73	76	77
6556494	116	67	67	75	83	82
6556495	105	58	56	69	77	78
6556496	89	73	74	68	75	77
6556497	112	55	51	72	79	78
6556498	111	63	60	69	75	75
Blank	103	54	55	66	73	71
MS	116	67	67	75	83	82
MSD	105	58	56	69	77	78
OPR	107	54	55	72	77	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
6556491	88	89	82	84	99
6556492	77	81	76	66	83
6556493	76	89	87	69	88
6556494	80	92	88	73	92
6556495	76	82	76	69	85
6556496	74	80	77	78	79

*- 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.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1291294
Reported: 03/02/12 at 08:14 AM

Surrogate Quality Control

6556497	77	78	75	73	91
6556498	75	86	83	68	84
Blank	70	79	83	52	71
MS	80	92	88	73	92
MSD	76	82	76	69	85
OPR	76	84	87	52	72
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# 1291294 Samp6# 6556491-99

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYSIS	SECONDARY ANALYSIS			Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels $ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C. Samplers Signatures:						*Dioxin/Furan EPA 1613B	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Terphenyls EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers					
SL-323-SA6-SB-23.0-24.0	2/20/12	1050	SOIL	NONE	2-4 oz Jar	X			X	
SL-186-SA7-SB-27.0-28.0	2/21/12	1623	SOIL	NONE	1-8 oz Jar	X	X	X	X	
SL-187-SA7-SB-27.5-28.5MS	2/22/12	1009	SOIL	NONE	2-8 oz Jar	X	X	X	X	MS/MSD
SL-188-SA7-SB-18.5-19.5	2/21/12	0900	SOIL	NONE	2-4 oz Jar	X	X	X	X	
SL-188-SA7-SB-22.0-23.0	2/21/12	1032	SOIL	NONE	1-8 oz Jar	X	X	X	X	
DUP10-SA7-QC-022112	2/21/12	1625	SOIL	NONE	1-16 oz Jar	X	X	X	X	
EB-SA7-SB-022212	2/22/12	1230	SOIL	NONE	4-1 L Ambers	X		X	X	
EB-SA7-SB-022212	2/22/12	1230	SOIL	NONE	1-250 mL glass		X			
Relinquished by: (*Signature*)	Date/Time 2/22/2012 / 1630		Received for Laboratory by: (*Signature*) LLI 2/23/12 0915							Laboratory: Lancaster Laboratories, Inc.
Received by: (*Signature*)	Date/Time		Airbill No.(s) 8767 9858 7559							

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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

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

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.

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Appendix C
Data Usability Assessment Report and Data Validation Reports
(On CD)

Appendix C
Data Usability Assessment Report

The purposes of this data usability and assessment report (DUAR) are to 1) summarize the data validation performed on the data sets for the deep borehole Historic Site Assessment (HSA) Subareas 5A, 5C, 6 and 7 samples collected, and 2) determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the *Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM] 2011) (WP/FSAP), and *Addendum No. 7 to Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV Santa Susana Field Laboratory, Ventura County, California, Deep Borehole Sampling at SNAP Building 4059, KEWB Building 4073, SRE Building 4143, and STIR Building 4028* (CDM Smith 2012).

C.1 Usability Summary

For this data usability assessment, 13 data sets were reviewed. 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, or SDG. The analyses performed are discussed in Section 2 of the deep borehole Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the WP/FSAP (CDM 2011). Deviations were encountered during the field investigation for the deep borehole sampling activities and are discussed in detail in Section 2 of the deep borehole TM.

The validated data for the deep borehole samples are usable as reported, with the exception of one SVOC result. For all the deep borehole sample data, 0.03 percent of the results were rejected. This rejected result does not impact project objectives and goals. Specific details are provided in the validation reports in this Appendix and below in Section C.8.

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 employed 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.

Table C-1 shows all SDGs that include deep borehole samples respectively 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 deep borehole 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 WP/FSAP (CDM 2011) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method and reporting detection limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification of whether these QC requirements were met
- Verification that measurement performance criteria (representativeness and completeness) for the data have been 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 (except for the rejected results) to support their intended use.

C.4 Summary of Field and Laboratory QA Activities

CDM completed deep borehole sampling activities in accordance with the approved WP/FSAP (CDM 2011) and applicable addendums. A total of 15 soil samples were collected and analyzed from 12 soil boring locations in Subareas 5A (two locations), 5C (three locations), 6 (four locations), and 7 (three locations) for the deep borehole sampling locations. Table 2-1 in the deep borehole TM provides a summary of the samples collected and the laboratory analyses requested.

Table C-1 in this report presents the SDGs and validation level for the deep borehole sample data. An index of samples associated with each SDG is presented at the beginning of the data validation reports presented in this appendix. The WP/FSAP

(CDM 2011) defined the procedures to be followed and the data quality requirements for the field sampling events.

C.5 Field Quality QA/QC

The field QC samples were collected at a frequency of one per 20 samples (5 percent) for MS/MSD/duplicates. MS/MSD/duplicate samples were collected by CDM Smith at one deep borehole sample location and analyzed by EMAX and LLI. MS/MSD/duplicate samples met the frequency requirements detailed in the WP/FSAP (CDM 2011).

As discussed in Section 2.7.1, the MS/MSD/duplicate collected was not analyzed for all methods identified in Table 2-1 for eight sample locations. The cyanide, VOCs, 1,4-dioxane and explosives results for the eight samples without an MS/MSD/duplicate were all nondetect except for one sample that had six detected VOC analytes. These VOC analyte results were between the MDL and RL. The precision and accuracy for these methods that were not analyzed could not be evaluated by the MS/MSD/duplicate but LCSs and surrogates were analyzed for all the methods and all results were within control limits. These quality control parameters do indicate acceptable precision and accuracy with controlled laboratory standards.

A review of all cyanide results (both detects and nondetects) analyzed by EMAX (the laboratory that performed the cyanide analysis for the deep borehole samples) for the remaining Phase 1 data was also performed and all LCSs, MS/MSDs and laboratory duplicate results were within control limits. The acceptable recovery of the surrogate compounds from the VOCs, 1,4-dioxane and explosives analyses, and the other acceptable Phase 1 program wide MS/MSDs for cyanide, indicate that there is no significant matrix interference with these analyses. The precision and accuracy evaluation based on MS/MSD/duplicates was not performed for the eight deep borehole samples identified previously, but based on other QC the data is still considered usable for project purposes.

Section 2 in the deep borehole TM identifies the equipment blanks collected. The equipment rinsate blank results are presented in Table C-2.

No field blanks were collected during deep borehole sampling. Deep borehole samples have been associated with the appropriate field blanks previously collected and qualified accordingly if required.

Eight trip blank samples were shipped with the deep borehole samples. The results for these samples are presented in Table C-3. Data qualifications based on blank detections are discussed in Section C.7.3 and in the Appendix C validation reports. Temperature blanks were to be included with each shipment of samples. Based on validation results, all temperature blanks for deep borehole samples met criteria.

The number of field QC samples collected satisfies the minimum requirements for the deep borehole 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 for the deep borehole samples (0.03 percent of all the analytes) was rejected. This rejected result is discussed below and in the validation reports presented in this appendix.

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 WP/FSAP (CDM 2011). 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:

$$\text{RPD} = \text{absolute value } [(C1-C2)/\{(C1+C2)/2)\}] \times 100\%$$

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 WP/FSAP (CDM 2011) 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. Table C-4 shows the field duplicate pairs and RPD results for deep borehole samples. RPD results outside of criteria are highlighted.

The following individual analyte results were qualified as estimated "J/UJ" based on precision criteria for deep borehole samples:

- Fourteen metal analyte results were qualified as estimated based on laboratory precision criteria
- Ten dioxin results, two terphenyl results and three SVOC SIM results were qualified based on field duplicate criteria
- One PCB/PCT result based on second column RPD results

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. Sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

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:

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

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.

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 individual analyte results were qualified as estimated “J/UJ” based on accuracy criteria for deep borehole samples:

- Forty-four metal analyte results, one hexavalent chromium result and one SVOC result were qualified as estimated based on MS percent recovery criteria

- Two SVOC SIM results and eight formaldehyde results were qualified as estimated based on surrogate recovery criteria

The following individual analyte result was rejected "R" based on accuracy criteria for the deep borehole samples:

- One SVOC result (benzoic acid) based on MS

Sample preservation, handling, and holding times are additional measures of accuracy of the data. All sample preservation, holding times and handling criteria were met except for six NDMA results. These results were qualified as estimated “J/UJ.”

Sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Results that have been rejected “R” are not usable.

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 deep borehole samples:

- One hundred and ninety-four dioxin results (76%) and 6 terphenyl results (6.6%) were qualified as non-detect due to blank contamination criteria

The percentage of results qualified as non-detect based on laboratory blank contamination was greater than 5% for all these analyses.

Estimated detection limits (EDLs) for the dioxins are calculated for each sample. The EDLs for this analysis are very low, reported in ng/kg or parts per trillion, resulting in numerous results qualified as estimated "J" values because they are below the RL. Many of these estimated values have been subsequently qualified as nondetect "U" because the compound was detected in related 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 were well below site-related action levels. Therefore, the resulting qualification of associated sample results as not detected or "U" qualified data do not falsely diminish identification of site-related contaminants.

The reported analytes that had blank qualifications greater than 5 percent do not indicate a laboratory blank contamination problem as the overall sample counts for those analytes were low. For example, there were only 90 terphenyl results and out of those six results were qualified due to blank contamination.

Tables C-2 and C-3 provide a summary of chemicals observed in the equipment and trip blank samples. Most of the equipment blanks, field blanks (full results reported in specific subarea TMs in which they were collected) and trip blanks detected compounds were below the RLs but above the MDLs. ASTM 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 ASTM Type II field blanks for all Phase 1 sampling showed one detect of heptachlor, three detects of naphthalene, and one detect of RDX above their respective RL. One field blank had detects above the RLs for four metal analytes and one field blank had detects above the RLs for a variety of VOC analytes. ASTM Type II water field blanks will continue to be reviewed to monitor for detected concentrations of analytes throughout the sampling program. The associated sample results were qualified accordingly during the validation process.

A review of all Phase 1 equipment blanks was also performed. In general, a variety of analytes were detected above their respective RLs. The most frequently detected analytes were naphthalene, NDMA and RDX. Napthalene was detected in 28 percent of the equipment blanks, NDMA in 27 percent of the equipment blanks and RDX in 26 percent of the equipment blanks. Other analytes were detected in the equipment blanks with methylene chloride being detected in eight percent of the equipment

blanks. All other analytes were detected in less than five percent of the equipment blank samples.

Further review of the equipment blanks is being conducted and all Phase 3 equipment blanks collected to-date are being evaluated to determine if these low level detections are consistent indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected. Associated sample results were qualified accordingly during the validation process regarding field blank contamination. No sample results were rejected due to detected concentrations in field blanks or laboratory blanks.

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 WP/FSAP (CDM 2011a) 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 WP/FSAP (CDM 2011) 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 WP/FSAP (CDM 2011) 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. The sample analyses were performed by LLI and EMAX. 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 deep borehole samples:

- Method 1613B (Dioxins)
  - Twenty-six individual analyte results
- Method 300 (Fluoride/Nitrate)
  - Five individual analyte results
- Method 6020 (Metals)
  - Sixteen individual analyte results
- Method 6850 (Perchlorate)
  - One individual analyte result
- Method 7471A (Mercury)
  - One individual analyte result
- Method 8015B (Alcohols)
  - One individual analyte result
- Method 8015B (Terphenyls)
  - Thirteen individual analyte result
- Method 8082 (PCBs/PCTs)
  - One individual analyte result
- Method 8260B (VOCs)
  - Six individual analyte results
- Method 8270C (SVOCs)
  - One individual analyte result
- Method 8270C SIM (SVOCs)
  - Twenty-eight individual analyte results
- Method 8315A (Formaldehyde)
  - Two individual analyte results

As discussed in Section C.7.3, the EDLs for the dioxins are calculated for each sample and are very low resulting in numerous results qualified as estimated "J" values because they are below the RL as indicated above. The qualification of the dioxins results as estimated "J" based on RL criteria does not falsely diminish identification of site-related contaminants.

RLs for the modified methods identified in Table 2-2 of the deep borehole TM are evaluated through the analysis of RL-LCS and RL-MS samples created by LLI. The evaluation of these QC samples is ongoing throughout all subareas and recommendations regarding program-wide sample qualification based on the RL-LCS and RL-MS QC results have not been finalized. Qualification of individual sample results for deep borehole samples, based on the current RL-LCS and RL-MS QC sample results, was not performed.

In general, for the data validated in this report, detection limits for the sample results were low enough to compare to the action levels stated in the WP/FSAP (CDM 2011). The detection limits for this project are lower than "normal" environmental data analyses. Analytical laboratory methods were modified in order to achieve the lowest practicable RL. Current laboratory instrumentation technology cannot achieve all of these low project RLs, and thus some of the RLs were above project criteria. These results are still considered usable for project decisions.

C.8 Review of Selected Validation Reports

CDM 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 WP/FSAP (CDM 2011) 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. $$\%\text{Completeness} = Cx\frac{100}{n}$$

Where:

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

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

Where:

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

The overall completeness goal, as defined in the WP/FSAP (CDM 2011), for these sampling events is 90 percent for each analytical test for all project data.

A total of 15 deep borehole soil samples including the field duplicates were collected and analyzed. As discussed in Section 2.7, all locations were sampled as planned. As discussed in Section 2 of the deep borehole TM, the sampling deviations do not impact completeness objectives for this sampling program. One hundred percent of the sample locations identified in the WP/FSAP Addendums for deep borehole samples were sampled meeting the completeness goal for the number of locations sampled versus number of locations planned to be sampled.

The completeness goal for acceptable data achieved was 99.97 percent of the number of measurements judged to be valid versus the total number of measurements made for all deep borehole samples analyzed. Table C-5, Completeness Calculation Summary, shows a summary of the results that were estimated or rejected.

The following deep borehole sample result was rejected per the following analysis:

- Method 8270C
  - One out of 750 individual SVOC analyte results (0.133 percent)

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met.

Sampling deviations from that described in the WP/FSAP (CDM Smith 2011) are discussed in Section 2 of the 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 WP/FSAP (CDM 2011) met appropriate criteria. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated on which to base project decisions.

C.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 99 percent of the data validated and reported for the deep borehole samples are suitable for their intended use for site characterization. Sample results that were rejected are not suitable for project use. The rejected analyte results do not impact achievement of the overall project objectives. The detection limits reported generally met the expected limits proposed by the analytical laboratory in their contract agreement with CDM.

Sample results that were qualified as estimated are usable for project decisions. Numerous dioxin results were qualified as estimated and/or non-detect due to the low detection limits. This data is considered usable.

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 C-1 Sample Delivery Groups and Validation Levels for Deep Borehole Soil Samples

Sample Delivery Group	Level of Validation Performed	CDM Review
Deep Borehole Samples		
12B130	Level III	
12B137	Level III	
12B145	Level III	Yes
12B146	Level IV	
12B160	Level III	
12B174	Level IV	
12B176	Level III	
12B189	Level IV	Yes
12B201	Level III	
DE293	Level III	
DE294	Level III	
DE295	Level IV	Yes
DX158	Level IV	Yes

Table C-2 - Deep Borehole Samples Equipment Rinsate Blank Results

		Sample Name:	EB-SA5C-SB-021512		EB-SA7-SB-022212	
		Location:	EB-SA5C		EB-SA7	
		Sample Date:	02/15/2012		02/22/2012	
		Sample Type	EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l	1.0	U		
1,1,1-Trichloroethane	8260B	ug/l	1.0	U		
1,1,2,2-Tetrachloroethane	8260B	ug/l	1.0	U		
1,1,2-Trichloroethane	8260B	ug/l	1.0	U		
1,1-Dichloroethane	8260B	ug/l	1.0	U		
1,1-Dichloroethene	8260B	ug/l	1.0	U		
1,1-Dichloropropene	8260B	ug/l	1.0	U		
1,2,3,4,6,7,8-HpCDD	1613B	pg/l	10.8	U	10.2	U
1,2,3,4,6,7,8-HpCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3,4,7,8,9-HpCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3,4,7,8-HxCDD	1613B	pg/l	10.8	U	10.2	U
1,2,3,4,7,8-HxCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3,6,7,8-HxCDD	1613B	pg/l	10.8	U	10.2	U
1,2,3,6,7,8-HxCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3,7,8,9-HxCDD	1613B	pg/l	10.8	U	10.2	U
1,2,3,7,8,9-HxCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3,7,8-PeCDD	1613B	pg/l	10.8	U	10.2	U
1,2,3,7,8-PeCDF	1613B	pg/l	10.8	U	10.2	U
1,2,3-Trichlorobenzene	8260B	ug/l	1.0	U		
1,2,3-Trichloropropane	8260B	ug/l	2.0	U		
1,2,4-Trichlorobenzene	8260B	ug/l	1.0	U		
1,2,4-Trichlorobenzene	8270C	ug/l	10	U	11	U
1,2,4-Trimethylbenzene	8260B	ug/l	1.0	U		
1,2-Dibromo-3-chloropropane	8260B	ug/l	2.0	U		
1,2-Dibromoethane	8260B	ug/l	1.0	U		
1,2-Dichlorobenzene	8260B	ug/l	1.0	U		
1,2-Dichlorobenzene	8270C	ug/l	10	U	11	U
1,2-Dichloroethane	8260B	ug/l	1.0	U		
1,2-Dichloropropane	8260B	ug/l	1.0	U		
1,2-Diphenylhydrazine	8270C	ug/l	10	U	11	U
1,3,5-Trimethylbenzene	8260B	ug/l	1.0	U		
1,3,5-Trinitrobenzene	8330A	ug/l	1.0	U		
1,3-Dichlorobenzene	8260B	ug/l	1.0	U		
1,3-Dichlorobenzene	8270C	ug/l	10	U	11	U
1,3-Dichloropropane	8260B	ug/l	1.0	U		
1,4-Dichlorobenzene	8260B	ug/l	1.0	U		
1,4-Dichlorobenzene	8270C	ug/l	10	U	11	U
1,4-Dioxane	8260B SIM	ug/l	4.0	U		
1-Methylnaphthalene	8270C	ug/l	10	U		
2,2-Dichloropropane	8260B	ug/l	1.0	U		
2,3,4,6,7,8-HxCDF	1613B	pg/l	10.8	U	10.2	U
2,3,4,7,8-PeCDF	1613B	pg/l	10.8	U	10.2	U
2,3,7,8-TCDD	1613B	pg/l	2.17	U	0.321	J
2,3,7,8-TCDF	1613B	pg/l	2.17	U	2.03	U
2,4,5-Trichlorophenol	8270C	ug/l	10	U	11	U
2,4,6-Trichlorophenol	8270C	ug/l	10	U	11	U
2,4,6-Trinitrotoluene	8330A	ug/l	1.0	U		
2,4-Diamino-6-nitrotoluene	8330A	ug/l	2.0	U		
2,4-Dichlorophenol	8270C	ug/l	10	U	11	U
2,4-Dimethylphenol	8270C	ug/l	10	U	11	U
2,4-Dinitrophenol	8270C	ug/l	21	U	21	U
2,4-Dinitrotoluene	8270C	ug/l	10	U	11	U
2,4-Dinitrotoluene	8330A	ug/l	1.0	U		
2,6-Diamino-4-nitrotoluene	8330A	ug/l	2.0	U		
2,6-Dinitrotoluene	8270C	ug/l	10	U	11	U
2,6-Dinitrotoluene	8330A	ug/l	1.0	U		
2-Amino-4,6-Dinitrotoluene	8330A	ug/l	1.0	U		
2-Butanone	8260B	ug/l	10	U		
2-butoxy-Ethanol	8270C	ug/l	10	U	11	U
2-Chloroethyl Vinyl Ether	8260B	ug/l	2.0	U		
2-Chloronaphthalene	8270C	ug/l	10	U	11	U
2-Chlorophenol	8270C	ug/l	10	U	11	U
2-Chlorotoluene	8260B	ug/l	1.0	U		
2-Hexanone	8260B	ug/l	10	U		
2-Methylnaphthalene	8270C	ug/l	10	U		
2-Methylphenol	8270C	ug/l	10	U	11	U
2-Nitroaniline	8270C	ug/l	10	U	11	U
2-Nitrophenol	8270C	ug/l	10	U	11	U
2-Nitrotoluene	8330A	ug/l	1.0	U		
2-phenoxy-Ethanol	8270C	ug/l	10	U	11	U
2-Propanol	8015B	ug/l	1000	U	1000	U
3,3`-Dichlorobenzidine	8270C	ug/l	10	U	11	U
3,5-Dimethylphenol	8270C	ug/l	21	U	21	U
3-Nitroaniline	8270C	ug/l	10	U	11	U
3-Nitrotoluene	8330A	ug/l	1.0	U		
4,6-Dinitro-2-Methylphenol	8270C	ug/l	21	U	21	U
4-Amino-2,6-Dinitrotoluene	8330A	ug/l	1.0	U		
4-Bromophenyl Phenyl Ether	8270C	ug/l	10	U	11	U
4-Chloro-3-Methylphenol	8270C	ug/l	10	U	11	U
4-Chloroaniline	8270C	ug/l	10	U	11	U
4-Chlorophenyl Phenylether	8270C	ug/l	10	U	11	U
4-Chlorotoluene	8260B	ug/l	1.0	U		
4-Methyl-2-Pentanone	8260B	ug/l	10	U		
4-Methylphenol	8270C	ug/l	10	U	11	U
4-Nitroaniline	8270C	ug/l	10	U	11	U
4-Nitrophenol	8270C	ug/l	21	U	21	U
4-Nitrotoluene	8330A	ug/l	1.0	U		

Table C-2 - Deep Borehole Samples Equipment Rinsate Blank Results

		Sample Name:	EB-SA5C-SB-021512		EB-SA7-SB-022212	
		Location:	EB-SA5C		EB-SA7	
		Sample Date:	02/15/2012		02/22/2012	
		Sample Type	EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Acenaphthene	8270C	ug/l	10	U		
Acenaphthylene	8270C	ug/l	10	U		
Acetone	8260B	ug/l	10	U		
Aluminum	6020	mg/l	0.100	U	0.100	U
Aniline	8270C	ug/l	21	U	21	U
Anthracene	8270C	ug/l	10	U		
Antimony	6020	mg/l	0.00100	U	0.00100	U
Aroclor 1016	8082	ug/l	1.0	U	1.0	U
Aroclor 1221	8082	ug/l	1.0	U	1.0	U
Aroclor 1232	8082	ug/l	1.0	U	1.0	U
Aroclor 1242	8082	ug/l	1.0	U	1.0	U
Aroclor 1248	8082	ug/l	1.0	U	1.0	U
Aroclor 1254	8082	ug/l	1.0	U	1.0	U
Aroclor 1260	8082	ug/l	1.0	U	1.0	U
Aroclor 1262	8082	ug/l	1.0	U	1.0	U
Aroclor 1268	8082	ug/l	1.0	U	1.0	U
Aroclor 5432	8082	ug/l	2.0	U	2.0	U
Aroclor 5442	8082	ug/l	2.0	U	2.0	U
Aroclor 5460	8082	ug/l	2.0	U	2.0	U
Arsenic	6020	mg/l	0.00100	U	0.00100	U
Barium	6020	mg/l	0.00100	U	0.00100	U
Benzene	8260B	ug/l	1.0	U		
Benzidine	8270C	ug/l	52	UJ	52	UJ
Benzo(a)anthracene	8270C	ug/l	10	U		
Benzo(a)pyrene	8270C	ug/l	10	U		
Benzo(b)fluoranthene	8270C	ug/l	10	U		
Benzo(g,h,i)perylene	8270C	ug/l	10	U		
Benzo(k)fluoranthene	8270C	ug/l	10	U		
Benzoic Acid	8270C	ug/l	42	U	42	UJ
Benzyl Alcohol	8270C	ug/l	10	U	11	U
Beryllium	6020	mg/l	0.00100	U	0.00100	U
Bis(2-Chloroethoxy) methane	8270C	ug/l	10	U	11	U
Bis(2-Chloroethyl) ether	8270C	ug/l	10	U	11	U
bis(2-Chloroisopropyl) ether	8270C	ug/l	10	U	11	U
Bis(2-Ethylhexyl) phthalate	8270C	ug/l	21	U		
Boron	6020	mg/l	0.0100	U	0.0100	U
Bromobenzene	8260B	ug/l	1.0	U		
Bromochloromethane	8260B	ug/l	1.0	U		
Bromodichloromethane	8260B	ug/l	1.0	U		
Bromoform	8260B	ug/l	1.0	U		
Bromomethane	8260B	ug/l	1.0	U		
Butylbenzylphthalate	8270C	ug/l	10	U		
Cadmium	6020	mg/l	0.00100	U	0.00100	U
Calcium	6020	mg/l	0.100	U	0.100	U
Carbazole	8270C	ug/l	10	U	11	U
Carbon tetrachloride	8260B	ug/l	1.0	U		
Chlorobenzene	8260B	ug/l	1.0	U		
Chloroethane	8260B	ug/l	1.0	U		
Chloroform	8260B	ug/l	1.0	U		
Chloromethane	8260B	ug/l	1.0	U		
Chlorotrifluoroethene	8260B	ug/l	1.0	U		
Chromium	6020	mg/l	0.00100	U	0.00100	U
Chromium VI	7199	ug/l	0.200	U	0.200	U
			0.200	U	0.200	U
Chrysene	8270C	ug/l	10	U		
cis-1,2-Dichloroethene	8260B	ug/l	1.0	U		
cis-1,3-Dichloropropene	8260B	ug/l	1.0	U		
Cobalt	6020	mg/l	0.00100	U	0.00100	U
Copper	6020	mg/l	0.00100	U	0.00100	U
Cyanide	9014	mg/l	0.0100	U		
Dibenzo(a,h)anthracene	8270C	ug/l	10	U		
Dibenzofuran	8270C	ug/l	10	U	11	U
Dibromochloromethane	8260B	ug/l	1.0	U		
Dibromomethane	8260B	ug/l	1.0	U		
Dichlorodifluoromethane	8260B	ug/l	1.0	U		
Diethylene Glycol	8015M	mg/l	10	U	10	U
Diethylphthalate	8270C	ug/l	10	U		
Dimethylphthalate	8270C	ug/l	10	U		
Di-n-Butylphthalate	8270C	ug/l	10	U		
Di-N-Octyl Phthalate	8270C	ug/l	10	U		
EFH (C12-C14)	8015B EFH	mg/l	0.51	U	0.56	U
EFH (C15-C20)	8015B EFH	mg/l	0.51	U	0.56	U
EFH (C21-C30)	8015B EFH	mg/l	0.51	U	0.56	U
EFH (C30-C40)	8015B EFH	mg/l	0.51	U	0.56	U
EFH (C8-C11)	8015B EFH	mg/l	0.51	U	0.56	U
Ethanol	8015B	ug/l	1000	U	1000	U
Ethylbenzene	8260B	ug/l	1.0	U		
Ethylene Glycol	8015M	mg/l	10	U	10	U
Fluoranthene	8270C	ug/l	10	U		
Fluorene	8270C	ug/l	10	U		
Fluoride	300.0	mg/l	0.100	U	0.100	U
Formaldehyde	8315A	ug/l	10	J	50	U
Freon 113	8260B	ug/l	1.0	U		
Freon 113a	8260B	ug/l	1.0	U		
GRO (C5-C12)	8015B GRO	ug/l	15	J	50	U
Hexachlorobenzene	8270C	ug/l	10	U	11	U
Hexachlorobutadiene	8260B	ug/l	1.0	U		

Table C-2 - Deep Borehole Samples Equipment Rinsate Blank Results

		Sample Name:	EB-SA5C-SB-021512		EB-SA7-SB-022212	
		Location:	EB-SA5C		EB-SA7	
		Sample Date:	02/15/2012		02/22/2012	
		Sample Type	EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Hexachlorobutadiene	8270C	ug/l	10	U	11	U
Hexachlorocyclopentadiene	8270C	ug/l	21	U	21	U
Hexachloroethane	8270C	ug/l	10	U	11	U
HMX	8330A	ug/l	1.0	U		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/l	10	U		
Iron	6020	mg/l	0.100	U	0.100	U
Isophorone	8270C	ug/l	10	U	11	U
Isopropylbenzene	8260B	ug/l	1.0	U		
Isopropyltoluene	8260B	ug/l	1.0	U		
Lead	6020	mg/l	0.00100	U	0.00100	U
Lithium	6020	mg/l	0.00200	U	0.00200	U
m,p-Xylene	8260B	ug/l	2.0	U		
Magnesium	6020	mg/l	0.100	U	0.100	U
Manganese	6020	mg/l	0.00100	U	0.00100	U
m-Dinitrobenzene	8330A	ug/l	1.0	U		
Mercury	7470A	mg/l	0.000500	U	0.000500	U
Methanol	8015B	ug/l	1000	U	1000	U
Methyl tert-Butyl Ether	8260B	ug/l	1.0	U		
Methylene chloride	8260B	ug/l	1.0	U		
Molybdenum	6020	mg/l	0.00200	U	0.00200	U
m-Terphenyl	8015B	mg/l	0.25	U	0.26	U
Naphthalene	8270C	ug/l	10	U		
N-Butylbenzene	8260B	ug/l	1.0	U		
Nickel	6020	mg/l	0.00100	U	0.00100	U
Nitrate	300.0	mg/l	0.443	U	0.443	U
Nitrobenzene	8270C	ug/l	10	U	11	U
Nitrobenzene	8330A	ug/l	1.0	U		
Nitroglycerin	8332	ug/l	250	U		
N-Nitrosodimethylamine	1625C	ng/l	1.02	U	0.918	J
N-Nitroso-Di-N-Propylamine	8270C	ug/l	10	U	11	U
N-Nitrosodiphenylamine	8270C	ug/l	10	U	11	U
N-Propylbenzene	8260B	ug/l	1.0	U		
OCDD	1613B	pg/l	21.7	U	20.3	U
OCDF	1613B	pg/l	21.7	U	20.3	U
o-Terphenyl	8015B	mg/l	0.25	U	0.26	U
o-Xylene	8260B	ug/l	1.0	U		
Pentachlorophenol	8270C	ug/l	21	U	21	U
Perchlorate	314.0	ug/l	2.00	U	2.00	U
PETN	8332	ug/l	250	U		
pH	9040C	pH unit	5.69		5.55	
Phenanthrene	8270C	ug/l	10	U		
Phenol	8270C	ug/l	10	U	11	U
Phosphorus	6020	mg/l	0.0500	U	0.0500	U
Potassium	6020	mg/l	0.100	U	0.100	U
Propylene glycol	8015M	mg/l	10	U	10	U
p-Terphenyl	8015B	mg/l	0.25	U	0.26	U
Pyrene	8270C	ug/l	10	U		
RDX	8330A	ug/l	1.0	U		
sec-Butylbenzene	8260B	ug/l	1.0	U		
Selenium	6020	mg/l	0.00100	U	0.00100	U
Silver	6020	mg/l	0.00100	U	0.00100	U
Sodium	6020	mg/l	0.100	U	0.100	U
Strontium	6020	mg/l	0.00200	U	0.00200	U
Styrene	8260B	ug/l	1.0	U		
tert-Butylbenzene	8260B	ug/l	1.0	U		
Tetrachloroethene	8260B	ug/l	1.0	U		
Tetralin	8270C	ug/l	10	U	11	U
Tetryl	8330A	ug/l	1.0	U		
Thallium	6020	mg/l	0.00100	U	0.00100	U
Tin	6020	mg/l	0.00100	U	0.00100	U
Titanium	6020	mg/l	0.00200	U	0.00200	U
Toluene	8260B	ug/l	1.0	U		
trans-1,2-Dichloroethene	8260B	ug/l	1.0	U		
trans-1,3-Dichloropropene	8260B	ug/l	1.0	U		
Trichloroethene	8260B	ug/l	1.0	U		
Trichlorofluoromethane	8260B	ug/l	1.0	U		
Vanadium	6020	mg/l	0.00100	U	0.00100	U
Vinyl Chloride	8260B	ug/l	1.0	U		
Zinc	6020	mg/l	0.0200	U	0.0200	U
Zirconium	6020	mg/l	0.00500	U	0.00500	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

(a) Some SVOC results had two values - one for SVOC and one for SVOC SIM. The validators used the value with the lowest detection limit for validation purposes

Table C-3 - Deep Borehole Samples Trip Blank Results

		Sample Name:	TB-021312		TB-021412		TB-021512		TB-021612		TB-021712		TB-022012		TB-022112		TB-022212	
		Sample Date:	02/13/2012		02/14/2012		02/15/2012		02/16/2012		02/17/2012		02/20/2012		02/21/2012		02/22/2012	
		Sample Type	TB		TB		TB		TB		TB		TB		TB		TB	
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
1,1,1,2-Tetrachloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1,1-Trichloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1,2,2-Tetrachloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1,2-Trichloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1-Dichloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1-Dichloroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,1-Dichloropropene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2,3-Trichlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2,3-Trichloropropane	8260B	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U						
1,2,4-Trichlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2,4-Trimethylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2-Dibromo-3-chloropropane	8260B	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U						
1,2-Dibromoethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2-Dichlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2-Dichloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,2-Dichloropropane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,3,5-Trimethylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,3-Dichlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,3-Dichloropropane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,4-Dichlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
1,4-Dioxane	8260B SIM	ug/l	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U						
2,2-Dichloropropane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
2-Butanone	8260B	ug/l	10	U	10	U	10	U	10	U	10	U						
2-Chloroethyl Vinyl Ether	8260B	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U						
2-Chlorotoluene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
2-Hexanone	8260B	ug/l	10	U	10	U	10	U	10	U	10	U						
4-Chlorotoluene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
4-Methyl-2-Pentanone	8260B	ug/l	10	U	10	U	10	U	10	U	10	U						
Acetone	8260B	ug/l	10	U	10	U	10	U	10	U	10	U						
Benzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Bromobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Bromochloromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Bromodichloromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Bromoform	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Bromomethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Carbon tetrachloride	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Chlorobenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Chloroethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Chloroform	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Chloromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Chlorotrifluoroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
cis-1,2-Dichloroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
cis-1,3-Dichloropropene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Dibromochloromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Dibromomethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Dichlorodifluoromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Ethylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Freon 113	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Freon 113a	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
GRO (C5-C12)	8015B GRO	ug/l	30	J	18	J	31	J	31	J	41	J	49	J	50	U	23	J
Hexachlorobutadiene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Isopropylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Isopropyltoluene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
m,p-Xylene	8260B	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U						
Methyl tert-Butyl Ether	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Methylene chloride	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
N-Butylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
N-Propylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
o-Xylene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
sec-Butylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Styrene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
tert-Butylbenzene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Tetrachloroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Toluene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
trans-1,2-Dichloroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
trans-1,3-Dichloropropene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Trichloroethene	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Trichlorofluoromethane	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
Vinyl Chloride	8260B	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Deep Borehole Samples Field Duplicate Results

				Location	SL-186-SA7		SL-186-SA7		RPD
				Sample Name:	DUP10-SA7-QC-022112		SL-186-SA7-SB-27.0-28.0		
				Sample Date	02/21/2012		02/21/2012		
				Start Depth:	27		27		
				End Depth:	28		28		
				Area:	DeepBoring		DeepBoring		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Inorganic	Nitrate	14797-55-8	300.0	mg/kg	1.55	J	1.41	J	9.46
Inorganic	Fluoride	16984-48-8	300.0	mg/kg	4.58		4.33		5.61
Inorganic	Aluminum	7429-90-5	6020	mg/kg	8010	J	8510	J	6.05
Inorganic	Iron	7439-89-6	6020	mg/kg	15800		17500		10.21
Inorganic	Lead	7439-92-1	6020	mg/kg	3.20	J	3.44	J	7.23
Inorganic	Lithium	7439-93-2	6020	mg/kg	18.1		20.2		10.97
Inorganic	Magnesium	7439-95-4	6020	mg/kg	3120		3410		8.88
Inorganic	Manganese	7439-96-5	6020	mg/kg	213		224		5.03
Inorganic	Mercury	7439-97-6	7471A	mg/kg	0.107	U	0.108	U	--
Inorganic	Molybdenum	7439-98-7	6020	mg/kg	0.733		0.770		4.92
Inorganic	Nickel	7440-02-0	6020	mg/kg	6.58		6.66		1.21
Inorganic	Potassium	7440-09-7	6020	mg/kg	2450		2670		8.59
Inorganic	Silver	7440-22-4	6020	mg/kg	0.0996	U	0.106	U	--
Inorganic	Sodium	7440-23-5	6020	mg/kg	254		250		1.59
Inorganic	Strontium	7440-24-6	6020	mg/kg	9.04		9.75		7.56
Inorganic	Thallium	7440-28-0	6020	mg/kg	0.282		0.306		8.16
Inorganic	Tin	7440-31-5	6020	mg/kg	9.96	U	10.6	U	--
Inorganic	Titanium	7440-32-6	6020	mg/kg	826		905		9.13
Inorganic	Antimony	7440-36-0	6020	mg/kg	0.110	J	0.116	J	5.31
Inorganic	Arsenic	7440-38-2	6020	mg/kg	3.86		3.95		2.30
Inorganic	Beryllium	7440-41-7	6020	mg/kg	0.364		0.398		8.92
Inorganic	Barium	7440-39-3	6020	mg/kg	57.9	J	63.3	J	8.91
Inorganic	Boron	7440-42-8	6020	mg/kg	4.98	UJ	5.28	UJ	--
Inorganic	Cadmium	7440-43-9	6020	mg/kg	0.0820	J	0.0935	J	13.11
Inorganic	Chromium	7440-47-3	6020	mg/kg	11.4		11.3		0.88
Inorganic	Cobalt	7440-48-4	6020	mg/kg	3.02		3.27		7.95
Inorganic	Copper	7440-50-8	6020	mg/kg	4.63		4.73		2.14
Inorganic	Vanadium	7440-62-2	6020	mg/kg	21.1	J	22.3	J	5.53
Inorganic	Zinc	7440-66-6	6020	mg/kg	47.1		52.2		10.27
Inorganic	Zirconium	7440-67-7	6020	mg/kg	4.98	U	5.28	U	--
Inorganic	Calcium	7440-70-2	6020	mg/kg	1890	J	2060	J	8.61
Inorganic	Phosphorus	7723-14-0	6020	mg/kg	323		363		11.66
Inorganic	Selenium	7782-49-2	6020	mg/kg	0.398	U	0.422	U	--
Inorganic	Chromium VI	18540-29-9	7199	mg/kg	1.09	U	1.08	U	--
Inorganic	Perchlorate	14797-73-0	314.0	ug/kg	21.7	U	21.6	U	--
Inorganic	Perchlorate	14797-73-0	6850	ug/kg	5.43	U			--
Inorganic	Percent Moisture	MOIST	160.3M	%	6.7		6.6		1.50
Inorganic	pH	pH	9045D	pH unit	8.14		8.11		0.37
Misc. Organics	Ethanol	64-17-5	8015B	ug/kg	540	U	540	U	--
Misc. Organics	Methanol	67-56-1	8015B	ug/kg	540	U	540	U	--
Misc. Organics	2-Propanol	67-63-0	8015B	ug/kg	540	U	540	U	--
Misc. Organics	Ethylene Glycol	107-21-1	8015M	mg/kg	11	U	11	U	--
Misc. Organics	Diethylene Glycol	111-46-6	8015M	mg/kg	16	U	16	U	--
Misc. Organics	Propylene glycol	57-55-6	8015M	mg/kg	11	U	11	U	--
Misc. Organics	o-Terphenyl	84-15-1	8015B	mg/kg	3.7	U	3.7	U	--
Misc. Organics	m-Terphenyl	92-06-8	8015B	mg/kg	3.7	U	3.7	U	--
Misc. Organics	p-Terphenyl	92-94-4	8015B	mg/kg	3.7	U	3.7	U	--
Misc. Organics	Formaldehyde	50-00-0	8315A	ug/kg	1600	U	1600	U	--
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.06	UJ	1.07	UJ	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	OCDD	3268-87-9	1613B	ng/kg	10.6	U	10.7	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	1613B	ng/kg	5.31	U	5.35	U	--
PCBs and Dioxins	OCDF	39001-02-0	1613B	ng/kg	10.6	U	10.7	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	1613B	ng/kg	1.06	UJ	1.07	UJ	--
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1613B	ng/kg	5.31	U	5.35	U	--
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1613B	ng/kg	5.31	U	5.35	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1613B	ng/kg	5.31	U	5.35	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1613B	ng/kg	5.31	UJ	5.35	UJ	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	1613B	ng/kg	5.31	U	5.35	U	--
PCBs and Dioxins	Aroclor 1260	11096-82-5	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1254	11097-69-1	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1268	11100-14-4	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1221	11104-28-2	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 5460	11126-42-4	8082	ug/kg	26	U	25	U	--
PCBs and Dioxins	Aroclor 1232	11141-16-5	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 5442	12642-23-8	8082	ug/kg	26	U	25	U	--
PCBs and Dioxins	Aroclor 1248	12672-29-6	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1016	12674-11-2	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1262	37324-23-5	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 1242	53469-21-9	8082	ug/kg	13	U	13	U	--
PCBs and Dioxins	Aroclor 5432	63496-31-1	8082	ug/kg	26	U	25	U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	1625C	ng/kg	35.5	U	35.6	U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	2,4-Dinitrotoluene	121-14-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Nitrobenzene	98-95-3	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1,4-Dichlorobenzene	106-46-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1,3-Dichlorobenzene	541-73-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Hexachlorobutadiene	87-68-3	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1,2-Dichlorobenzene	95-50-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	4-Nitroaniline	100-01-6	8270C	ug/kg	180	U	180	U	--
Semivolatiles	4-Nitrophenol	100-02-7	8270C	ug/kg	360	U	360	U	--
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2,4-Dimethylphenol	105-67-9	8270C	ug/kg	180	U	180	U	--
Semivolatiles	4-Methylphenol	106-44-5	8270C	ug/kg	180	U	180	U	--
Semivolatiles	4-Chloroaniline	106-47-8	8270C	ug/kg	180	U	180	U	--
Semivolatiles	3,5-Dimethylphenol	108-68-9	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Phenol	108-95-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C SIM	ug/kg	18	UJ	11	J	200.00
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C SIM	ug/kg	18	U	18	U	--
Semivolatiles	Hexachlorobenzene	118-74-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Anthracene	120-12-7	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	2,4-Dichlorophenol	120-83-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Pyrene	129-00-0	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Dimethylphthalate	131-11-3	8270C SIM	ug/kg	18	U	18	U	--
Semivolatiles	Dibenzofuran	132-64-9	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg	1.8	UJ	0.94	J	200.00
Semivolatiles	Fluoranthene	206-44-0	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg	1.8	UJ	1.0	J	200.00
Semivolatiles	Acenaphthylene	208-96-8	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Chrysene	218-01-9	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	2,4-Dinitrophenol	51-28-5	8270C	ug/kg	360	U	360	U	--
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	8270C	ug/kg	360	U	360	U	--
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	4-Chloro-3-Methylphenol	59-50-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	N-Nitroso-Di-N-Propylamine	621-64-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Aniline	62-53-3	8270C	ug/kg	360	U	360	U	--
Semivolatiles	Benzoic Acid	65-85-0	8270C	ug/kg	720	U	720	U	--
Semivolatiles	Hexachloroethane	67-72-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	4-Chlorophenyl Phenylether	7005-72-3	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Isophorone	78-59-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Acenaphthene	83-32-9	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Diethylphthalate	84-66-2	8270C SIM	ug/kg	18	U	18	U	--
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C SIM	ug/kg	18	U	18	U	--
Semivolatiles	Phenanthrene	85-01-8	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C SIM	ug/kg	18	U	18	U	--
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Fluorene	86-73-7	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Carbazole	86-74-8	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Pentachlorophenol	87-86-5	8270C	ug/kg	360	U	360	U	--
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg	180	U	180	U	--

Table C-4 - Deep Borehole Samples Field Duplicate Results

				Location	SL-186-SA7		SL-186-SA7		RPD
				Sample Name:	DUP10-SA7-QC-022112		SL-186-SA7-SB-27.0-28.0		
				Sample Date	02/21/2012		02/21/2012		
				Start Depth:	27		27		
				End Depth:	28		28		
				Area:	DeepBoring		DeepBoring		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Semivolatiles	2-Nitroaniline	88-74-4	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2-Nitrophenol	88-75-5	8270C	ug/kg	180	U	180	U	--
Semivolatiles	1-Methylnaphthalene	90-12-0	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	Naphthalene	91-20-3	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg	1.8	U	1.8	U	--
Semivolatiles	2-Chloronaphthalene	91-58-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Benzidine	92-87-5	8270C	ug/kg	900	U	900	U	--
Semivolatiles	2-Methylphenol	95-48-7	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2-Chlorophenol	95-57-8	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg	180	U	180	U	--
Semivolatiles	3-Nitroaniline	99-09-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Benzyl Alcohol	100-51-6	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2,6-Dinitrotoluene	606-20-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2-butoxy-Ethanol	111-76-2	8270C	ug/kg	180	U	180	U	--
Semivolatiles	2-phenoxy-Ethanol	122-99-6	8270C	ug/kg	180	U	180	U	--
Semivolatiles	Tetralin	119-64-2	8270C	ug/kg	180	U	180	U	--
Volatiles	GRO (C5-C12)	GROC5C12	8015B GRO	mg/kg	0.98	U			--
Volatiles	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	1.1	U	1.1	U	--
Volatiles	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	1.1	U	1.1	U	--
Volatiles	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	0.65	J	1.1	UJ	200.00
Volatiles	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	1.1	U	1.1	U	--
Volatiles	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	0.56	J	0.65	J	14.88

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 C-5 Summary of Data Completeness Following Data Validation – Deep Borehole Soil Samples

	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	17	26		202	10	255	100
NDMA				6	6	12	100
Fluoride, Nitrate	17	5		17		39	100
Perchlorate-314	1			14		15	100
Metals - 6020	322	53		69	6	450	100
Perchlorate - 6850		1		1		2	100
Hexavalent Chromium				14	1	15	100
Mercury		1		14		15	100
Alcohols		1		44		45	100
Terphenyls				45		45	100
Total Petroleum Hydrocarbons – Extractable Fuel Hydrocarbons	37	13		39	1	90	100
Total Petroleum Hydrocarbons – Gasoline Range Organics	2			13		15	100
Total Petroleum Hydrocarbons - Glycols				45		45	100
PCBs/PCTs	5	2		173		180	100
Volatiles		6		530		536	100
Volatiles SIM				8		8	100
Semivolatiles	1	1	1	747		750	99.86
Semivolatiles SIM	13	29		333		375	100
Formaldehyde	1	5		2	4	12	100
Energetics				144		144	100
Cyanide				8		8	100
Completeness Total for All Deep Borehole Samples Collected and Judged Valid							**99.97**

Appendix C. Samples by SDG EQuIS for Deep Boring

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
DeepBoring	SL-146-SA5C-SB-47.5-48.5	12B130	SO	2/13/2012	FIELD
DeepBoring	SL-146-SA5C-SB-48.0	12B130	SO	2/13/2012	FIELD
	TB-021312	12B130	AQ	2/13/2012	FIELD
DeepBoring	SL-148-SA5C-SB-40.0-41.0	12B137	SO	2/14/2012	FIELD
DeepBoring	SL-148-SA5C-SB-40.5	12B137	SO	2/14/2012	FIELD
	TB-021412	12B137	AQ	2/14/2012	FIELD
DeepBoring	EB-SA5C-SB-021512	12B145	WQ	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-40.0-41.0	12B146	SO	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-40.5	12B146	SO	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-55.0-56.0	12B146	SO	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-55.5	12B146	SO	2/15/2012	FIELD
DeepBoring	SL-261-SA5A-SB-8.5-9.5	12B146	SO	2/15/2012	FIELD
DeepBoring	SL-261-SA5A-SB-9.0	12B146	SO	2/15/2012	FIELD
	TB-021512	12B146	AQ	2/15/2012	FIELD
DeepBoring	SL-260-SA5A-SB-5.5-6.5	12B160	SO	2/16/2012	FIELD
DeepBoring	SL-260-SA5A-SB-6.0	12B160	SO	2/16/2012	FIELD
DeepBoring	SL-324-SA6-SB-25.0-26.0	12B160	SO	2/16/2012	FIELD
DeepBoring	SL-324-SA6-SB-25.5	12B160	SO	2/16/2012	FIELD
	TB-021612	12B160	AQ	2/16/2012	FIELD
DeepBoring	SL-325-SA6-SB-22.0	12B174	SO	2/17/2012	FIELD
DeepBoring	SL-325-SA6-SB-22.5-23.5	12B174	SO	2/17/2012	FIELD
DeepBoring	SL-325-SA6-SB-26.0-27.0	12B174	SO	2/17/2012	FIELD
DeepBoring	SL-325-SA6-SB-26.5	12B174	SO	2/17/2012	FIELD
DeepBoring	SL-326-SA6-SB-23.0-24.0	12B174	SO	2/17/2012	FIELD
DeepBoring	SL-326-SA6-SB-23.5	12B174	SO	2/16/2012	FIELD
	TB-021712	12B174	AQ	2/17/2012	FIELD
DeepBoring	SL-325-SA6-SB-22.5-23.5	12B174SV	SO	2/17/2012	FIELD
DeepBoring	SL-323-SA6-SB-23.0-24.0	12B176	SO	2/20/2012	FIELD
DeepBoring	SL-323-SA6-SB-23.5	12B176	SO	2/20/2012	FIELD
	TB-022012	12B176	AQ	2/20/2012	FIELD
DeepBoring	DUP10-SA7-QC-022112	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-186-SA7-SB-27.0-28.0	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-186-SA7-SB-27.5	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-18.5-19.5	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-19.0	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-22.0-23.0	12B189	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-22.5	12B189	SO	2/21/2012	FIELD
	TB-022112	12B189	AQ	2/21/2012	FIELD
DeepBoring	EB-SA7-SB-022212	12B201	WQ	2/22/2012	FIELD
DeepBoring	SL-187-SA7-SB-27.5-28.5	12B201	SO	2/22/2012	FIELD
DeepBoring	SL-187-SA7-SB-28.0	12B201	SO	2/22/2012	FIELD
	TB-022212	12B201	AQ	2/22/2012	FIELD
DeepBoring	EB-SA5C-SB-021512	DE293	WQ	2/15/2012	FIELD
DeepBoring	SL-146-SA5C-SB-47.5-48.5	DE293	SO	2/13/2012	FIELD
DeepBoring	SL-147-SA5C-SB-40.0-41.0	DE293	SO	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-55.0-56.0	DE293	SO	2/15/2012	FIELD
DeepBoring	SL-148-SA5C-SB-40.0-41.0	DE293	SO	2/14/2012	FIELD
DeepBoring	SL-260-SA5A-SB-5.5-6.5	DE294	SO	2/16/2012	FIELD
DeepBoring	SL-261-SA5A-SB-8.5-9.5	DE294	SO	2/15/2012	FIELD
DeepBoring	SL-324-SA6-SB-25.0-26.0	DE294	SO	2/16/2012	FIELD
DeepBoring	SL-325-SA6-SB-22.5-23.5	DE294	SO	2/17/2012	FIELD

Appendix C. Samples by SDG EQuIS for Deep Boring

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
DeepBoring	SL-325-SA6-SB-26.0-27.0	DE294	SO	2/17/2012	FIELD
DeepBoring	SL-326-SA6-SB-23.0-24.0	DE294	SO	2/17/2012	FIELD
DeepBoring	DUP10-SA7-QC-022112	DE295	SO	2/21/2012	FIELD
DeepBoring	EB-SA7-SB-022212	DE295	WQ	2/22/2012	FIELD
DeepBoring	SL-186-SA7-SB-27.0-28.0	DE295	SO	2/21/2012	FIELD
DeepBoring	SL-187-SA7-SB-27.5-28.5	DE295	SO	2/22/2012	FIELD
DeepBoring	SL-188-SA7-SB-18.5-19.5	DE295	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-22.0-23.0	DE295	SO	2/21/2012	FIELD
DeepBoring	SL-323-SA6-SB-23.0-24.0	DE295	SO	2/20/2012	FIELD
DeepBoring	DUP10-SA7-QC-022112	DX158	SO	2/21/2012	FIELD
DeepBoring	EB-SA5C-SB-021512	DX158	WQ	2/15/2012	FIELD
DeepBoring	EB-SA7-SB-022212	DX158	WQ	2/22/2012	FIELD
DeepBoring	SL-146-SA5C-SB-47.5-48.5	DX158	SO	2/13/2012	FIELD
DeepBoring	SL-147-SA5C-SB-40.0-41.0	DX158	SO	2/15/2012	FIELD
DeepBoring	SL-147-SA5C-SB-55.0-56.0	DX158	SO	2/15/2012	FIELD
DeepBoring	SL-148-SA5C-SB-40.0-41.0	DX158	SO	2/14/2012	FIELD
DeepBoring	SL-186-SA7-SB-27.0-28.0	DX158	SO	2/21/2012	FIELD
DeepBoring	SL-187-SA7-SB-27.5-28.5	DX158	SO	2/22/2012	FIELD
DeepBoring	SL-188-SA7-SB-18.5-19.5	DX158	SO	2/21/2012	FIELD
DeepBoring	SL-188-SA7-SB-22.0-23.0	DX158	SO	2/21/2012	FIELD
DeepBoring	SL-260-SA5A-SB-5.5-6.5	DX158	SO	2/16/2012	FIELD
DeepBoring	SL-261-SA5A-SB-8.5-9.5	DX158	SO	2/15/2012	FIELD
DeepBoring	SL-323-SA6-SB-23.0-24.0	DX158	SO	2/20/2012	FIELD
DeepBoring	SL-324-SA6-SB-25.0-26.0	DX158	SO	2/16/2012	FIELD
DeepBoring	SL-325-SA6-SB-22.5-23.5	DX158	SO	2/17/2012	FIELD
DeepBoring	SL-325-SA6-SB-26.0-27.0	DX158	SO	2/17/2012	FIELD
DeepBoring	SL-326-SA6-SB-23.0-24.0	DX158	SO	2/17/2012	FIELD

SAMPLE DELIVERY GROUP

12B130

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
13-Feb-2012	TB-021312	B130-03	TB	5030B	8260B	III
13-Feb-2012	TB-021312	B130-03	TB	5030B	8260B SIM	III
13-Feb-2012	TB-021312	B130-03R	TB	5030B	8015B GRO	III
13-Feb-2012	SL-146-SA5C-SB-48.0	B130-01	N	5035	8015B GRO	III
13-Feb-2012	SL-146-SA5C-SB-48.0	B130-01	N	5035	8260B	III
13-Feb-2012	SL-146-SA5C-SB-48.0	B130-01	N	5035	8260B SIM	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	3550B	8082	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	3550B	8270C	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	3550B	8270C SIM	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	7471A	7471A	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	300.0	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	314.0	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	6020	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	6850	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	7199	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	8015B	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	8015M	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	8330A	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	8332	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	9014	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02	N	GEN PREP	9045D	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5M	B130-02M	MS	GEN PREP	6020	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02R	N	3550B	8015B EFH	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	B130-02R	N	GEN PREP	7199	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: 12B130 **Laboratory: EMXT**

EDD Filename: Prep12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: GENCHEM
Method: 300.0 **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.01	J	0.834	MDL	1.67	PQL	MG/KG	J	Z

Method Category: METALS
Method: 6020 **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES/TOT *Dilution:* 0.962

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.102	J	0.0535	MDL	0.107	PQL	MG/KG	J	Z

Method Category: SVOA
Method: 6850 **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	3.25	J	2.78	MDL	5.56	PQL	UG/KG	J	Z

Method Category: SVOA
Method: 8015B EFH **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.78	J	0.56	MDL	1.1	PQL	MG/KG	U	B

Method Category: SVOA
Method: 8270C SIM **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.98	J	0.95	MDL	1.9	PQL	UG/KG	J	Z
PYRENE	0.95	J	0.95	MDL	1.9	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B130 **Laboratory: EMXT**

EDD Filename: Prep12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: **VOA**

Method: **8015B GRO** ***Matrix:*** **AQ**

Sample ID: TB-021312 ***Collected:*** 2/13/2012 8:00:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
GASOLINE RANGE ORGANICS (C5-C12)	30	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B130 **Laboratory: EMXT**

EDD Filename: Prep12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B130

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12B130 **Laboratory: EMXT**

EDD Filename: 12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **6020**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-146-SA5C-SB-47.5-48.5MS (TOT) (SL-146-SA5C-SB-47.5-48.5)	IRON	136	-	75.00-125.00	-	IRON	No Qual, >4x
SL-146-SA5C-SB-47.5-48.5MSD (TOT) (SL-146-SA5C-SB-47.5-48.5)	TITANIUM	-	57	75.00-125.00	-	TITANIUM	No Qual, >4x

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Method Blank Outlier Report

Lab Reporting Batch ID: 12B130 **Laboratory: EMXT**

EDD Filename: 12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **8015B EFH**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
DSB021SB	2/17/2012 5:49:00 PM	EFH(C8-C11) TOTAL EFH(C8-C40)	0.61 MG/KG 0.61 MG/KG	SL-146-SA5C-SB-47.5-48.5

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-146-SA5C-SB-47.5-48.5(RES)	EFH(C8-C11)	0.78 MG/KG	1.1U MG/KG

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Reporting Limit Outliers

Lab Reporting Batch ID: 12B130 **Laboratory: EMXT**

EDD Filename: 12B130R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-021312	GASOLINE RANGE ORGANICS (C5-C12)	J	30	50	PQL	UG/L	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	Nitrate-NO3	J	1.01	1.67	PQL	MG/KG	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	CADMIUM	J	0.102	0.107	PQL	MG/KG	J (all detects)

Method: 6850
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	PERCHLORATE	J	3.25	5.56	PQL	UG/KG	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	EFH(C8-C11)	J	0.78	1.1	PQL	MG/KG	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	BENZO(G,H,I)PERYLENE	J	0.98	1.9	PQL	UG/KG	J (all detects)
	PYRENE	J	0.95	1.9	PQL	UG/KG	

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

LDC #: 27992A4
SDG #: 12B130
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 7-9-12
Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~) 7471A

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:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (Fe, Ti >4x)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	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	ND	EB= EB-SA5C-SB-021512 (12B145)

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-146-SA5C-SB-47.5-48.5	11		21		31	
2	↓ MS	12		22		32	
3	↓ MSD	13		23		33	
4		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: _____

SAMPLE DELIVERY GROUP

12B137

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
14-Feb-2012	TB-021412	B137-03	TB	5030B	8260B	III
14-Feb-2012	TB-021412	B137-03	TB	5030B	8260B SIM	III
14-Feb-2012	TB-021412	B137-03R	TB	5030B	8015B GRO	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	3550B	8270C	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	3550B	8270C SIM	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	7471A	7471A	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	300.0	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	314.0	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	6020	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	7199	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	8015B	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	8015M	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	8330A	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	8332	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	9014	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02	N	GEN PREP	9045D	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0D	B137-02D	DUP	GEN PREP	9045D	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02R	N	3550B	8015B EFH	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02R	N	GEN PREP	7199	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	B137-02W	N	3550B	8082	III
14-Feb-2012	SL-148-SA5C-SB-40.5	B137-01	N	5035	8015B GRO	III
14-Feb-2012	SL-148-SA5C-SB-40.5	B137-01	N	5035	8260B	III
14-Feb-2012	SL-148-SA5C-SB-40.5	B137-01	N	5035	8260B 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*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 12B137 **Laboratory: EMXT**

EDD Filename: Prep12B137R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: METALS
Method: 6020 **Matrix: SO**

Sample ID: SL-148-SA5C-SB-40.0-41.0 *Collected:* 2/14/2012 12:10:00 *Analysis Type:* RES/TOT *Dilution:* 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.107	J	0.106	MDL	0.212	PQL	MG/KG	J	Z

Method Category: SVOA
Method: 8015B EFH **Matrix: SO**

Sample ID: SL-148-SA5C-SB-40.0-41.0 *Collected:* 2/14/2012 12:10:00 *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)	0.69	J	0.54	MDL	1.1	PQL	MG/KG	J	Z
EFH(C8-C11)	1.5		0.54	MDL	1.1	PQL	MG/KG	U	B

Method Category: SVOA
Method: 8270C SIM **Matrix: SO**

Sample ID: SL-148-SA5C-SB-40.0-41.0 *Collected:* 2/14/2012 12:10:00 *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	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BENZO(A)PYRENE	1.1	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	9.0	MDL	18	PQL	UG/KG	J	Z
PYRENE	0.99	J	0.91	MDL	1.8	PQL	UG/KG	J	Z

Method Category: VOA
Method: 8015B GRO **Matrix: AQ**

Sample ID: TB-021412 *Collected:* 2/14/2012 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	18	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B137 **Laboratory: EMXT**

EDD Filename: Prep12B137R **eQAPP Name: CDM_SSFL_120718_EMAX**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B137

Method Blank Outlier Report

Lab Reporting Batch ID: 12B137 **Laboratory: EMXT**

EDD Filename: 12B137R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: **8015B EFH**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
DSB021SB	2/17/2012 5:49:00 PM	EFH(C8-C11) TOTAL EFH(C8-C40)	0.61 MG/KG 0.61 MG/KG	SL-148-SA5C-SB-40.0-41.0

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-148-SA5C-SB-40.0-41.0(RES)	EFH(C8-C11)	1.5 MG/KG	1.5U MG/KG

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Reporting Limit Outliers

Lab Reporting Batch ID: 12B137 **Laboratory: EMXT**

EDD Filename: 12B137R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-021412	GASOLINE RANGE ORGANICS (C5-C12)	J	18	50	PQL	UG/L	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA5C-SB-40.0-41.0	ANTIMONY	J	0.107	0.212	PQL	MG/KG	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA5C-SB-40.0-41.0	EFH(C15-C20)	J	0.69	1.1	PQL	MG/KG	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA5C-SB-40.0-41.0	BENZO(A)ANTHRACENE	J	1.7	1.8	PQL	UG/KG	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.8	PQL	UG/KG	
	BENZO(G,H,I)PERYLENE	J	1.5	1.8	PQL	UG/KG	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	18	PQL	UG/KG	
	PYRENE	J	0.99	1.8	PQL	UG/KG	

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

LDC #: 27992B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-19-12
SDG #: 12B137 ADR Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: AL
2nd Reviewer: AL

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~ 7471A)

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:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (from SDG: 12B130)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	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	ND	EB=EB-SA5C-SB-021512 (12B145)

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-148-SA5C-SB-40.0-41.0	11		21		31	
2		12		22		32	
3		13		23		33	
4		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: _____

SAMPLE DELIVERY GROUP

12B145

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-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	3520C	8015B EFH	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	3520C	8082	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	3520C	8270C	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	5030B	8015B GRO	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	5030B	8260B	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	5030B	8260B SIM	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	7470A	7470A	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	300.0	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	314.0	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	6020	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	7199	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	8015B	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	8015M	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	8330A	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	8332	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	9014	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01	EB	GEN PREP	9040C	III
15-Feb-2012	EB-SA5C-SB-021512DUP	B145-01D	DUP	GEN PREP	9040C	III
15-Feb-2012	EB-SA5C-SB-021512	B145-01R	EB	GEN PREP	7199	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: 12B145 **Laboratory: EMXT**

EDD Filename: 12B145 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB-SA5C-SB-021512 *Collected:* 2/15/2012 3:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	52	U	21	MDL	52	PQL	UG/L	UJ	E

Method Category: VOA

Method: 8015B GRO **Matrix: AQ**

Sample ID: EB-SA5C-SB-021512 *Collected:* 2/15/2012 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	15	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B145 **Laboratory: EMXT**

EDD Filename: 12B145 **eQAPP Name: CDM_SSFL_120718_EMAX**

Reason Code Legend

Reason Code	*Description*
E	Laboratory Control Precision
L	Laboratory Control Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B145

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12B145 **Laboratory: EMXT**

EDD Filename: 12B145 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SVB027WC (EB-SA5C-SB-021512)	BENZIDINE	-	-	20.00-130.00	57 (30.00)	BENZIDINE	J (all detects) UJ (all non-detects)

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Reporting Limit Outliers

Lab Reporting Batch ID: 12B145 **Laboratory: EMXT**

EDD Filename: 12B145 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: **8015B GRO**

Matrix: **AQ**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5C-SB-021512	GASOLINE RANGE ORGANICS (C5-C12)	J	15	50	PQL	UG/L	J (all detects)

LDC #: 27992C4
SDG #: 12B145
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 7-19-12
Page: 1 of 1
Reviewer: AR
2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~ 7470A)

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:
II.	ICP/MS Tune	A	
III.	Calibration	—	
IV.	Blanks	A	ICB hit → no qual
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	N	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	ND	EB=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: water

1	EB-SA5C-SB-021512	11		21		31	
2		12		22		32	
3		13		23		33	
4		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: _____

SAMPLE DELIVERY GROUP

12B146

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-Feb-2012	TB-021512	B146-07	TB	5030B	8260B	IV
15-Feb-2012	TB-021512	B146-07	TB	5030B	8260B SIM	IV
15-Feb-2012	TB-021512	B146-07R	TB	5030B	8015B GRO	IV
15-Feb-2012	SL-147-SA5C-SB-55.5	B146-01	N	5035	8260B	IV
15-Feb-2012	SL-147-SA5C-SB-55.5	B146-01	N	5035	8260B SIM	IV
15-Feb-2012	SL-147-SA5C-SB-55.5	B146-01W	N	5035	8015B GRO	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	3550B	8082	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	3550B	8270C	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	3550B	8270C SIM	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	7471A	7471A	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	300.0	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	314.0	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	6020	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	7199	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	8015B	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	8015M	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	8330A	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	8332	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	9014	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02	N	GEN PREP	9045D	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0D	B146-02D	DUP	GEN PREP	9045D	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0M	B146-02M	MS	GEN PREP	8330A	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0M	B146-02M	MS	GEN PREP	8332	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02R	N	3550B	8015B EFH	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02R	N	GEN PREP	7199	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	B146-02T	N	3550B	8082	IV

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-Feb-2012	SL-147-SA5C-SB-40.5	B146-03	N	5035	8260B	IV
15-Feb-2012	SL-147-SA5C-SB-40.5	B146-03	N	5035	8260B SIM	IV
15-Feb-2012	SL-147-SA5C-SB-40.5	B146-03W	N	5035	8015B GRO	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	3550B	8082	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	3550B	8270C	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	3550B	8270C SIM	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	7471A	7471A	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	300.0	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	314.0	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	6020	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	7199	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	8015B	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	8015M	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	8330A	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	8332	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	9014	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04	N	GEN PREP	9045D	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04R	N	3550B	8015B EFH	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	B146-04R	N	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-9.0	B146-05	N	5035	8260B	IV
15-Feb-2012	SL-261-SA5A-SB-9.0	B146-05	N	5035	8260B SIM	IV
15-Feb-2012	SL-261-SA5A-SB-9.0	B146-05W	N	5035	8015B GRO	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	3550B	8082	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	3550B	8270C	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	3550B	8270C SIM	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	7471A	7471A	IV

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-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	300.0	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	314.0	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	6020	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	8015B	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	8015M	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	8330A	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	8332	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	9014	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06	N	GEN PREP	9045D	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5DUP	B146-06D	DUP	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5DUP	B146-06D	DUP	GEN PREP	9014	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5MS	B146-06G	MS	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5MS	B146-06G1	MS	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5MS	B146-06M	MS	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5MS	B146-06M	MS	GEN PREP	9014	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5MS	B146-06M1	MS	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06R	N	3550B	8015B EFH	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	B146-06R	N	GEN PREP	7199	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5DUP	B146-06Z	DUP	GEN PREP	7199	IV

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: 12B146 **Laboratory: EMXT**

EDD Filename: Prep12B146R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-147-SA5C-SB-55.0-56.0 *Collected:* 2/15/2012 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.13	J	0.846	MDL	1.69	PQL	MG/KG	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES/TOT *Dilution:* 0.962

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.100	J	0.0510	MDL	0.102	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: SL-147-SA5C-SB-40.0-41.0 *Collected:* 2/15/2012 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
EFH(C8-C11)	0.84	J	0.55	MDL	1.1	PQL	MG/KG	U	B

Sample ID: SL-147-SA5C-SB-55.0-56.0 *Collected:* 2/15/2012 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	1.1	J	0.56	MDL	1.1	PQL	MG/KG	U	B

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.69	J	0.53	MDL	1.1	PQL	MG/KG	U	B
TOTAL EFH(C8-C40)	0.69	J	0.53	MDL	1.1	PQL	MG/KG	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B146 **Laboratory: EMXT**

EDD Filename: Prep12B146R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: VOA

Method: 8015B GRO ***Matrix:*** AQ

Sample ID: TB-021512 ***Collected:*** 2/15/2012 8:00:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
GASOLINE RANGE ORGANICS (C5-C12)	31	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B146 **Laboratory: EMXT**

EDD Filename: Prep12B146R **eQAPP Name: CDM_SSFL_120718_EMAX**

Reason Code Legend

Reason Code	*Description*
*XIII	Exceeded Calibration Range or RPD Between Columns
A	ICP Serial Dilution
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B146

Method Blank Outlier Report

Lab Reporting Batch ID: 12B146 **Laboratory: EMXT**

EDD Filename: 12B146R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **8015B EFH**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
DSB021SB	2/17/2012 5:49:00 PM	EFH(C8-C11) TOTAL EFH(C8-C40)	0.61 MG/KG 0.61 MG/KG	SL-147-SA5C-SB-40.0-41.0 SL-147-SA5C-SB-55.0-56.0 SL-261-SA5A-SB-8.5-9.5

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-147-SA5C-SB-40.0-41.0(RES)	EFH(C8-C11)	0.84 MG/KG	1.1U MG/KG
SL-147-SA5C-SB-55.0-56.0(RES)	EFH(C8-C11)	1.1 MG/KG	1.1U MG/KG
SL-261-SA5A-SB-8.5-9.5(RES)	EFH(C8-C11)	0.69 MG/KG	1.1U MG/KG
SL-261-SA5A-SB-8.5-9.5(RES)	TOTAL EFH(C8-C40)	0.69 MG/KG	1.1U MG/KG

Reporting Limit Outliers

Lab Reporting Batch ID: 12B146 **Laboratory: EMXT**

EDD Filename: 12B146R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-021512	GASOLINE RANGE ORGANICS (C5-C12)	J	31	50	PQL	UG/L	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-147-SA5C-SB-55.0-56.0	Nitrate-NO3	J	1.13	1.69	PQL	MG/KG	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-261-SA5A-SB-8.5-9.5	CADMIUM	J	0.100	0.102	PQL	MG/KG	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-147-SA5C-SB-40.0-41.0	EFH(C8-C11)	J	0.84	1.1	PQL	MG/KG	J (all detects)
SL-261-SA5A-SB-8.5-9.5	EFH(C8-C11) TOTAL EFH(C8-C40)	J J	0.69 0.69	1.1 1.1	PQL PQL	MG/KG MG/KG	J (all detects)

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 26, 2012

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.5
SL-147-SA5C-SB-40.5
SL-261-SA5A-SB-9.0
TB-021512

Introduction

This data review covers 3 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample TB-021512 was identified as a trip blank. No volatile contaminants were found.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No volatile 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.5 SL-147-SA5C-SB-40.5 SL-261-SA5A-SB-9.0 TB-021512	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D1a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer:
2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

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: 2/15/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ± 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 4, EB = EB-SA5C-SB-021512 (SDG 12B145)

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 + water

1	SL-147-SA5C-SB-55.5	11	MBLK1W	21		31	
2	SL-147-SA5C-SB-40.5	12	MBLK1S	22		32	
3	SL-261-SA5A-SB-9.0	13	MBLK2S	23		33	
4	TB-021512	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	

LDC #: 27992P1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: W

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours 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 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?	✓			

LDC #: 27992D|a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [signature]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical 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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 27992D1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL V001J31	10/31/11	C (1st internal standard)	0.515	0.515	0.461	0.461	7.36	7.36
			S (2nd internal standard)	0.435	0.435	0.442	0.442	8.12	8.12
			JJJ (3rd internal standard)	1.581	1.581	1.561	1.561	2.00	2.00
			(4th internal standard)						
2	ICAL V03B16	2/16/12	C (1st internal standard)	(50) 0.247	(50) 0.247	0.243	0.243	10.76	10.76
			S (2nd internal standard)	0.367	0.367	0.371	0.371	1.53	1.53
			JJJ (3rd internal standard)	1.385	1.385	1.405	1.405	5.03	5.03
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

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 #: 27992D/2c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBV213	2/16/12	C (1st internal standard)	0.461	0.381	0.381	17.4	17.4
			S (2nd internal standard)	0.442	0.488	0.488	10.4	10.4
			JJJ (3rd internal standard)	1.561	1.709	1.709	9.5	9.5
			(4th internal standard)					
2	RBB309	2/21/12	C (1st internal standard)	0.243	0.268	0.268	10.3	10.3
			S (2nd internal standard)	0.371	0.359	0.359	3.2	3.2
			JJJ (3rd internal standard)	1.405	1.466	1.466	4.3	4.3
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

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 #: 27992D1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	50.09	100	100	0
1,2-Dichloroethane-d4	↓	51.15	102	102	↓
Toluene-d8		48.50	97.0	97	
Bromofluorobenzene		51.29	103	103	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 27992D1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCS ID SOIL

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	50.0	50.0	48.8	49.5	98	98	99	99	1	1
Trichloroethene	↓	↓	48.5	49.1	97	97	98	98	1	1
Benzene			48.9	50.0	98	98	100	100	2	2
Toluene			49.0	50.4	98	98	101	101	3	3
Chlorobenzene			49.7	50.8	99	99	102	102	2	2

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992D1a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: ✓

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____ , _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.5
SL-147-SA5C-SB-40.5
SL-261-SA5A-SB-9.0
TB-021512

Introduction

This data review covers 3 soil samples and one water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-021512 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No 1,4-dioxane was 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.5 SL-147-SA5C-SB-40.5 SL-261-SA5A-SB-9.0 TB-021512	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D1b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/23/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: RT
2nd Reviewer: V

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

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: 2/15 | 12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ ±
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	client specified
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	FB= 4, EB= EB-SA5C-SB-021512 (SDG 12B145)

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 + Water

1	SL-147-SA5C-SB-55.5	11 1	MBLK1W	21		31	
2	SL-147-SA5C-SB-40.5	12 2	MBLK1S	22		32	
3	SL-261-SA5A-SB-9.0	13 2	MBLK2S	23		33	
4 1	TB-021512	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	

LDC #: 27992D1b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: FT
2nd Reviewer: ✓

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours 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 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?	✓			

LDC #: 27992D1b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical 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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 27992D1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	V0F5K03	11/3/11	1,4- Dioxane (1st internal standard)	1.248	1.248	1.231	1.231	13.19	13.19
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)	(100)	(100)				
2	V0F5J31	10/31/11	↓ (1st internal standard)	1.053	1.053	1.145	1.145	7.02	7.02
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

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 #: 27992016

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBY335	2/21/12	1,4-Dioxane (1st internal standard)	1.231	1.219	1.219	1.0	1.0
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	BBY323	2/17/12	↓ (1st internal standard)	1.145	1.074	1.074	6.2	6.2
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

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 #: 27972V1D

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: ✓

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4	20	18.11	90.6	90.6	0
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 27992 D1b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: lcs ID

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4-Dioxane										
~~1,1-Dichloroethene~~	200	200	197	208	99	99	104	104	5	5
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992015

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____, _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 15, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No semivolatile 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D2a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: R
2nd Reviewer: R

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

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: 2/15/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30 r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (RL)/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	EB = EB-SA5C-SB-021512 (SDG 12B145)

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-147-SA5C-SB-55.0-56.0	11	MBLK15	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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	

LDC #: 27992D2a

VALIDATION FINDINGS CHECKLIST

Page: 1 of _
Reviewer: FT
2nd Reviewer: W

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?				
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?	✓			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	-		✓	
Were retention times within ± 30 seconds from the associated calibration standard?		✓		
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?		✓		
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.		✓		
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	V	✓		
Target compounds were detected in the field blanks.		V	V	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27992D2a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4AX	01/25/12	Phenol (1st internal standard)	1.328	1.328	1.300	1.300	1.82	1.82
			Naphthalene (2nd internal standard)	1.043	1.043	1.028	1.028	1.92	1.92
			Fluorene (3rd internal standard)	1.406	1.406	1.404	1.404	2.66	2.66
			Pentachlorophenol (4th internal standard)	0.165	0.165	0.161	0.161	8.70	8.70
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.762	0.762	0.733	0.733	7.63	7.63
			Benzo(a)pyrene (6th internal standard)	1.134 (40)	1.134 (40)	1.103	1.103	3.48	3.48
2	SVE4AXA	1/25/12	~~Benzaldehyde~~ Phenol (1st internal standard)						
			~~Benzidine~~ Naphthalene (2nd internal standard)	0.866	0.866	0.783	0.783	13.68	13.65
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992 D2a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBJ098	2/16/12	Phenol (1st internal standard)	1.300	1.283	1.283	1.3	1.3
			Naphthalene (2nd internal standard)	1.028	0.980	0.980	4.7	4.7
			Fluorene (3rd internal standard)	1.404	1.333	1.333	5.1	5.1
			Pentachlorophenol (4th internal standard)	0.161	0.154	0.154	4.3	4.3
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.733	0.756	0.756	3.1	3.1
			Benzo(a)pyrene (6th internal standard)	1.103	1.066	1.066	3.4	3.4
2	RBJ099	2/16/12	Benzidine	0.783	0.820	0.820	4.7	4.7
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992D2a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10	6.19	61.9	61.9	0
2-Fluorobiphenyl	↓	6.37	63.7	63.7	
Terphenyl-d14	↓	9.20	92.0	92.0	
Phenol-d5	30	19.25	64.2	64.2	
2-Fluorophenol	↓	18.82	62.7	62.7	
2,4,6-Tribromophenol	↓	24.43	81.4	81.4	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992122a

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: lcs 1D

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	667	667	521	486	78	78	73	73	7	7
N-Nitroso-di-n-propylamine			541	492	81	81	74	74	9	9
4-Chloro-3-methylphenol			536	482	80	80	72	72	11	11
Acenaphthene			542	499	81	81	75	75	8	8
Pentachlorophenol			511	471	77	77	71	71	8	8
Pyrene	↓	↓	554	489	83	83	73	73	12	12

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992029

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: W

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , _____:

Conc. = ( )( )( )( )( )
( )( )( )( )( )

=

ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No semivolatile 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D2b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12

SDG #: 12B146 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories Inc. Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ SVOA (EPA SW 846 Method 8270C-SIM)

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: 2/15/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RD ≤30, r^2
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = EB-SA5C-SB-021512 (SDG 12B146)

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-147-SA5C-SB-55.0-56.0	11	MBLK15	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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	

LDC #: 27992d2b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 4
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992D2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: ~

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓	✓		
Target compounds were detected in the field blanks.		✓	✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27972026

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4A25S	01/25/12	~~Phenol (1st internal standard)~~	-					
			Naphthalene (2nd internal standard)	3.606	3.606	3.773	3.773	8.47	8.47
			Anthracene ~~Fluorene~~ (3rd internal standard)	1.175	1.175	1.146	1.146	3.14	3.14
			Benzo(a)pyrene ~~Pentachlorophenol (4th internal standard)~~	1.115	1.115	0.991	0.991	13.16	13.16
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~						
			~~Benzo(a)pyrene (6th internal standard)~~						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992D2b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: V

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RB1098	2/16/12	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	3.773	3.434	3.434	9.0	9.0
			~~Fluorene~~ Anthracene (3rd internal standard)	1.146	1.097	1.097	4.3	4.3
			~~Pentachlorophenol~~ Benzo(g)pyrene (4th internal standard)	0.991	1.043	1.043	5.2	5.2
			~~Bis(2-ethylhexyl)phthalate (5th internal standard~~					
			~~Benzo(a)pyrene (6th internal standard)~~					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992 p2b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: W

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10.0	6.87	68.7	68.7	0
2-Fluorobiphenyl	↓	6.32	63.2	63.2	↓
Terphenyl-d14	↓	9.10	91.0	91.0	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992 D2b
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: W

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	333	333	301	287	90	90	86	86	5	5
Pentachlorophenol										
Pyrene	1	1	286	279	86	86	84	84	2	2

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992006

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , _____:

Conc. = ( )( )( )( )( )
( )( )( )( )( )

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5
SL-147-SA5C-SB-55.0-56.0DL

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 8082 for Polychlorinated Biphenyls.

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 multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The 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 difference (%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.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-147-SA5C-SB-55.0-56.0DL. Since the sample was diluted out, no data were qualified.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) 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 and Reported RLs

All compound quantitation and RLs 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-147-SA5C-SB-55.0-56.0	Aroclor 1248	87	J (all detects)	A

All compound quantitation and RLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SL-147-SA5C-SB-55.0-56.0	Aroclor 1248	Sample result exceeded calibration range.	Reported result should be within calibration range.	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

The overall assessment of data was acceptable. In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
SL-147-SA5C-SB-55.0-56.0	Aroclor 1248	R	A
SL-147-SA5C-SB-55.0-56.0DL	All TCL compounds except Aroclor 1248	R	A

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
Polychlorinated Biphenyls - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0	Aroclor 1248	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
12B146	SL-147-SA5C-SB-55.0-56.0	Aroclor 1248	J (all detects)	A	Compound quantitation and RLs (exceeded range) (*XIII)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5 SL-147-SA5C-SB-55.0-56.0DL	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
12B146	SL-147-SA5C-SB-55.0-56.0	Aroclor 1248	R	A	Overall assessment of data (D)
12B146	SL-147-SA5C-SB-55.0-56.0DL	All TCL compounds except Aroclor 1248	R	A	Overall assessment of data (D)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D3b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B146 Level IV Page: of
Laboratory: EMAX Laboratories, Inc. Reviewer:
2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

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: 2/15/12
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
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	SW	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	TB = EB - SA5C - SB - 021512 (SDG = 12B146)

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-147-SA5C-SB-55.0-56.0	11	MBLK1S	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4	#1 DL	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 #: 27992D3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: MM

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 #: 27992D3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: ✓

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.		✓		
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 #: 27920036

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer:

METHOD: ✓ **GC** __ **HPLC**

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples and blanks?

Y N N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	4	surrogate outside limit		( )	no qual >5x PL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 27992D3b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [signature]

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	Finding	Associated Samples	Qualifications
	~~PCB~~ - 1248 Aroclor	x'd cal Range	1	J / A det

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27992D3b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: FT
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	Finding % RPD Bet 2 col	Associated Samples	Qualifications
	Aroclor 1248	87	1	J / A det

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27992036

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

✓ Y N N/A Was the overall quality and usability of the data acceptable?

#	Compound Name	Finding	Associated Samples	Qualifications
	PCB 1248 Aroclor	x'ld cal Range	1	R/A
	All except Above	diluted	4	R/A

Comments: _____

OVRNew.wpd

LDC #: 27992036
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (50 std)	Recalculated CF (50 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/4/12	Aroclor 1260-1 ZB-1	2804.74	2804.74	3556.357	3556.357	13.5	13.5
			ZB-2	9401	9401	12028.8	12028.8	18.5	18.5
2									
3									
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 #: 27992036
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	KB7016A	2/17/16	Aroclor 1260 ZB-1	500	538.372	538.372	8	8
			ZB-2	500	417.132	417.132	17	17
2	KB20002A	2/20/16	↓	↓	537.755	537.755	8	8
			↓	↓	532.849	532.849	7	7
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 #: 27992D3b
SDG #: pu cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: EJ
2nd Reviewer: [signature]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration; SC = Concentration
SA = Spike added
LCS = Laboratory control sample percent recovery; LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 10

Compound	Spike Added (ug/kg)		Spiked 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)										
Aroclo 1260	66.7	66.7	69.2	69.05	104	104	103	103	0	0

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 #: 27992035
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

4/30.02

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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. #4 Compound Name Aroclor 1248

Concentration = $\frac{(10275.12)(1)}{(30.02)(0.887)}$

= 1543 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	1248-1 = 214585 (20) / 2728.8 = 1572.72			1248-1 =	1572.72
				-2 =	2106.32
				-3 =	2111.76
				-4 =	2141.04
				-5 =	2343.28
				Total =	10275.12

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6020A and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

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 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. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No metal contaminants were found.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

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. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B146	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG 12B146

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D4
SDG #: 12B146
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 7-20-12
Page: 1 of 1
Reviewer: AL
2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/7000) 7471A

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: 2/15/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	A	MS/D (SDG: 12B130)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	ND	EB= EB-SA5C-SB-021512 (SDG: 12B145)

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: SO1

1	SL-147-SA5C-SB-55.0-56.0	11		21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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 #: 27998D4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer: V

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. 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.		✓		
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike 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 +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.	✓			
VII. 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% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
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 analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 27992J4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: ✓

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
13		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
ICP-MS		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

Comments: Mercury by CVAA if performed

LDC #: 27992O4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and 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 (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
	ICP (Initial calibration)						
ICV	ICP/MS (Initial calibration)	Co	30.06	30	100	100	Y
ICV	CVAA (Initial calibration)	Hg	2.15	2	100	—	↓
	ICP (Continuing calibration)						
CCV4	ICP/MS (Continuing calibration)	Mo	25.35	25	101	101	
CCV3	CVAA (Continuing calibration)	Hg	4.7	5	94	—	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

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 #: 29920Y

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: W

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, 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

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICS AB	ICP interference check	Zn	20,39	20	102	102	Y
LCS	Laboratory control sample	Ba	25,0	25,0	100	100	
SL-146-SA5C-SS-47,5-48,5	Matrix spike	B	(SSR-SR) 28.1	27,3	103	103	
	Duplicate	Zn	28.1	27.0	4	4	
	ICP serial dilution	Al	660	690	5	5	

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.

LDC #: 27992D4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

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 and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for N1 were recalculated and verified using the followin equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{100mL(10)(11.99mg/L)}{0.887(7.05)(1000)} = 6.59mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	9500	9500	Y
		As	2.77	2.77	
		Ba	78.1	78.1	
		Be	0.401	0.401	
		Cd	0.126	0.126	
		Ca	4250	4250	
		Cr	10.4	10.4	
		Co	4.05	4.05	
		Cu	5.70	5.70	
		Fe	18300	18300	
		Pb	4.45	4.45	
		Mg	3970	3970	
		Mn	262	262	
		Mo	0.212	0.212	
		Ni	6.60	6.59	
		K	3280	3280	
		Na	209	209	
		Sr	11.4	11.4	
		Tl	0.278	0.278	
		Ti	994	994	
		V	23.6	23.6	
		Zn	60.3	60.3	
		Li	27.0	27.0	
		P	365	365	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5
SL-261-SA5A-SB-8.5-9.5MS
SL-261-SA5A-SB-8.5-9.5DUP

Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9010A/9014 for Cyanide, EPA Method 300.0 for Nitrate, Nitrite, and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, and EPA Method 314.0 for Perchlorate.

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 of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No contaminant concentrations were found.

V. 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.

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) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG 12B146

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D6 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-2012

SDG #: 12B146 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: AL

2nd Reviewer: V

METHOD: (Analyte) Cyanide (EPA SW846 Method 9010A/9014), Nitrate-N, Nitrite-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), Perchlorate (EPA Method 314.0)

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: 2/15/12
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/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	ND	EB = EB-SA5C-SB-021512 (SDG: 12B145)

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-147-SA5C-SB-55.0-56.0	11		21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4	↓ MS	14		24		34	
5	↓ DUP	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 #: 27099B6

VALIDATION FINDINGS CHECKLIST

Reviewer: QB
2nd Reviewer: W

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 #: 27926b

VALIDATION FINDINGS CHECKLIST

Reviewer: AR
2nd Reviewer: VC

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 #: 27992D

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-3	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC: 4,5	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments: _____

LDC #: 27992D6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: AR
2nd Reviewer: V

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 2/13/12

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

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	F	s1	0.05	1.786	*0.999975*	0.999974	Y
		s2	0.1	3.601			
		s3	0.2	7.191			
		s4	0.5	18.53			
		s5	1	37.56			
		s6	2	74.44			
		s7	5	183.6			
Calibration verification	NO3	ICV	1	1,004	100.4	100.4	
Calibration verification	ClO4	CCV	15	14,582	97.2	97.2	
Calibration verification	SO4	↓	2	1,886	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 #: 29970S

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: QR
2nd Reviewer:

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 = Found / True x 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 = |S-D| / (S+D)/2 x 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	F	5.95	6	99	99	Y
Y	Matrix spike sample	Cl	(SSR-SR) 157	198	79	79		
S	Duplicate sample	"	ND	ND	0	0	"

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.

LDC #: 27992

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: QR
2nd reviewer: W

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 F reported with a positive detect were recalculated and verified using the following equation:

Concentration = $\frac{(0.027211(\text{Area}) - 0.0055520)\text{Vol}}{\text{Wt}(\%\text{ Solid})}$

Recalculation: $\frac{(0.027211(18.047) - 0.0055520)60\text{ML}}{20.005\text{g}\ (0.887)} = 1.64$ mg/k

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	F	1.64	1.64	Y
		NO_3N	1.13	1.13	Y

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 15, 2012
LDC Report Date:	July 25, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B146

Sample Identification

SL-147-SA5C-SB-55.5
SL-147-SA5C-SB-40.5
SL-261-SA5A-SB-9.0
TB-021512

Introduction

This data review covers 3 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-021512 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
TB-021512	3/15/12	Gasoline range organics	31 ug/L	All soil samples in SDG 12B146

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA5C-SB-021512	2/15/12	Gasoline range organics	15 ug/L	All soil samples in SDG 12B146

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.5 SL-147-SA5C-SB-40.5 SL-261-SA5A-SB-9.0 TB-021512	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D7 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12

SDG #: 12B146 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

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	~~SW~~ A	Sampling dates: 2/15/12
II	Initial calibration	A	%RSD ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specific
VII.	Laboratory control samples	A	LCS/D
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	N	
XIII.	Field blanks	SW	TB = 4 EB = EB-SA5C-SB-021512 SDG # 12B145

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 + Water

1	SL-147-SA5C-SB-55.5	11	MBLKIS	21		31	
2	SL-147-SA5C-SB-40.5	12	MBLKIW	22		32	
3	SL-261-SA5A-SB-9.0	13		23		33	
4	TB-021512 W	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 #: 27992D7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: PJ
2nd Reviewer:

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 #: 27992O7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: [signature]

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.		✓		
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 #: 27992D7
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: A
2nd Reviewer:

METHOD: X **GC** __ **HPLC**

X N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** mg/kg
Sampling date: 12/15/12
Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: EB

Associated Samples: All soils (ND)

Compound	Blank ID	Blank ID	Sample Identification							
	EB									
Gasoline Range Organics (5x)										
CRQL										

Blank units: _____ **Associated sample units:** _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Trip Blank/ Atmospheric Blank/ Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: _____

Associated Samples: _____

Compound	Blank ID	Blank ID	Sample Identification							
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 27992D7

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ~~GC/MS VOA (EPA SW 846 Method 8260)~~ GRO (GC)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units: ug/L **Associated sample units:** mg/kg
Sampling date: 3/15/12
Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: TB Associated Samples: All soils (ND)

Compound	Blank ID	Sample Identification								
	4									
Gasoline Range Organics	3									

Blank units: _____ **Associated sample units:** _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 27992D7
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FD
2nd Reviewer: VN

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (SPCC std)	Recalculated CF (SPCC std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/25/12	GRO C5-C12	17199	17199	17064.3	17064.3	3.2	3.2
2									
3									
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 #: 27992D7
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	FB21002A	2/21/12	GRO & C12	1000	933.76	933.76	7	7
	FB21011A	2/21/12	↓	1000	893.22	893.22	11	11
2								
	FB21022A	2/22/12	↓	1000	924.48	924.48	8	8
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 #: 27992D7
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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	
4-BFB	NS	40.0	31.45	78.6	78.6	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 #: 27992D7
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: GRO 165 17

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	25.0	25.0	22.8	25.7	91	91	103	103	12	12
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

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 #: 27992D7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 15, 2012
LDC Report Date:	July 25, 2012
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
MBLK15	2/17/12	EFH (C8-C11) Total EFH (C8-C40)	0.61 mg/Kg 0.61 mg/Kg	All samples in SDG 12B146

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-147-SA5C-SB-55.0-56.0	EFH (C8-C11)	1.1 mg/Kg	1.1U mg/Kg
SL-147-SA5C-SB-40.0-41.0	EFH (C8-C11)	0.84 mg/Kg	1.1U mg/Kg
SL-261-SA5A-SB-8.5-9.5	EFH (C8-C11) Total EFH (C8-C40)	0.69 mg/Kg 0.69 mg/Kg	1.1U mg/Kg 1.1U mg/Kg

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
12B146	SL-147-SA5C-SB-55.0-56.0	EFH (C8-C11)	1.1U mg/Kg	A	B
12B146	SL-147-SA5C-SB-40.0-41.0	EFH (C8-C11)	1.1U mg/Kg	A	B
12B146	SL-261-SA5A-SB-8.5-9.5	EFH (C8-C11) Total EFH (C8-C40)	1.1U mg/Kg 1.1U mg/Kg	A	B

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D8 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/23/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

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: 2/15/12
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	SW	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS 1/0
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	N	
XIII.	Field blanks	ND	EB = TB-SA5C-SB-02/15/12 (SDG 12B146)

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: 2012

1	SL-147-SA5C-SB-55.0-56.0	11	MBLK1S	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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 #: 27992D8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: [illegible]

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 #: 27992D8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: V

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓		VA	
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.		✓		
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 #: 27990PY

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [signature]

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 all samples associated with a given method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction procedure was performed?
Y N N/A Was a method blank performed with each extraction batch?
Y N N/A Were any contaminants found in the method blanks? If yes, please see findings below.

Level IV/D Only

Y N N/A (Gasoline and aromatics only)Was a method blank analyzed with each 24 hour batch?
Y N N/A Was a method blank analyzed for each analytical / extraction batch of ≤20 samples?

Summary Code (B)

Blank extraction date: 2/17/12 **Blank analysis date:** 2/17/12 **Associated samples:** All

Conc. units: mg/kg

Compound	Blank ID	Sample Identification						
	MBLK1S	5X	1	2	3			
EFH (C8-C11)	0.61	3.05	1.1/U	0.84/U 1.1U	0.69/U 1.1U			
Total EFH (C8-C40)	0.61	↓	-	-	0.69/1.1U			

Blank extraction date: ___ **Blank analysis date:** ___ **Associated samples:** ___

Conc. units: ___

Compound	Blank ID	Sample Identification						

ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 27992P8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				CF (100 std)	CF (100 std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD
1	ICAL	2/01/12	EFH (C8-C11)	25697	25697	23084.1	23084.1	10.8	10.8
2									
3									
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 #: 27992D8
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: V

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
CF = A/C

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	LBI7003A	3/17/12	EFH (C8-C40)	500.0	498.81	498.1	U	0
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 #: 27992P8
SDG #: see cover
METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: ✓

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	
Bromobenzene	NS	100	91.619	91.6	91.6	0
Hexacosane	↓	25.0	24.693	98.8	98.8	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 #: 27972P8
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: EV
2nd Reviewer: 1

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 1 & 17

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Total EPH (C9-C40)	50.0	50.0	60.5	57.6	121	121	115	115	5	5

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 #: 279208
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 EFH (8-11)

Concentration = $\frac{219694 \quad (3)}{23084.0647 \quad (30.01) \quad (0.887)}$

= 1.1 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALewwpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Nitroglycerine & PETN

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5
SL-147-SA5C-SB-55.0-56.0MS
SL-147-SA5C-SB-55.0-56.0MSD

Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8332 for Nitroglycerine and PETN.

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 for the primary (quantitation) column and confirmation column as required by the method.

Triplicate injections of the initial calibration were performed.

The 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.

III. Continuing Calibration

Continuing calibration 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 nitroglycerine or PETN contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No nitroglycerine or PETN contaminants were 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) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Nitroglycerine & PETN - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Nitroglycerine & PETN - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Nitroglycerine & PETN - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D24 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/23/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HPLC Nitroglycerine & PETN (EPA SW 846 Method 8332)

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: 2/15/12
II	Initial calibration	A	
III.	Calibration verification/ICV	A	
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	~~A~~	
VII.	Laboratory control samples	A	LCS ID
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	N	
XIII.	Field blanks	ND	EB = EB-SA5C-SB-02152 (SDG = 12B146)

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: 8012

1	SL-147-SA5C-SB-55.0-56.0	11	MBLK15	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4	#1MS	14		24		34	
5	#1MSD	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 #: 27992D24
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: W

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 #: 27992D24
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992 D24
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (10 std)	Recalculated CF (10 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	7/20/11	Nitroglycerin	102	102	108.1	108.1	5.1	5.1
	a-18								
2									
3									
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 #: 17992 D24
SDG #: w Conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	PB24002A	2/24/12	Nitroglycerin	750.00	759.47	759.47	1	1
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 #: 27992024
SDG #: see cover

METHOD: __ GC ~~HPLC~~

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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	
1,2-Dinitrobenzene	C-18	200	241.3	121	121	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 #: 27992024
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: EZ
2nd Reviewer: LA

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: 4 o 5

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)											
Nitroglycerin	7420	7420	ND	7570	7530	102	102	101	101	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 #: 27990D2A1
SDG #: All cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FD
2nd Reviewer: [illegible]

METHOD: ___ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 1P

Compound	Spike Added (ug/kg)		Spiked 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)										
Nitroglycerine	7500	7500	ND	7750	104	104	103	103	1	1
			7810							

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 #: 27992D24
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5
SL-147-SA5C-SB-55.0-56.0MS
SL-147-SA5C-SB-55.0-56.0MSD

Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

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 for the primary (quantitation) column and confirmation column as required by the method.

The 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.

III. Calibration Verification

Calibration verification was performed at the 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 explosive contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No explosive contaminants were 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) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D40 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/23/12

SDG #: 12B146 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: TD

2nd Reviewer: [signature]

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

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: 2/15/12
II	Initial calibration	A	% RSD ≤20
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/D
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	N	
XIII.	Field blanks	ND	TB = TB-SA5C-SB-021512 (SMC = 12B145)

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-147-SA5C-SB-55.0-56.0	11		21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4	#1 MS	14		24		34	
5	#2 MSD	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 #: 27992D4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FR
2nd Reviewer: [illegible]

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 #: 27992D4J
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: V

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.		✓		
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 #: 27P204U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (IS_{std})	Recalculated CF (IS_{std})	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/01/11	HMX Luna 5u Phenyl-Hex	236.90	236.90	227.042	227.042	12.9	10.7
			RDX	249.36	249.36	245.809	245.809	9.8	9.8
2									
3									
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.

INIC! C 1SB

LDC #: 17992P4U
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FD
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
CF = A/C

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	PB230070A	2/23/12	HMX	400.0	415.13	415.13	4	4
			RDX	↓	401.98	401.98	0	0
2	PB23020A	2/23/12	↓	↓	227.00	227.00	4	4
			↓	↓	245.8	245.8	1	1
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 #: 27992P4U
SDG #: see cover

METHOD: ___ GC ~~HPLC~~

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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 Reported	Percent Recovery Recalculated	Percent Difference
1,2 - Dinitrobenzene	Luna 5u Phenyl-Hexyl	200	214.6	107	107	U

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 27992 D4U
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
2nd Reviewer:

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 SA = Spike added SC = Sample concentration

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 4 & 5

Compound	Spike Added (ng/kg)		Sample Conc. (ng/kg)	Spike Sample Concentration (ng/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~~ 2,4,6-TNT (8330)	1980	2000	ND	1790	1860	90	90	93	93	3	3
~~2,4,6-Trinitrotoluene (8330)~~ HMX	1980	2000	ND	2240	2280	113	113	114	114	1	1

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 #: 27992 P40
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/Kg)		Spiked 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)	2000	2000	2230	2220	112	112	111	111	0	0
2,4,6-Trinitrotoluene (8330)	↓	↓	1870	1960	93	93	98	98	✓	✓

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 #: 27992D40
SDG #: pu gone

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: F
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 = _____ ND _____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No alcohol contaminants were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D43 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12

SDG #: 12B146 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

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: 2/15/12
II	Initial calibration	A	% RSD ≤20
III.	Calibration verification/ICV	A	RF/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	A N	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS ID
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	N	
XIII.	Field blanks	ND	FB=FB-SA5C-SB-021512 (SDG 12B146)

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-147-SA5C-SB-55.0-56.0	11	MBLK1S	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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 #: 27992D43
SDG #: all waters

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

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 #: 27991243
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: W

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.		✓		
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 #: 27992 D43
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (10 std)	Recalculated CF (10 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	8/29/11	Ethanol	13619	13619	13407.9	13407.9	12.5	12.5
2									
3									
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.

INICLC 1SB

LDC #: 27992D43
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: LW

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
CF = A/C

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	BB170034	2/17/12	Ethano	10.0	11.32	11.32	13	13
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 #: 27992D43
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FQ
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: res ID

Compound	Spike Added (ug/kg)		Spiked 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)										
Ethanol	10000	10000	7920	9050	79	79	90	90	13	13

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 #: 27992-D43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 =_____

AP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B146

Sample Identification

SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-261-SA5A-SB-8.5-9.5

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

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 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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No glycol contaminants were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B146	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG 12B146

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B146	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG 12B146

No Sample Data Qualified in this SDG

LDC #: 27992D45 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B146 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories Inc. Reviewer: EM
2nd Reviewer: VC

METHOD: GC Glycols (EPA SW 846 Method 8015B)

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: 2/15/12
II	Initial calibration	A	%D ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	N	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/D
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	N	
XIII.	Field blanks	ND	EB = EB-SA5C-SB-02/15/12 (SDG 12B145)

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-147-SA5C-SB-55.0-56.0	11	MBLK13	21		31	
2	SL-147-SA5C-SB-40.0-41.0	12		22		32	
3	SL-261-SA5A-SB-8.5-9.5	13		23		33	
4		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 #: 27992D45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: PJ
2nd Reviewer: [signature]

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 #: 27992045
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992D45
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (50 std)	Recalculated CF (50 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/22/11	ethylene Glycol	4989.50	4989.50	4738.86	4738.86	7.6	7.6
2									
3									
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.

INICIAL SB

LDC #: 27992D4J
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: FJ
2nd Reviewer:

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
CF = A/C

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	BB21003A	2/21/12	Ethylen Glycol	50.0	56.42	56.42	13	13
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 #: 27992D4S
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FD
2nd Reviewer: V

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: ICA ID

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Diethylene Glycol	50.0	50.0	42.9	46.4	86	86	93	93	8	8

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 #: 27992D45
SDG #: pu gone

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 =_____

NB

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

SAMPLE DELIVERY GROUP

12B160

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-Feb-2012	TB-021612	B160-05	TB	5030B	8260B	III
16-Feb-2012	TB-021612	B160-05	TB	5030B	8260B SIM	III
16-Feb-2012	TB-021612	B160-05R	TB	5030B	8015B GRO	III
16-Feb-2012	SL-260-SA5A-SB-6.0	B160-01	N	5035	8260B	III
16-Feb-2012	SL-260-SA5A-SB-6.0	B160-01	N	5035	8260B SIM	III
16-Feb-2012	SL-260-SA5A-SB-6.0	B160-01W	N	5035	8015B GRO	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	3550B	8015B EFH	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	3550B	8082	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	3550B	8270C	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	3550B	8270C SIM	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	7471A	7471A	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	300.0	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	314.0	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	6020	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	7199	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	8015B	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	8015M	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	8330A	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	8332	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	9014	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02	N	GEN PREP	9045D	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5DUP	B160-02D	DUP	GEN PREP	9045D	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.5	B160-02R	N	GEN PREP	7199	III
16-Feb-2012	SL-324-SA6-SB-25.5	B160-03W	N	5035	8015B GRO	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	3550B	8015B EFH	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	3550B	8082	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-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	3550B	8270C	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	3550B	8270C SIM	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	7471A	7471A	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	300.0	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	314.0	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	6020	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	7199	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	8015B	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	8015M	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04	N	GEN PREP	9045D	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	B160-04R	N	GEN PREP	7199	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: 12B160 **Laboratory: EMXT**

EDD Filename: Prep12B160R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-260-SA5A-SB-5.5-6.5 *Collected:* 2/16/2012 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	0.902	J	0.750	MDL	1.50	PQL	MG/KG	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-324-SA6-SB-25.0-26.0 *Collected:* 2/16/2012 2:20:00 *Analysis Type:* RES/TOT *Dilution:* 0.943

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.106	MDL	0.211	PQL	MG/KG	J	Z
CADMIUM	0.103	J	0.0529	MDL	0.106	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: SL-260-SA5A-SB-5.5-6.5 *Collected:* 2/16/2012 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.63	J	0.56	MDL	1.1	PQL	MG/KG	J	Z
TOTAL EFH(C8-C40)	0.63	J	0.56	MDL	1.1	PQL	MG/KG	J	Z

Sample ID: SL-324-SA6-SB-25.0-26.0 *Collected:* 2/16/2012 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.63	J	0.56	MDL	1.1	PQL	MG/KG	J	Z
TOTAL EFH(C8-C40)	0.63	J	0.56	MDL	1.1	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-324-SA6-SB-25.0-26.0 *Collected:* 2/16/2012 2:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.2	J	0.95	MDL	1.9	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B160 **Laboratory: EMXT**

EDD Filename: Prep12B160R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: VOA

Method: 8015B GRO **Matrix:** AQ

Sample ID: TB-021612 **Collected:** 2/16/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	31	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B160

Laboratory: EMXT

EDD Filename: Prep12B160R

eQAPP Name: CDM_SSFL_120718_EMAX

Reason Code Legend

Reason Code	*Description*
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B160

Reporting Limit Outliers

Lab Reporting Batch ID: 12B160 **Laboratory: EMXT**

EDD Filename: 12B160R **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-021612	GASOLINE RANGE ORGANICS (C5-C12)	J	31	50	PQL	UG/L	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-260-SA5A-SB-5.5-6.5	Nitrate-NO3	J	0.902	1.50	PQL	MG/KG	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-324-SA6-SB-25.0-26.0	ANTIMONY	J	0.122	0.211	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.103	0.106	PQL	MG/KG	

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-260-SA5A-SB-5.5-6.5	EFH(C8-C11)	J	0.63	1.1	PQL	MG/KG	J (all detects)
	TOTAL EFH(C8-C40)	J	0.63	1.1	PQL	MG/KG	
SL-324-SA6-SB-25.0-26.0	EFH(C8-C11)	J	0.63	1.1	PQL	MG/KG	J (all detects)
	TOTAL EFH(C8-C40)	J	0.63	1.1	PQL	MG/KG	

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-324-SA6-SB-25.0-26.0	NAPHTHALENE	J	1.2	1.9	PQL	UG/KG	J (all detects)

LDC #: 27992E4

SDG #: 12B160

Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 7-9-12

Page: 1 of 1

Reviewer: CL

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~ 7471A)

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:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (from 12B201)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	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	ND	EB= EB SASC-SB021512 (12B145)

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-260-SA5A-SB-5.5-6.5	11		21		31	
2	SL-324-SA6-SB-25.0-26.0	12		22		32	
3		13		23		33	
4		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: _____

SAMPLE DELIVERY GROUP

12B174

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-Feb-2012	TB-021712	B174-07	TB	5030B	8015B GRO	IV
17-Feb-2012	TB-021712	B174-07	TB	5030B	8260B	IV
17-Feb-2012	TB-021712	B174-07	TB	5030B	8260B SIM	IV
17-Feb-2012	SL-326-SA6-SB-23.5	B174-05	N	5035	8015B GRO	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	3550B	8082	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	3550B	8270C	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	3550B	8270C SIM	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	7471A	7471A	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	300.0	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	314.0	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	6020	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	7199	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	8015B	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	8015M	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06	N	GEN PREP	9045D	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0DU	B174-06D	DUP	GEN PREP	9045D	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06R	N	GEN PREP	7199	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	B174-06W	N	3550B	8015B EFH	IV
17-Feb-2012	SL-325-SA6-SB-22.0	B174-01	N	5035	8260B	IV
17-Feb-2012	SL-325-SA6-SB-22.0	B174-01I	N	5035	8015B GRO	IV
17-Feb-2012	SL-325-SA6-SB-22.0	B174-01R	N	5035	8260B SIM	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	3550B	8082	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	3550B	8270C	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	3550B	8270C SIM	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	7471A	7471A	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	300.0	IV

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-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	314.0	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	6020	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	7199	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	8015B	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	8015M	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	8330A	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	8332	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	9014	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02	N	GEN PREP	9045D	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02I	N	3550B	8015B EFH	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5MS	B174-02M	MS	7471A	7471A	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02R	N	GEN PREP	7199	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02T	N	3550B	8270C	IV
17-Feb-2012	SL-325-SA6-SB-22.5-23.5	B174-02T	N	3550B	8270C SIM	IV
17-Feb-2012	SL-325-SA6-SB-26.5	B174-03	N	5035	8015B GRO	IV
17-Feb-2012	SL-325-SA6-SB-26.5	B174-03	N	5035	8260B	IV
17-Feb-2012	SL-325-SA6-SB-26.5	B174-03R	N	5035	8260B SIM	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	3550B	8082	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	3550B	8270C	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	3550B	8270C SIM	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	7471A	7471A	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	300.0	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	314.0	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	6020	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	7199	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	8015B	IV

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-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	8015M	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	8330A	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	8332	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	9014	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04	N	GEN PREP	9045D	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0DU	B174-04D	DUP	GEN PREP	9014	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04I	N	3550B	8015B EFH	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0MS	B174-04M	MS	GEN PREP	9014	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	B174-04R	N	GEN PREP	7199	IV

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: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-326-SA6-SB-23.0-24.0 *Collected:* 2/17/2012 8:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.624	J	0.538	MDL	1.08	PQL	MG/KG	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-325-SA6-SB-22.5-23.5 *Collected:* 2/17/2012 11:45:00 *Analysis Type:* RES/TOT *Dilution:* 0.917

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9850		14.2	MDL	28.4	PQL	MG/KG	J	Q
ANTIMONY	0.292		0.118	MDL	0.237	PQL	MG/KG	J	Q
BARIUM	115		0.237	MDL	0.474	PQL	MG/KG	J	Q
BORON	5.35	J	2.96	MDL	5.92	PQL	MG/KG	J	Z, Q, E
CALCIUM	47900		11.8	MDL	23.7	PQL	MG/KG	J	Q
LEAD	633		0.118	MDL	0.237	PQL	MG/KG	J	Q, Q, E
SILVER	0.0974	J	0.0592	MDL	0.118	PQL	MG/KG	J	Z
THALLIUM	0.110	J	0.0592	MDL	0.118	PQL	MG/KG	J	Z
VANADIUM	29.3		0.0592	MDL	0.118	PQL	MG/KG	J	Q

Sample ID: SL-325-SA6-SB-26.0-27.0 *Collected:* 2/17/2012 12:20:00 *Analysis Type:* RES/TOT *Dilution:* 0.995

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10900		13.0	MDL	26.0	PQL	MG/KG	J	Q
ANTIMONY	0.217	U	0.109	MDL	0.217	PQL	MG/KG	UJ	Q
BARIUM	71.1		0.217	MDL	0.434	PQL	MG/KG	J	Q
BORON	5.43	U	2.71	MDL	5.43	PQL	MG/KG	UJ	E
CALCIUM	2920		10.9	MDL	21.7	PQL	MG/KG	J	Q
LEAD	5.49		0.109	MDL	0.217	PQL	MG/KG	J	Q, Q, E
VANADIUM	26.7		0.0543	MDL	0.109	PQL	MG/KG	J	Q

Sample ID: SL-326-SA6-SB-23.0-24.0 *Collected:* 2/17/2012 8:55:00 *Analysis Type:* RES/TOT *Dilution:* 0.935

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8830		12.1	MDL	24.1	PQL	MG/KG	J	Q
ANTIMONY	0.112	J	0.101	MDL	0.201	PQL	MG/KG	J	Z, Q
BARIUM	75.0		0.201	MDL	0.402	PQL	MG/KG	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-326-SA6-SB-23.0-24.0** ***Collected:*** **2/17/2012 8:55:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **0.935**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.03	U	2.51	MDL	5.03	PQL	MG/KG	UJ	E
CALCIUM	5220		10.1	MDL	20.1	PQL	MG/KG	J	Q
LEAD	3.38		0.101	MDL	0.201	PQL	MG/KG	J	Q, Q, E
VANADIUM	25.7		0.0503	MDL	0.101	PQL	MG/KG	J	Q

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **SL-325-SA6-SB-22.5-23.5** ***Collected:*** **2/17/2012 11:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **0.993**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.107	J	0.0641	MDL	0.128	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: **SL-325-SA6-SB-26.0-27.0** ***Collected:*** **2/17/2012 12:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	3.1	J	2.7	MDL	5.5	PQL	MG/KG	J	Z

Sample ID: **SL-326-SA6-SB-23.0-24.0** ***Collected:*** **2/17/2012 8:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C12-C14)	0.94	J	0.54	MDL	1.1	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-325-SA6-SB-22.5-23.5** ***Collected:*** **2/17/2012 11:45:00** ***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	33		1.1	MDL	2.2	PQL	UG/KG	J	*XIII

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: SVOA
Method: 8082 **Matrix: SO**

Sample ID: SL-326-SA6-SB-23.0-24.0 *Collected:* 2/17/2012 8:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.5	J	1.8	MDL	3.5	PQL	UG/KG	J	Z

Method Category: SVOA
Method: 8270C **Matrix: SO**

Sample ID: SL-325-SA6-SB-26.0-27.0 *Collected:* 2/17/2012 12:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Tetralin	170		180	MDL	180	PQL	UG/KG	J	Z

Method Category: SVOA
Method: 8270C SIM **Matrix: SO**

Sample ID: SL-326-SA6-SB-23.0-24.0 *Collected:* 2/17/2012 8:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	17	J	9.0	MDL	18	PQL	UG/KG	J	Z
FLUORANTHENE	1.0	J	0.91	MDL	1.8	PQL	UG/KG	J	Z

Method Category: VOA
Method: 8015B **Matrix: SO**

Sample ID: SL-325-SA6-SB-22.5-23.5 *Collected:* 2/17/2012 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	590	J	320	MDL	650	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: VOA
Method: 8015B GRO **Matrix:** AQ

Sample ID: TB-021712 **Collected:** 2/17/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	41	J	10	MDL	50	PQL	UG/L	J	Z

Method Category: VOA
Method: 8260B **Matrix:** SO

Sample ID: SL-325-SA6-SB-22.0 **Collected:** 2/17/2012 11:40:00 **Analysis Type:** RES **Dilution:** 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	3.0	J	1.2	MDL	6.2	PQL	UG/KG	J	Z
ETHYLBENZENE	3.7	J	1.2	MDL	6.2	PQL	UG/KG	J	Z
m,p-Xylene	3.2	J	2.5	MDL	6.2	PQL	UG/KG	J	Z
O-XYLENE	1.5	J	1.2	MDL	6.2	PQL	UG/KG	J	Z
TETRACHLOROETHENE	5.8	J	1.2	MDL	6.2	PQL	UG/KG	J	Z
TOLUENE	2.9	J	1.2	MDL	6.2	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Reason Code Legend

Reason Code	*Description*
*XIII	RPD Between Columns
A	ICP Serial Dilution
E	Matrix Spike Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory:** EMXT

EDD Filename: Prep12B174SV **eQAPP Name:** CDM_SSFL_120730_EMAX

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-325-SA6-SB-22.5-23.5 ***Collected:*** 2/17/2012 11:45:00 ***Analysis Type:*** DL1-BASE/NEUTRAL ***Dilution:*** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	15	J	11	MDL	22	PQL	UG/KG	J	Z
CHRYSENE	11	J	11	MDL	22	PQL	UG/KG	J	Z

Sample ID: SL-325-SA6-SB-22.5-23.5 ***Collected:*** 2/17/2012 11:45:00 ***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(G,H,I)PERYLENE	6.2		1.1	MDL	2.2	PQL	UG/KG	J	S
INDENO(1,2,3-CD)PYRENE	2.1	J	1.1	MDL	2.2	PQL	UG/KG	J	Z, S

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: Prep12B174SV **eQAPP Name: CDM_SSFL_120730_EMAX**

Reason Code Legend

Reason Code	*Description*
*XIII	Exceeded Calibration Range
A	ICP Serial Dilution
I	Internal Standard Estimation
I	Internal Standard Rejection
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B174

Surrogate Outlier Report

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: 12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **8015B GRO**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-325-SA6-SB-22.0	4-Bromofluorobenzene	0	60.00-130.00	All Target Analytes	No Qual, Diluted Out

Method: **8270C**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-326-SA6-SB-23.0-24.0	2,4,6-TRIBROMOPHENOL	22.1	35.00-130.00	No Affected Compounds	

Surrogate Outlier Report

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: 12B174SV **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **8270C**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-325-SA6-SB-22.5-23.5	Nitrobenzene-d5	207	40.00-130.00	No Affected Compounds	
SL-325-SA6-SB-22.5-23.5	2,4,6-TRIBROMOPHENOL	3.3	35.00-130.00	All Acid Target Analytes	J(all detects) R(all non-detects)
SL-325-SA6-SB-22.5-23.5	2-FLUOROPHENOL	21.5	25.00-130.00		
SL-325-SA6-SB-22.5-23.5 (DL1)	Nitrobenzene-d5	163	40.00-130.00	No Affected Compounds	
SL-325-SA6-SB-22.5-23.5 (DL1)	2,4,6-TRIBROMOPHENOL 2-FLUOROPHENOL	0 0	35.00-130.00 25.00-130.00	All Acid Target Analytes	No Qual, Diluted Out

Method: **8270C SIM**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-325-SA6-SB-22.5-23.5	2-FLUOROBIPHENYL	0.585	45.00-130.00	All Base/Neutral Target Analytes	J(all detects) R(all non-detects)
SL-325-SA6-SB-22.5-23.5	Nitrobenzene-d5	30.3	40.00-130.00		

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Reporting Limit Outliers

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: 12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-021712	GASOLINE RANGE ORGANICS (C5-C12)	J	41	50	PQL	UG/L	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-326-SA6-SB-23.0-24.0	FLUORIDE	J	0.624	1.08	PQL	MG/KG	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.5-23.5	BORON	J	5.35	5.92	PQL	MG/KG	
	SILVER	J	0.0974	0.118	PQL	MG/KG	J (all detects)
	THALLIUM	J	0.110	0.118	PQL	MG/KG	
SL-326-SA6-SB-23.0-24.0	ANTIMONY	J	0.112	0.201	PQL	MG/KG	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.5-23.5	MERCURY	J	0.107	0.128	PQL	MG/KG	J (all detects)

Method: 8015B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.5-23.5	METHANOL	J	590	650	PQL	UG/KG	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-26.0-27.0	EFH(C8-C11)	J	3.1	5.5	PQL	MG/KG	J (all detects)
SL-326-SA6-SB-23.0-24.0	EFH(C12-C14)	J	0.94	1.1	PQL	MG/KG	J (all detects)

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Reporting Limit Outliers

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: 12B174R **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-326-SA6-SB-23.0-24.0	Aroclor 5460	J	2.5	3.5	PQL	UG/KG	J (all detects)

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.0	1,2,4-TRIMETHYLBENZENE	J	3.0	6.2	PQL	UG/KG	J (all detects)
	ETHYLBENZENE	J	3.7	6.2	PQL	UG/KG	
	m,p-Xylene	J	3.2	6.2	PQL	UG/KG	
	O-XYLENE	J	1.5	6.2	PQL	UG/KG	
	TETRACHLOROETHENE	J	5.8	6.2	PQL	UG/KG	
	TOLUENE	J	2.9	6.2	PQL	UG/KG	

Method: 8270C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-26.0-27.0	Tetralin		170	180	PQL	UG/KG	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-326-SA6-SB-23.0-24.0	BENZO(B)FLUORANTHENE	J	1.2	1.8	PQL	UG/KG	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	17	18	PQL	UG/KG	
	FLUORANTHENE	J	1.0	1.8	PQL	UG/KG	

Reporting Limit Outliers

Lab Reporting Batch ID: 12B174 **Laboratory: EMXT**

EDD Filename: 12B174SV **eQAPP Name: CDM_SSFL_120730_EMAX**

Method: **8270C SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.5-23.5	BENZO(A)ANTHRACENE	J	15	22	PQL	UG/KG	J (all detects)
	CHRYSENE	J	11	22	PQL	UG/KG	
	INDENO(1,2,3-CD)PYRENE	J	2.1	2.2	PQL	UG/KG	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 30, 2012

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.0
SL-325-SA6-SB-26.5
TB-021712

Introduction

This data review covers 2 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

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.

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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample TB-021712 was identified as a trip blank. No volatile contaminants were found.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No volatile contaminants were found.

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.0 SL-325-SA6-SB-26.5 TB-021712	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

LDC #: 27992F1a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: TD
2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

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: 2/17/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3 EB = SA5C-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.0	11		21		31	
2	SL-325-SA6-SB-26.5	12		22		32	
3	TB-021712	13		23		33	
4		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	

LDC #: 27992Fla

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours 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 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?	✓			

LDC #: 27992F|2

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical 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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓	A		
Target compounds were detected in the field blanks.		✓	A	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 27992F1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF	Recalculated RRF	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL V001J31	10/31/11	C (1st internal standard)	0.515	0.515	0.461	0.461	7.36	7.36
			S (2nd internal standard)	0.435	0.435	0.442	0.442	8.12	8.12
			JJJ (3rd internal standard)	1.581	1.581	1.561	1.561	2.00	2.00
			(4th internal standard)						
2	ICAL V03B16	2/16/12	C (1st internal standard)	(50) 0.247	(50) 0.247	0.243	0.243	10.76	10.76
			S (2nd internal standard)	0.367	0.367	0.371	0.371	1.53	1.53
			JJJ (3rd internal standard)	1.385	1.385	1.405	1.405	5.03	5.03
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

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 #: 27992F1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBV247	2/21/12	C (1st internal standard)	0.461	0.380	0.380	17.6	17.6
			S (2nd internal standard)	0.442	0.465	0.465	5.2	5.2
			JJJ (3rd internal standard)	1.561	1.596	1.596	2.2	2.2
			(4th internal standard)					
2	RBB3309	2/21/12	C (1st internal standard)	0.243	0.268	0.268	10.3	10.3
			S (2nd internal standard)	0.371	0.359	0.359	3.2	3.2
			JJJ (3rd internal standard)	1.405	1.466	1.466	4.3	4.3
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

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 #: 27990 F1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	46.40	92.8	92.8	0
1,2-Dichloroethane-d4		55.51	111	111	
Toluene-d8		49.83	99.7	99.7	
Bromofluorobenzene		41.51	83	83	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 27992F1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: vcs1P

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	50	50	48.8	49.5	98	98	99	99	1	1
Trichloroethene			48.5	49.1	97	97	98	98	1	1
Benzene			48.9	50.0	98	98	100	100	2	2
Toluene			49.0	50.4	98	98	101	101	3	3
Chlorobenzene			49.7	50.8	99	99	102	102	2	2

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992F1e

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 agree within 10.0% of the reported results?

5.48

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1 , CC :

Conc. = $\frac{(116545)(50)(5)}{(162985)(1.545)(5.48)(0.73)}$

=

2.9 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 15, 2012

LDC Report Date: July 25, 2012

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.0
SL-325-SA6-SB-26.5
TB-021712

Introduction

This data review covers 2 soil samples and one water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-021712 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No 1,4-dioxane was 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.0 SL-325-SA6-SB-26.5 TB-021712	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F1b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer:

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

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: 2/15/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3 EB = EB-SASC-SB-021512 (SDG 12B145)

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 + water

1	SL-325-SA6-SB-22.0	11	MB1KIW	21		31	
2	SL-325-SA6-SB-26.5	12		22		32	
3	TB-021712	13		23		33	
4		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	

LDC #: 27992F1b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?	✓	✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓		✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours 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 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?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical 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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓		✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 27972F1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	V0F5K03	11/3/11	1,4-Dioxane (1st internal standard)	1.248	1.248	1.231	1.231	13.19	13.19
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)	(10)	(10)				
2	V0F5J31	10/31/11	↓ (1st internal standard)	1.053	1.053	1.145	1.145	7.02	7.02
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

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 #: 27992P16

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBY335	2/25/12	1,4-Dioxane (1st internal standard)	1.231	1.219	1.219	1.0	1.0
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	RBY370	2/23/12	↓ (1st internal standard)	1.145	1.236	1.236	7.9	7.9
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

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 #: 27992 F1D

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Dibromofluoromethane~~					
1,2-Dichloroethane-d4	20.0	10.20	~~+020~~ 51.0	51.0	0
~~Toluene-d8~~					
~~Bromofluorobenzene~~					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 27992F1b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCS 110

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene										
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										
1,4-Dioxane	200	200	218	219	109	109	109	109	0	0

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992F1b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____ , _____:

Conc. = $\frac{(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

= NP

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 17, 2012
LDC Report Date:	July 25, 2012
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0
SL-325-SA6-SB-22.5-23.5DL

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 8270C for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No semivolatile 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	2,4,6-Tribromophenol 2-Fluorobiphenyl	3.30 (35-130) 21.5 (25-130)	All acid compounds	J (all detects) R (all non-detects)	A

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	Naphthalene-d8	135991 (555384-2221536)	Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Bis(2-chloroethoxy)methane 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-methylphenol Benzoic acid 3-5,-Dimethylphenol	J (all detects) R (all non-detects)	A

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	Acenaphthene-d10	268774 (313669-1254674)	Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline 3-Nitroaniline 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene 4-Chlorophenyl-phenyl ether 4-Nitroaniline	J (all detects) UJ (all non-detects)	A

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

The overall assessment of data was acceptable. In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	All TCL compounds	R	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5	Phenol 2-Chlorophenol 2-Methylphenol 4-Methylphenol 2-Nitrophenol 2,4-Dimethylphenol 2,4-Dichlorophenol 4-Chloro-3-methylphenol 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4-Dinitrophenol 4-Nitrophenol 4,6-Dinitro-2-methylphenol Pentachlorophenol Benzoic acid	J (all detects) R (all non-detects)	A	Surrogate spikes (%R) (S)
12B174	SL-325-SA6-SB-22.5-23.5	Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Bis(2-chloroethoxy)methane 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-methylphenol Benzoic acid 3-5,-Dimethylphenol	J (all detects) R (all non-detects)	A	Internal standards (area) (I)
12B174	SL-325-SA6-SB-22.5-23.5	Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline 3-Nitroaniline 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene 4-Chlorophenyl-phenyl ether 4-Nitroaniline	J (all detects) UJ (all non-detects)	A	Internal standards (area) (I)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0 SL-325-SA6-SB-22.5-23.5DL	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
12B174	SL-325-SA6-SB-22.5-23.5	All TCL compounds	R	A	Overall assessment of data (D)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F2a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: F
2nd Reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

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: 2/17/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r2
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	~~SW~~	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	~~SW~~ A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	~~A~~ SW	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	EB= EB-SASC-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11		21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4	#1 DL	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	

LDC #: 27992F29

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992FD9

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓	✓		
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓	✓		
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.		✓		
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓	✓		
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

NPT

ANT ✓

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline ✓	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene ✓	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol ✓	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol ✓	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran ✓	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene ✓	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate ✓	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene ✓	MM. 4-Chlorophenyl-phenyl ether ✓	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol ✓	NN. Fluorene ✓	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol ✓	OO. 4-Nitroaniline ✓	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene ✓	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline ✓	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU. 3,5-Dimethylphenol
N. 2-Nitrophenol	CC. Dimethylphthalate ✓	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV. Biphenyl ✓
O. 2,4-Dimethylphenol	DD. Acenaphthylene ✓	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27992 F2a

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were percent recoveries (%R) for surrogates within QC limits?
Y (N) N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y (N) N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

(5)

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		1	TBP	3.30 (35-130)	J/R/A All Acid + PPP
			2FP	21.5 (35-130)	↓ ↓
			NBZ	207 (40-130)	no qual
				( )	
				( )	
				( )	
		4	surrogates	outside limit)	no qual 10X PL
				( )	
				( )	
				( )	
				( )	
				( )	
		3	TBP	22.1 (35-130)	no qual
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116
S3 (TPH) = Terphenyl-d14	18-137	33-141
S4 (PHL) = Phenol-d5	24-113	10-94

	QC Limits (Soil)	QC Limits (Water)
S5 (2FP)= 2-Fluorophenol	25-121	21-100
S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 27992F29

VALIDATION FINDINGS WORKSHEET
Internal Standards

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were all internal standard area counts within -50 to +100 of the associated calibration standard?

Y (N) N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

(I)

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
25%		1	NPT	135991 (555384 – 222153 6)		J/UJR/A see list
			ANT	268774 (313669 – 125 4674)		J/UJ/A ↓

LDC #: 27992F29

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: FT
2nd Reviewer: _____

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Date	Compound	Finding	Associated Samples	Qualifications
		All TCL ~~except~~ ~~EEE~~	low SS (<10%)	1	R/A (1)
		~~EEE~~	~~lower Result~~	~~4~~	~~R/A~~ (D)

Comments: _____

OVR.2S

LDC #: 27992 F 24

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4AX	01/25/12	Phenol (1st internal standard)	1.328	1.328	1.300	1.300	1.82	1.82
			Naphthalene (2nd internal standard)	1.043	1.043	1.028	1.028	1.92	1.92
			Fluorene (3rd internal standard)	1.406	1.406	1.404	1.404	2.66	2.66
			Pentachlorophenol (4th internal standard)	0.165	0.165	0.161	0.161	8.70	8.70
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.762	0.762	0.733	0.733	7.63	7.63
			Benzo(a)pyrene (6th internal standard)	1.134	1.134	1.103	1.103	3.48	3.48
2	SVE4AXA	1/25/12	~~Benzaldehyde~~ Phenol (1st internal standard)	(40)	(40)				
			~~Benzidine~~ Naphthalene (2nd internal standard)	0.866	0.866	0.783	0.783	13.68	13.65
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992F29
~~SDG #:~~

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBJ16	2/23/12	Phenol (1st internal standard)	1.300	1.290	1.290	0.8	0.8
			Naphthalene (2nd internal standard)	1.028	0.977	0.977	5.0	5.0
			Fluorene (3rd internal standard)	1.404	1.348	1.348	4.0	4.0
			Pentachlorophenol (4th internal standard)	0.161	0.159	0.159	1.2	1.2
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.733	0.796	0.796	8.6	8.6
			Benzo(a)pyrene (6th internal standard)	1.103	1.072	1.072	2.8	2.8
2	RBJ162	2/23/12	~~Phenol (1st internal standard)~~ Benzidine	0.783	0.887	0.887	13.2	13.2
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992F29

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBJ139	2/22/12	Phenol (1st internal standard)	1.300	1.253	1.253	3.6	3.6
			Naphthalene (2nd internal standard)	1.028	0.992	0.992	3.5	3.5
			Fluorene (3rd internal standard)	1.404	1.357	1.357	3.3	3.3
			Pentachlorophenol (4th internal standard)	0.161	0.160	0.160	0.60	0.60
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.733	0.761	0.761	3.8	3.8
			Benzo(a)pyrene (6th internal standard)	1.103	1.078	1.078	2.3	2.3
2	RBJ140	2/22/12	~~Phenol (1st internal standard)~~ Benzo(a)pyrene	0.783	0.833	0.833	6.4	6.4
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992F29

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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: #3

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10	5.06	50.6	50.6	0
2-Fluorobiphenyl	↓	5.91	59.1	59.1	
Terphenyl-d14	↓	8.18	81.8	81.8	
Phenol-d5	30	15.14	50.5	50.5	
2-Fluorophenol	↓	14.46	48.2	48.2	
2,4,6-Tribromophenol	↓	19.51	65.0	65.0	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992F29

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 1 & 10

Compound	Spike Added (ug/Kg)		Spike Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	667	667	508	464	76	76	70	70	9	9
N-Nitroso-di-n-propylamine			5110	467	77	77	70	70	9	9
4-Chloro-3-methylphenol			528	481	79	79	72	72	9	9
Acenaphthene			534	493	80	80	74	74	8	8
Pentachlorophenol			526	532	79	79	80	80	1	1
Pyrene			599	560	90	90	84	84	7	7

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992F2q

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example: 1/30

Sample I.D. #4 , S :

Conc. = $\frac{(266623)(40)(1)(10)(10,00)}{(892532)(1.028)(30)(0.774)}$

=

5000 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0
SL-325-SA6-SB-22.5-23.5DL

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 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No semivolatile 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	Nitrobenzene-d5 2-Fluorobiphenyl	30.3 (40-130) 0.585 (45-130)	All TCL compounds	J (all detects) R (all non-detects)	P

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SL-325-SA6-SB-22.5-23.5	Naphthalene	Sample result exceeded calibration range.	Reported result should be within calibration range.	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

The overall assessment of data was acceptable. In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
SL-325-SA6-SB-22.5-23.5	All TCL compounds except Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	R	A
SL-325-SA6-SB-22.5-23.5DL	Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	R R	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5	All TCL compounds	J (all detects) R (all non-detects)	P	Surrogate spikes (%R) (S)
12B174	SL-325-SA6-SB-22.5-23.5	Naphthalene	J (all detects)	A	Compound quantitation and RLs (exceeded range) (*XII)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0 SL-325-SA6-SB-22.5-23.5DL	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
12B174	SL-325-SA6-SB-22.5-23.5	All TCL compounds except Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	R	A	Overall assessment of data (D)
12B174	SL-325-SA6-SB-22.5-23.5DL	Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	R R	A	Overall assessment of data (D)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F2b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
SVOA 2nd Reviewer: [illegible]

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

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: 2/17/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	SW	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	SW	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	EB = EB-SA5C-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MBLK1S	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4	#1DL	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	

LDC #: 27992F2b

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?		✓		
If 2 or more base neutral or acid surrogates were 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?		✓		
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?	✓		NA	

LDC #: 27992Fdb

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.		✓		
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27990f2b

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were percent recoveries (%R) for surrogates within QC limits?
Y (N) N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y (N) N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		1	NBZ	30.3 (40-130)	J/R/P All TCL (S)
			FBP	0.585 (45-130)	↓
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
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				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116
S3 (TPH) = Terphenyl-d14	18-137	33-141
S4 (PHL) = Phenol-d5	24-113	10-94
S5 (2FP)= 2-Fluorophenol	25-121	21-100
S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 27992F2b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported RLs

Reviewer: FT
2nd Reviewer: _____

METHOD: GC/MS BNA

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?
Y N N/A Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

#	Date	Compound	Finding	Associated Samples	Qualifications
		S	x'd cal Range	1	J/A det * x 11

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27992F2b

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: FT
2nd Reviewer: _____

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y N N/A Was the overall quality and usability of the data acceptable?

#	Date	Compound	Finding	Associated Samples	Qualifications
		All TCL	low surrogate	1	R/A (D)
		except LLL, JJJ	<10%		
		LLL, JJJ	results ND	4	R/A (D)

Comments: _____

LDC #: 27972F26

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4A25	01/25/12	~~Phenol (1st internal standard)~~	-					
			Naphthalene (2nd internal standard)	3.606	3.606	3.773	3.773	8.47	8.47
			~~Fluorene~~ Anthracene (3rd internal standard)	1.175	1.175	1.146	1.146	3.14	3.14
			Pentachlorophenol (4th internal standard) Benzo(a)pyrene	1.115	1.115	0.991	0.991	13.16	13.16
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~						
			~~Benzo(a)pyrene (6th internal standard)~~						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27990 FOb

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RB 1139	2/22/12	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	3.773	3.441	3.441	8.8	8.8
			~~Fluorene~~ Anthracene (3rd internal standard)	1.146	1.110	1.110	3.1	3.1
			~~Pentachlorophenol~~ Benzo(a) pyrene (4th internal standard)	0.991	1.057	1.057	6.7	6.7
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2	RB 1161	2/23/12	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	↓	3.438	3.438	8.9	8.9
			~~Fluorene~~ Anthracene (3rd internal standard)		1.101	1.101	3.9	3.9
			~~Pentachlorophenol~~ Benzo(a) pyrene (4th internal standard)		1.066	1.066	7.6	7.6
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~					
			~~Benzo(a)pyrene (6th internal standard)~~					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992 FB b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: _____

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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: #3

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10.0	5.40	54	54	0
2-Fluorobiphenyl	↓	5.20	52	52	↓
Terphenyl-d14	↓	8.63	86.3	86.3	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992Fab

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 10

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	333	333	272	270	82	82	81	81	1	1
Pentachlorophenol										
Pyrene	↓	↓	274	289	82	87	87	87	5	5

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992F0b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of _
Reviewer: FT
2nd reviewer: _____

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

1/30.03

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #3 , S :

Conc. = (3842)(40)(1)(1000)( ) / (385469)(3.773)(30.03)(0.917)( )

=

3.8 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 17, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

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 multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The 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 difference (%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.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No polychlorinated biphenyl 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) 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 and Reported RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	All compounds reported below the RL.	J (all detects)	A

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-325-SA6-SB-22.5-23.5	Aroclor-1254	55	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
Polychlorinated Biphenyls - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F3b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: A
2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

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: 2/17/12
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
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-SASC-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MBLK1S	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4		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 #: 27992F3b
SDG #: all covers

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer:

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 #: 27992F3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 21992F3b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: FT
2nd Reviewer: _____

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. Finding ≤40	Associated Samples	Qualifications
	Aroclor 1254	55	1	J/A det *x11

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27992 (F)
SDG #: (illegible)

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F?
2nd Reviewer: _____

METHOD: GC ✓ HPLC _____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (50 std)	Recalculated CF (50 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/4/12	Aroclor 1260-1 ZB-1	2804.74	2804.74	3556.357	3556.357	13.5	13.5
			ZB-2	9401	9401	12028.8	12028.8	18.5	18.5
2									
3									
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 #: 27990F36
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: F2
2nd Reviewer:

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
CF = A/C

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	KB24012A	2/24/12	PCB 1260 ZB1	500	577.225	577.225	15	15
			ZB2	500	437.918	437.918	12	12
2	KB27022A	2/27/12	↓	↓	541.459	541.459	8	8
					410.869	410.869	18	18
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 #: 27990F3b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

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	
PCB	ch A	40	41.21	103	103	0
TCMX	L	40	40.58	101	101	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 #: 27992F3b
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: _____

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 SA = Spike added SC = Sample concentration

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: _____

Compound	Spike Added ( )		Sample Conc. ( )	Spike Sample Concentration ( )		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)											

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 #: 27992F3b
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F2
2nd Reviewer: _____

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/kg)		Spiked 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)										
Aroclor 1260	66.7	66.7	74.3	74.1	111	111	111	111	0	0

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 #: 27997F3b
SDG #: mu gaues

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: F
2nd Reviewer: _____

4/30.01

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 Aroclor 1254

Concentration = $\frac{\text{final } 336.65\ (4)}{(30.01)(0.774)}$

$= 58\ ug/kg$

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications
	1254-1 = 33296 / 4349.4 = 76.17			1254-1 = 76.17	
				2 = 57.04	
				3 = 71.36	
				4 = 60.10	
				5 = 71.98	
				Total = 336.65	

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0
SL-325-SA6-SB-22.5-23.5MS
SL-325-SA6-SB-22.5-23.5MSD

Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6020A and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

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 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. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No metal contaminants were found.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

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)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-187-SA7-SB-27.5-28.5 (All samples in SDG 12B174)	Aluminum	52 (75-125)	50 (75-125)	-	J (all detects) UJ (all non-detects)	A
	Antimony	74 (75-125)	-	-		
	Barium	59 (75-125)	69 (75-125)	-		
	Boron	-	-	40 (≤20)		
	Calcium	58 (75-125)	-	-		
	Lead	18 (75-125)	697 (75-125)	119 (≤20)		
	Vanadium	68 (75-125)	-	-		

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-187-SA7-SB-27.5-28.5 (All samples in SDG 12B174)	Boron	-	215 (75-125)	-	J (all detects)	

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B174	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG 12B174

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	Aluminum Antimony Barium Calcium Vanadium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	Boron	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD)(E)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	Boron	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	Lead	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (RPD) (Q,E)
12B174	SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-261-SA5A-SB-8.5-9.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-2012

SDG #: 12B174 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: AL

7471 A 2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method ~~6010B~~/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: 2/17/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS/D (SDG: 12F201)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	ND	EB= EB-SA5C-SB-021512 (SDG: 12B145)

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: SO: 1

1	SL-325-SA6-SB-22.5-23.5	11		21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4	(#1) MS,	14		24		34	
5	↓ MSD	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 #: 27aa2f4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: W

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. 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.		✓		
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?				
VI. Matrix spike/Matrix spike 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 +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.		✓		
VII. 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% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 27222F4

VALIDATION FINDINGS CHECKLIST

Reviewer: ER
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
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 analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 27992F4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: ✓

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-3		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
QC:4,5		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
ICP-MS		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

Comments: Mercury by CVAA if performed

LDC #: 27992F4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: AR
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% ~~for water samples and ≤35%~~ for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	SL-187-SA7-SB-27.5-28.5 (12F201)		Al	52	50		All	J/UJ/A (Q)
			Sb	74				
			Ba	59	69			
			B		215	~~40~~		J det/A Q)
			B			40		J/UJ/A (E)
			Ca	58				J/UJ/A (Q)
			Pb	18	697	119		(Q, E) (Pb SPS=75.7)
			V	68	75 or			(Q)

Comments:

LDC #: 27A2F4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and 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 (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
	ICP (Initial calibration)						
ICV	ICP/MS (Initial calibration)	Cr	30.50	30	102	102	Y
ICV	CVAA (Initial calibration)	Hg	2.09	2	105	-	
	ICP (Continuing calibration)						
CCV1	ICP/MS (Continuing calibration)	Pb	25.69	25	103	103	
CCV5	CVAA (Continuing calibration)	Hg	5.18	5	104	-	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

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 #: 27972F4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: QR
2nd Reviewer: 4

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, 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

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	V	19.44	20	97	97	Y
LCS	Laboratory control sample	Co	24.6	25	98	98	
SL-187SA7-SB-27.5-28.5	Matrix spike	Sn	(SSR-SR) 26.9	24.3	111	111	
	Duplicate	Li	39.4	40.5	3	3	
	ICP serial dilution	P	401	385	4	4	

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.

LDC #: 27992F4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: W

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

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 and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for S6 were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{18.96\ mg/L\ (100\ mL)(10)}{0.917\ (2.01\ g)(1000)} = 10.3\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	2	Al	10900	10900	Y
		As	3.91	3.91	
		Ba	71.1	71.1	
		Be	0.951	0.951	
		Cd	0.125	0.125	
		Ca	2920	2920	
		Cr	17.2	17.2	
		Co	4.87	4.87	
		Cu	5.70	5.70	
		Fe	19500	19500	
		Pb	5.49	5.49	
		Mg	5560	5560	
		Mn	268	268	
		Mo	1.01	1.01	
		Ni	9.22	9.22	
		K	3060	3060	
		Na	386	386	
		Se	10.3	10.3	
		Tl	0.206	0.206	
		Ti	791	791	
		V	26.7	26.7	
		Zn	49.7	49.7	
		Li	27.5	27.5	
		P	356	356	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0
SL-325-SA6-SB-26.0-27.0MS
SL-325-SA6-SB-26.0-27.0DUP

Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9010A/9014 for Cyanide, EPA Method 300.0 for Nitrate, Nitrite, and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, and EPA Method 314.0 for Perchlorate.

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 of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No contaminant concentrations were 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) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG 12B174

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F6
SDG #: 12B174
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 7-20-12
Page: 1 of 1
Reviewer: CR
2nd Reviewer: V

METHOD: (Analyte) Cyanide (EPA SW846 Method 9010A/9014), Nitrate-N, Nitrite-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), Perchlorate (EPA Method 314.0)

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: 2/17/12
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/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	ND	EB=EB-SA5C-SB-021512 (12B145)

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-325-SA6-SB-22.5-23.5	11		21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4	(X2) MS	14		24		34	
5	1 DUP	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 #: 27997F6

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: QR
2nd Reviewer: [illegible]

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?			✓	

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 #: 12092F6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: V

All circled methods are applicable to each sample.

Sample ID	Parameter
1-3	pH TDS Cl (F) NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC (Cr6+) (ClO_4)
1,2	pH TDS Cl F (NO_3) (NO_2) SO_4 O-PO_4 Alk (CN) NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC: 4,5	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk (CN) NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments:

LDC #: 24926

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: 9R
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 = Found / True x 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 = |S-D| / (S+D)/2 x 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	NO3	26	26.6	98	98	Y
4	Matrix spike sample	CN	(SSR-SR) 2.59	2.48	104	104	
S	Duplicate sample	↓	ND	ND	0	0	↓

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.

LDC #: 27902F6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: OR
2nd Reviewer: [signature]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 2/13/12

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	F	s1	0.05	1.786	*0.999975*	0.999974	Y
		s2	0.1	3.601			
		s3	0.2	7.191			
		s4	0.5	18.53			
		s5	1	37.56			
		s6	2	74.44			
		s7	5	183.6			
Calibration verification	NO_2	ICV	1	0.994	99.4	99.4	
Calibration verification	ClO_4	CCV	15	14.872	99.1	99.1	
Calibration verification	CN	↓	0.1	0.099	99	99	↓

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 #: 27997F6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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 F reported with a positive detect were recalculated and verified using the following equation:

Concentration = $0.027219(\text{Area}) - 0.0055587$

Recalculation:

$$\frac{60\text{mL}(0.027219(7.308) - 0.0055587)}{0.93(20.0021)} = 0.624 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	3	F	0.624	0.624	Y

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 17, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B174

Sample Identification

SL-325-SA6-SB-22.0
SL-325-SA6-SB-26.5
TB-021712
SL-326-SA6-SB-23.5

Introduction

This data review covers 3 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-021712 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
TB-021712	2/17/12	Gasoline range organics	41 ug/L	SL-325-SA6-SB-22.0 SL-325-SA6-SB-26.5 SL-326-SA6-SB-23.5

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA5C-SB-021512	2/15/12	Gasoline range organics	15 ug/L	All soil samples in SDG 12B174

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-325-SA6-SB-22.0. Since the sample was diluted out, no data were qualified.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.0 SL-325-SA6-SB-26.5 TB-021712 SL-326-SA6-SB-23.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F7 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

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: 2/17/12
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/LCSD
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	N	
XIII.	Field blanks	SW	TB = 3 EB: EB-SASC-SB-021512 SDG # 12B145

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 + water

1	SL-325-SA6-SB-22.0 S	11		21	MBLK1S	31	
2	SL-325-SA6-SB-26.5	12		22	MBLK1W	32	
3	TB-021712 W	13		23		33	
4	SL-326-SA6-SB-23.5 (S)	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 #: 27992f7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: RJ
2nd Reviewer: [illegible]

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 #: 27992F7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992F
SDG #:

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: F
2nd Reviewer: V

METHOD: V GC __ HPLC

EB = EB-SASC -SB - ~~07A~~ 02/15/12

(Y) N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units: ug/L Associated sample units: mg/kg
Sampling date: 2/15/12
Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: EB

Associated Samples: All soils (ND + 75%

Compound	Blank ID	Blank ID	Sample Identification							
	EB									
Gasoline Range Organics	15									
CRQL										

Blank units: _____ Associated sample units: _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Trip Blank/ Atmospheric Blank/ Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: _____

Associated Samples: _____

Compound	Blank ID	Blank ID	Sample Identification							
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 27992F7

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer: L

METHOD: ✓ **GC** __ **HPLC**

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 2/17/12
Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: TB

Associated Samples: 1, 2, 4 (75X : ND)

Compound	Blank ID	Blank ID	Sample Identification							
	3									
Gasoline Range Organics	41									
CRQL										

Blank units: _____ **Associated sample units:** _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Trip Blank/ Atmospheric Blank/ Ambient Blank Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: _____

Associated Samples: _____

Compound	Blank ID	Blank ID	Sample Identification							
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 27992F7

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer: L

METHOD: ~~GC~~ __ HPLC

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples and blanks?

Y N N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	1	surrogate	~~surrogate~~	~~limit~~ diluted out ( )	no qual > 5X PL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 27990F7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: L

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (ug/mL std)	Recalculated CF (ug/mL std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/25/12	GRO C5-C12	16866	16866	17064.3	17064.3	3.2	3.2
2									
3									
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 #: 27992F7
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F
2nd Reviewer:

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
CF = A/C

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	EB210224A	2/22/12	GRO (C_5-C_{12})	1000	920.62	920.62	8	8
	EB210334A	2/22/12	↓	↓	901.91	901.91	10	10
2								
	EB21044A	2/22/12	↓	1000	950.39	950.39	5	5
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 #: 27902F7
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: V

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: #2

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
4BFB	NS	40	30.97	77.4	77.4	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 #: 27992F7
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID soil

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	20.0	20.0	24.7	22.7	99	99	91	91	8	8
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

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 #: 27992F7
SDG #: pu gaver

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

5/5.81

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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. #2 Compound Name GRU

Concentration = $\frac{7773240 \quad (25)}{17064.3 \quad (5.55)(0.92)(0.1)(1000)}$

= 22 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 17, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-325-SA6-SB-22.5-23.5. Since the sample was diluted out, no data were qualified.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F8 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: 5
2nd Reviewer:

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

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: 2/17/12
II	Initial calibration	A	%RSD ≤20
III.	Calibration verification/ICV	A	%D ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	LCS/D
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	N	
XIII.	Field blanks	ND	EB = EB-SA5C-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MBLK1	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4		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 #: 27992F8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FJ
2nd Reviewer:

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 #: 27992F8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992FS

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer:

METHOD: __ GC __ HPLC

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples and blanks?

Y N N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	#1	surrogate	outside	limit ( )	no qual 100 X DL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 27992PS
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: PJ
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (50.0 std)	Recalculated CF (50.0 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/01/12	EFH (C8-C11)	25640	25640	23084.1	23084	10.8	10.8
2									
3									
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 #: 27992FS
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	LB23008A	2/23/12	Total EPH (dy-c40)	500.0	563.93	563.93	13	13
2	LB24010A	2/24/12	↓	↓	513.52	513.52	3	3
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 #: 27972F8
SDG #: see cover
METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: _____

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: # 2

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Bromobenzene	NS	20	12.872	64.4	64	0
Hexacosane	↓	5	5.183	104	104	↓

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 #: 27992F5
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FS
2nd Reviewer:

METHOD: GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Total EFH (C_8-C_{40})	50	50.0	45.0	53.7	90	90	107	107	18	18

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 #: 27992F8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: _____

METHOD: ✓ GC ___ HPLC

#1 3/30

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 EFH (C8-C11)

Concentration = $\frac{848352 \quad (3) \quad (100)}{23084.06471 \quad (30) \quad (0.774)}$

= 474 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 17, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil
Parameters:	Nitroglycerine & PETN
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8332 for Nitroglycerine and PETN.

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 for the primary (quantitation) column and confirmation column as required by the method.

Triplicate injections of the initial calibration were performed.

The 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.

III. Continuing Calibration

Continuing calibration 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 nitroglycerine or PETN was found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No nitroglycerine or PETN 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Nitroglycerine & PETN - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Nitroglycerine & PETN - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Nitroglycerine & PETN - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F24 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer:

METHOD: HPLC Nitroglycerine & PETN (EPA SW 846 Method 8332)

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: 2/17/12
II	Initial calibration	A	
III.	Calibration verification/ICV	A	
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified lcs ID
VII.	Laboratory control samples	A	
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	N	
XIII.	Field blanks	ND	EB= EB-SASC-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MB1K1S	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3		13		23		33	
4		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 #: 27992F24
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer:

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 #: 27992F24
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992F24
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FJ
2nd Reviewer: _____

METHOD: GC _____ HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (750 std)	Recalculated CF (750 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	7/20/11	Nitroglycerine	102	102	101.8	101.8	5.1	5.1
2									
3									
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 #: 27992 F2Y
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F2
2nd Reviewer:

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
CF = A/C

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	PB240028	2/24/12	Nitroglycerin	750	759.47	759.47	1	1
2	PB240138	2/24/12	"	"	778.28	778.28	4	4
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 #: 27992F24
SDG #: see cover

METHOD: __ GC ✓ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: _____

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	
1,2-DnB	c-18	200	229.8	115	115	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 #: 27992F24
SDG #: all covers

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F2
2nd Reviewer:

METHOD: __ GC _HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 117

Compound	Spike Added (ug/Kg)		Spiked 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)										
Nitroglycerin	7500	7500	7810	7750	104	104	103	103	1	1

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 #: 27992F24
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: _____

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

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 for the primary (quantitation) column and confirmation column as required by the method.

The 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.

III. Calibration Verification

Calibration verification was performed at the 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 explosive contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No expolsive contaminants were 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F40 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: F
2nd Reviewer:

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

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: 2/17/12
II	Initial calibration	A	%D ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/LCSD
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	N	
XIII.	Field blanks	ND	EB= FB-SA5C-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MBLK1S	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3		13		23		33	
4		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 #: 27992F4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

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 #: 27992F4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992F4U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: _____

METHOD: GC _____ HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (ng/mL std)	Recalculated CF (ng/mL std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/01/11	4AM Lung 54 Phenyl/Hexyl	236.90	236.90	227.042	227.042	12.9	12.9
			RDX	249.36	249.36	245.809	245.809	9.8	9.8
2	~~ICAL~~								
3									
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 #: 27992F4C
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	PB 23009A	2/23/12	HMX	400	415.13	415.13	4	4
			RDX	↓	401.98	401.98	0	0
2	PB23020A	2/23/12	↓	↓	414.39	414.39	4	4
					394.25	394.25	1	1
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 #: 27992-P40
SDG #: see cover

METHOD: __ GC / HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: _____

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	
1,2-DCB	Luna 5u Phenyl-Hexyl	200	200.	100	100	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 #: 27992F4U
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F
2nd Reviewer:

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: les 17

Compound	Spike Added (ug/kg)		Spiked 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)	2000	2000	2230	2220	112	112	111	111	0	0
2,4,6-Trinitrotoluene (8330)	↓	↓	1870	1960	93	93	98	98	5	5

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 #: 27992F40
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: _____

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 =_____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 30, 2012

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No alcohol contaminants were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F43 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: P
2nd Reviewer:

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

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: 2/17/12
II	Initial calibration	A	% RSD ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	N	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/D
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	N	
XIII.	Field blanks	ND	EB = EB-SASC-SB-021512 (SDG 12B145)

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: 5012

1	SL-325-SA6-SB-22.5-23.5	11	MBLK1S	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4		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 #: 27992F43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer:

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 #: 27992F43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992F43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F2
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (1/0 std)	Recalculated CF (1/0 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	8/29/11	ethanol	13619	13619	13407.9	13407.9	12.5	12.5
2									
3									
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 #: 27992F43
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	BB220044	2/22/12	ethanol	10.0	9.18	9.18	8	8
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 #: 27992F43
SDG #: file copy

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/kg)		Spiked 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)										
Ethanol	10000	10000	9670	9800	97	97	98	98	1	1

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 #: 27992F43
SDG #: MI water

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: F
2nd Reviewer: _____

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 Methanol

Concentration = $\frac{(4267)(10)(1000)}{(13407.8)(10.1)(0.774)}$

9330.5

$= 584.99$ ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 17, 2012

LDC Report Date: July 25, 2012

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B174

Sample Identification

SL-325-SA6-SB-22.5-23.5
SL-325-SA6-SB-26.0-27.0
SL-325-SA6-SB-23.0-24.0

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

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 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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

Sample EB-SA5C-SB-021512 (from SDG 12B145) was identified as an equipment blank. No glycol contaminants were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B174	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

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG 12B174

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B174	SL-325-SA6-SB-22.5-23.5 SL-325-SA6-SB-26.0-27.0 SL-325-SA6-SB-23.0-24.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG 12B174

No Sample Data Qualified in this SDG

LDC #: 27992F45 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/24/12
SDG #: 12B174 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories Inc. Reviewer: 1
2nd Reviewer:

METHOD: GC Glycols (EPA SW 846 Method 8015B)

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: 2/17/12
II	Initial calibration	A	%D RSD ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	N	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS ID
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	N	
XIII.	Field blanks	ND	EB = FB-SA5C-SB-021512 (SDG 12B145)

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-325-SA6-SB-22.5-23.5	11	MB 4K15	21		31	
2	SL-325-SA6-SB-26.0-27.0	12		22		32	
3	SL-325-SA6-SB-23.0-24.0	13		23		33	
4		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 #: 27992F45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FR
2nd Reviewer:

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 #: 27992F45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

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.		✓		
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 #: 27992F45
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F2
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (5 std)	Recalculated CF (5 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/22/11	Di Ethylene Glycol	4463.26	4463.26	4218.21	4218.21	9.8	9.1
2									
3									
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 #: 27992F4.5
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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	BB21003A	2/21/12	Diethylene Glycol	50.0	54.13	54.13	8	8
2	BB21016A	2/21/12	↓	↓	50.24	50.24	0	0
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 #: 27992F45
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F2
2nd Reviewer:

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: lcs ID

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Ethylene Glycol	50.0	50.0	53.3	54.2	107	107	108	108	2	2

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 #: 27992FY5
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: _____

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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: _____

SAMPLE DELIVERY GROUP

12B176

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
20-Feb-2012	TB-022012	B176-03	TB	5030B	8015B GRO	III
20-Feb-2012	SL-323-SA6-SB-23.5	B176-01	N	5035	8015B GRO	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	3550B	8082	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	3550B	8270C	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	3550B	8270C SIM	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	7471A	7471A	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	300.0	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	314.0	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	6020	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	7199	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	8015B	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	8015M	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02	N	GEN PREP	9045D	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0DU	B176-02D	DUP	GEN PREP	9045D	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02R	N	GEN PREP	7199	III
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	B176-02W	N	3550B	8015B EFH	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: 12B176 **Laboratory: EMXT**

EDD Filename: Prep12B176 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-323-SA6-SB-23.0-24.0 *Collected:* 2/20/2012 10:50:00 *Analysis Type:* RES/TOT *Dilution:* 0.893

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.114	J	0.0946	MDL	0.189	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-323-SA6-SB-23.0-24.0 *Collected:* 2/20/2012 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
FLUORANTHENE	1.1	J	0.90	MDL	1.8	PQL	UG/KG	J	Z
NAPHTHALENE	0.95	J	0.90	MDL	1.8	PQL	UG/KG	J	Z
PYRENE	1.2	J	0.90	MDL	1.8	PQL	UG/KG	J	Z

Method Category: VOA

Method: 8015B GRO **Matrix: AQ**

Sample ID: TB-022012 *Collected:* 2/20/2012 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	49	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B176 **Laboratory: EMXT**

EDD Filename: Prep12B176 **eQAPP Name: CDM_SSFL_120718_EMAX**

Reason Code Legend

Reason Code	*Description*
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B176

Reporting Limit Outliers

Lab Reporting Batch ID: 12B176 **Laboratory: EMXT**

EDD Filename: 12B176 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-022012	GASOLINE RANGE ORGANICS (C5-C12)	J	49	50	PQL	UG/L	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-323-SA6-SB-23.0-24.0	ANTIMONY	J	0.114	0.189	PQL	MG/KG	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-323-SA6-SB-23.0-24.0	FLUORANTHENE	J	1.1	1.8	PQL	UG/KG	J (all detects)
	NAPHTHALENE	J	0.95	1.8	PQL	UG/KG	
	PYRENE	J	1.2	1.8	PQL	UG/KG	

LDC #: 27992G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-19-12

SDG #: 12B176 ADR Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: AL

2nd Reviewer: L

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~) 7470A

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:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (from 12B201)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	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	ND	EB= SA7-SB-022212 (12B201)

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-323-SA6-SB-23.0-24.0	11		21		31	
2		12		22		32	
3		13		23		33	
4		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: _____

SAMPLE DELIVERY GROUP

12B189

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
21-Feb-2012	TB-022112	B189-08	TB	5030B	8015B GRO	IV
21-Feb-2012	SL-188-SA7-SB-19.0	B189-03	N	5035	8015B GRO	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	3550B	8015B EFH	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	3550B	8082	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	3550B	8270C	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	3550B	8270C SIM	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	7471A	7471A	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	300.0	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	314.0	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	6020	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	7199	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	8015B	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	8015M	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04	N	GEN PREP	9045D	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	B189-04R	N	GEN PREP	7199	IV
21-Feb-2012	SL-188-SA7-SB-22.5	B189-05	N	5035	8015B GRO	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	3550B	8082	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	3550B	8270C	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	3550B	8270C SIM	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	7471A	7471A	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	300.0	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	314.0	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	6020	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	6850	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	7199	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	8015B	IV

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
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	8015M	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06	N	GEN PREP	9045D	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06R	N	GEN PREP	7199	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	B189-06W	N	3550B	8015B EFH	IV
21-Feb-2012	SL-186-SA7-SB-27.5	B189-01	N	5035	8015B GRO	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	3550B	8082	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	3550B	8270C	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	3550B	8270C SIM	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	7471A	7471A	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	300.0	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	314.0	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	6020	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	7199	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	8015B	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	8015M	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02	N	GEN PREP	9045D	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02R	N	GEN PREP	7199	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	B189-02W	N	3550B	8015B EFH	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	3550B	8082	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	3550B	8270C	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	3550B	8270C SIM	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	5035	8015B GRO	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	7471A	7471A	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	300.0	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	314.0	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	6020	IV

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
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	6850	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	7199	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	8015B	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	8015M	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07	FD	GEN PREP	9045D	IV
21-Feb-2012	DUP10-SA7-QC-022112DUP	B189-07D	DUP	GEN PREP	9045D	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07R	FD	GEN PREP	7199	IV
21-Feb-2012	DUP10-SA7-QC-022112	B189-07W	FD	3550B	8015B EFH	IV

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: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.55	J	0.814	MDL	1.63	PQL	MG/KG	J	Z

Sample ID: SL-186-SA7-SB-27.0-28.0 *Collected:* 2/21/2012 4:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.41	J	0.811	MDL	1.62	PQL	MG/KG	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *Analysis Type:* RES/TOT *Dilution:* 0.917

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8010		11.9	MDL	23.9	PQL	MG/KG	J	Q
ANTIMONY	0.110	J	0.0996	MDL	0.199	PQL	MG/KG	J	Z, Q
BARIUM	57.9		0.199	MDL	0.398	PQL	MG/KG	J	Q
BORON	4.98	U	2.49	MDL	4.98	PQL	MG/KG	UJ	E
CADMIUM	0.0820	J	0.0498	MDL	0.0996	PQL	MG/KG	J	Z
CALCIUM	1890		9.96	MDL	19.9	PQL	MG/KG	J	Q
LEAD	3.20		0.0996	MDL	0.199	PQL	MG/KG	J	Q, Q, E
VANADIUM	21.1		0.0498	MDL	0.0996	PQL	MG/KG	J	Q

Sample ID: SL-186-SA7-SB-27.0-28.0 *Collected:* 2/21/2012 4:23:00 *Analysis Type:* RES/TOT *Dilution:* 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8510		12.7	MDL	25.3	PQL	MG/KG	J	Q
ANTIMONY	0.116	J	0.106	MDL	0.211	PQL	MG/KG	J	Z, Q
BARIUM	63.3		0.211	MDL	0.422	PQL	MG/KG	J	Q
BORON	5.28	U	2.64	MDL	5.28	PQL	MG/KG	UJ	E
CADMIUM	0.0935	J	0.0528	MDL	0.106	PQL	MG/KG	J	Z
CALCIUM	2060		10.6	MDL	21.1	PQL	MG/KG	J	Q
LEAD	3.44		0.106	MDL	0.211	PQL	MG/KG	J	Q, Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-186-SA7-SB-27.0-28.0 *Collected:* 2/21/2012 4:23:00 *Analysis Type:* RES/TOT *Dilution:* 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	22.3		0.0528	MDL	0.106	PQL	MG/KG	J	Q

Sample ID: SL-188-SA7-SB-18.5-19.5 *Collected:* 2/21/2012 9:00:00 *Analysis Type:* RES/TOT *Dilution:* 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9790		12.5	MDL	25.0	PQL	MG/KG	J	Q
ANTIMONY	0.127	J	0.104	MDL	0.208	PQL	MG/KG	J	Z, Q
BARIUM	70.7		0.208	MDL	0.417	PQL	MG/KG	J	Q
BORON	5.21	U	2.60	MDL	5.21	PQL	MG/KG	UJ	E
CALCIUM	3110		10.4	MDL	20.8	PQL	MG/KG	J	Q
LEAD	4.55		0.104	MDL	0.208	PQL	MG/KG	J	Q, Q, E
VANADIUM	26.1		0.0521	MDL	0.104	PQL	MG/KG	J	Q

Sample ID: SL-188-SA7-SB-22.0-23.0 *Collected:* 2/21/2012 10:32:00 *Analysis Type:* RES/TOT *Dilution:* 0.905

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8560		11.3	MDL	22.6	PQL	MG/KG	J	Q
ANTIMONY	0.172	J	0.0940	MDL	0.188	PQL	MG/KG	J	Z, Q
BARIUM	68.1		0.188	MDL	0.376	PQL	MG/KG	J	Q
BORON	4.70	U	2.35	MDL	4.70	PQL	MG/KG	UJ	E
CALCIUM	2290		9.40	MDL	18.8	PQL	MG/KG	J	Q
LEAD	4.68		0.0940	MDL	0.188	PQL	MG/KG	J	Q, Q, E
SELENIUM	0.216	J	0.188	MDL	0.376	PQL	MG/KG	J	Z
VANADIUM	27.5		0.0470	MDL	0.0940	PQL	MG/KG	J	Q

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	0.65	J	0.54	MDL	1.1	PQL	MG/KG	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.56	J	0.54	MDL	1.1	PQL	MG/KG	J	Z
TOTAL EFH(C8-C40)	1.2		0.54	MDL	1.1	PQL	MG/KG	J	FD

Sample ID: SL-186-SA7-SB-27.0-28.0 *Collected:* 2/21/2012 4:23:00 *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)	1.1	U	0.54	MDL	1.1	PQL	MG/KG	UJ	FD
EFH(C8-C11)	0.65	J	0.54	MDL	1.1	PQL	MG/KG	J	Z
TOTAL EFH(C8-C40)	0.65	J	0.54	MDL	1.1	PQL	MG/KG	J	Z, FD

Sample ID: SL-188-SA7-SB-18.5-19.5 *Collected:* 2/21/2012 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
EFH(C8-C11)	0.54	J	0.53	MDL	1.1	PQL	MG/KG	J	Z

Sample ID: SL-188-SA7-SB-22.0-23.0 *Collected:* 2/21/2012 10:32:00 *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)	0.94	J	0.52	MDL	1.0	PQL	MG/KG	J	Z
EFH(C8-C11)	0.66	J	0.52	MDL	1.0	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.8	U	0.92	MDL	1.8	PQL	UG/KG	UJ	FD
BENZO(K)FLUORANTHENE	1.8	U	0.92	MDL	1.8	PQL	UG/KG	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	9.1	MDL	18	PQL	UG/KG	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method Category: **SVOA**

Method: **8270C SIM** ***Matrix:*** **SO**

Sample ID: **SL-186-SA7-SB-27.0-28.0** ***Collected:*** **2/21/2012 4:23:00** ***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	0.94	J	0.92	MDL	1.8	PQL	UG/KG	J	Z, FD
BENZO(K)FLUORANTHENE	1.0	J	0.92	MDL	1.8	PQL	UG/KG	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	9.1	MDL	18	PQL	UG/KG	J	Z, FD

Sample ID: **SL-188-SA7-SB-18.5-19.5** ***Collected:*** **2/21/2012 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	1.4	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BENZO(A)PYRENE	1.5	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
CHRYSENE	1.5	J	0.91	MDL	1.8	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Reason Code Legend

Reason Code	*Description*
E	Matrix Spike Precision
FD	Field Duplicate Precision
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: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B189

Reporting Limit Outliers

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA7-QC-022112	Nitrate-NO3	J	1.55	1.63	PQL	MG/KG	J (all detects)
SL-186-SA7-SB-27.0-28.0	Nitrate-NO3	J	1.41	1.62	PQL	MG/KG	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA7-QC-022112	ANTIMONY	J	0.110	0.199	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.0820	0.0996	PQL	MG/KG	
SL-186-SA7-SB-27.0-28.0	ANTIMONY	J	0.116	0.211	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.0935	0.106	PQL	MG/KG	
SL-188-SA7-SB-18.5-19.5	ANTIMONY	J	0.127	0.208	PQL	MG/KG	J (all detects)
SL-188-SA7-SB-22.0-23.0	ANTIMONY	J	0.172	0.188	PQL	MG/KG	J (all detects)
	SELENIUM	J	0.216	0.376	PQL	MG/KG	

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA7-QC-022112	EFH(C21-C30)	J	0.65	1.1	PQL	MG/KG	J (all detects)
	EFH(C8-C11)	J	0.56	1.1	PQL	MG/KG	
SL-186-SA7-SB-27.0-28.0	EFH(C8-C11)	J	0.65	1.1	PQL	MG/KG	J (all detects)
	TOTAL EFH(C8-C40)	J	0.65	1.1	PQL	MG/KG	
SL-188-SA7-SB-18.5-19.5	EFH(C8-C11)	J	0.54	1.1	PQL	MG/KG	J (all detects)
SL-188-SA7-SB-22.0-23.0	EFH(C21-C30)	J	0.94	1.0	PQL	MG/KG	J (all detects)
	EFH(C8-C11)	J	0.66	1.0	PQL	MG/KG	

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-186-SA7-SB-27.0-28.0	BENZO(B)FLUORANTHENE	J	0.94	1.8	PQL	UG/KG	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.0	1.8	PQL	UG/KG	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	18	PQL	UG/KG	
SL-188-SA7-SB-18.5-19.5	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	UG/KG	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.8	PQL	UG/KG	
	BENZO(G,H,I)PERYLENE	J	1.6	1.8	PQL	UG/KG	
	BENZO(K)FLUORANTHENE	J	1.0	1.8	PQL	UG/KG	
	CHRYSENE	J	1.5	1.8	PQL	UG/KG	

Field Duplicate RPD Report

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 300.0
Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
FLUORIDE	4.33	4.58	6	50.00	No Qualifiers Applied
Nitrate-NO3	1.41	1.55	9	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0 (TOT)	DUP10-SA7-QC-022112 (TOT)			
ALUMINUM	8510	8010	6	50.00	
ANTIMONY	0.116	0.110	5	50.00	
ARSENIC	3.95	3.86	2	50.00	
BARIUM	63.3	57.9	9	50.00	
BERYLLIUM	0.398	0.364	9	50.00	
CADMIUM	0.0935	0.0820	13	50.00	
CALCIUM	2060	1890	9	50.00	
CHROMIUM	11.3	11.4	1	50.00	
COBALT	3.27	3.02	8	50.00	
COPPER	4.73	4.63	2	50.00	
IRON	17500	15800	10	50.00	
LEAD	3.44	3.20	7	50.00	
LITHIUM	20.2	18.1	11	50.00	No Qualifiers Applied
MAGNESIUM	3410	3120	9	50.00	
MANGANESE	224	213	5	50.00	
MOLYBDENUM	0.770	0.733	5	50.00	
NICKEL	6.66	6.58	1	50.00	
PHOSPHORUS	363	323	12	50.00	
POTASSIUM	2670	2450	9	50.00	
SODIUM	250	254	2	50.00	
STRONTIUM	9.75	9.04	8	50.00	
THALLIUM	0.306	0.282	8	50.00	
TITANIUM	905	826	9	50.00	
VANADIUM	22.3	21.1	6	50.00	
ZINC	52.2	47.1	10	50.00	

Method: 8015B EFH
Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
EFH(C8-C11)	0.65	0.56	15	50.00	No Qualifiers Applied
EFH(C21-C30)	1.1 U	0.65	200	50.00	J(all detects)
TOTAL EFH(C8-C40)	0.65	1.2	59	50.00	UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (UG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
BENZO(B)FLUORANTHENE	0.94	1.8 U	200	50.00	J(all detects)
BENZO(K)FLUORANTHENE	1.0	1.8 U	200	50.00	UJ(all non-detects)
BIS(2-ETHYLHEXYL)PHTHALATE	11	18 U	200	50.00	

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Field Duplicate RPD Report

Lab Reporting Batch ID: 12B189 **Laboratory: EMXT**

EDD Filename: 12B189 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 9045D
Matrix: SO

Analyte	Concentration (PH UNIT)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
PH	8.11	8.14	0		No Qualifiers Applied

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8270C for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No semivolatile 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H2a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12

SDG #: 12B189 Level IV Page: 1 of 1

Laboratory: EMAX Laboratories, Inc. Reviewer: EJ

2nd Reviewer: W

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

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: 2/21/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30, r^2
IV.	Continuing calibration/ICV	A	ICW/CCV ≤ ST
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
VIII.	Laboratory control samples	A	LCS/P
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 1,4
XVII.	Field blanks	ND	FB = FB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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	

LDC #: 27992H2a

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992H2a

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓		✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓		✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓		✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XVII. Field blanks				
Field blanks were identified in this SDG.	✓	✓		
Target compounds were detected in the field blanks.		✓	✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27992H2a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4AX	01/25/12	Phenol (1st internal standard)	1.328	1.328	1.300	1.300	1.82	1.82
			Naphthalene (2nd internal standard)	1.043	1.043	1.028	1.028	1.92	1.92
			Fluorene (3rd internal standard)	1.406	1.406	1.404	1.404	2.66	2.66
			Pentachlorophenol (4th internal standard)	0.165	0.165	0.161	0.161	8.70	8.70
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.762	0.762	0.733	0.733	7.63	7.63
			Benzo(a)pyrene (6th internal standard)	1.134	1.134	1.103	1.103	3.48	3.48
2	SVE4AXA	1/25/12	~~Benzaldehyde~~ Phenol (1st internal standard)	(40)	(40)				
			~~Benzidine~~ Naphthalene (2nd internal standard)	0.866	0.866	0.783	0.783	13.68	13.68
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992H2a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBJ189	2/27/12	Phenol (1st internal standard)	1.300	1.288	1.288	0.9	0.9
			Naphthalene (2nd internal standard)	1.028	0.993	0.993	3.4	3.4
			Fluorene (3rd internal standard)	1.404	1.339	1.339	4.6	4.6
			Pentachlorophenol (4th internal standard)	0.161	0.162	0.162	0.6	0.6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.438	0.468	0.468	6.8	6.8
			Benzo(a)pyrene (6th internal standard)	1.103	1.066	1.066	3.4	3.4
2	RBJ190	2/27/12	Benzidine Phenol (1st internal standard)	0.783	0.799	0.799	2.0	2.0
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992#29

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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: #3

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10.0	7.24	72.4	72.4	0
2-Fluorobiphenyl	10.0	8.23	82.3	82.3	
Terphenyl-d14	10.0	9.65	96.5	96.5	
Phenol-d5	30	22.66	75.5	75.5	
2-Fluorophenol	↓	22.65	75.5	75.5	
2,4,6-Tribromophenol	↓	26.34	87.8	87.8	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992 #2s

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: lcs 10

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	667	667	522	508	78	78	76	76	3	3
N-Nitroso-di-n-propylamine			510	518	77	77	78	78	1	1
4-Chloro-3-methylphenol			529	534	79	79	80	80	1	1
Acenaphthene			540	535	81	81	80	80	1	1
Pentachlorophenol			516	537	77	77	81	81	4	4
Pyrene	↓	↓	582	580	87	87	87	87	0	0

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992H29

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , _____:

Conc. = ( )( )( )( )( )
( )( )( )( )( )

=

ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

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/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No semivolatile 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
Benzo(b)fluoranthene	0.94	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(k)fluoranthene	1.0	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Bis(2-ethylhexyl)phthalate	11	18U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
12B189	SL-186-SA7-SB-27.0-28.0 DUP10-SA7-QC-022112	Benzo(b)fluoranthene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H2b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: T
2nd Reviewer: V

METHOD: GC/MS Polynuclear ~~Aromatic Hydrocarbons~~ SVOA (EPA SW 846 Method 8270C-SIM)

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: 2/21/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 1,4
XVII.	Field blanks	ND	TB = EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11	MBLK1S	21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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	

LDC #: 27992#26

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer: V

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992H2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: VC

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓	+		
Target compounds were detected in the field blanks.		✓	+	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27992#2b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: ✓

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds identified in the field duplicate pairs?

Compound	Concentration (ug/kg)		RPD (FD)
	1	4	
GGG	0.94	1.8U	200 J/UJ/A
HHH	1.0	1.8U	↓ ↓
EEE	11	18U	

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 27972H26

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound, C_x = Concentration of compound, S = Standard deviation of the RRFs,
A_{is} = Area of associated internal standard, C_{is} = Concentration of internal standard, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	SVE4A25S	01/25/12	~~Phenol (1st internal standard)~~	-					
			Naphthalene (2nd internal standard)	3.606	3.606	3.773	3.773	8.47	8.47
			~~Fluorene~~ Anthracene (3rd internal standard)	1.175	1.175	1.146	1.146	3.14	3.14
			Pentachlorophenol (4th internal standard) Benzo(g,h,i)perylene	1.115	1.115	0.991	0.991	13.16	13.16
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~						
			~~Benzo(a)pyrene (6th internal standard)~~						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992H2b
SDG #: ~~[illegible]~~

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	RBJ189	2/27/12	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	3.773	3.439	3.439	8.9	8.9
			~~Fluorene~~ Anthracene (3rd internal standard)	1.146	1.101	1.101	3.9	3.9
			~~Pentachlorophenol (4th~~ Benzo(g) perylene internal standard)	0.991	1.058	1.058	6.8	6.8
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~					
			~~Benzo(a)pyrene (6th internal standard)~~					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992H2b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10.0	7.52	75.2	75.2	0
2-Fluorobiphenyl	↓	7.08	70.8	70.8	↓
Terphenyl-d14	↓	9.05	90.5	90.5	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992 H2b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: las 10

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	5									
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	333	333	276	284	83	83	85	85	3	3
Pentachlorophenol										
Pyrene	↓	↓	284	304	85	85	91	91	7	7

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992h0b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example: 1/30.01

Sample I.D. #1, Benzo(k) fluoranthene

Conc. = $\frac{(1116)(40)(1)(1000)(\quad)}{(1428615)(1.104)(30.01)(0.925*)(\quad)}$

= 1.019 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8082 for Polychlorinated Biphenyls.

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 multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The 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 difference (%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.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No polychlorinated biphenyl 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) 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 and Reported RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	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

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H3b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

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: 2/21/12
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	%D ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
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	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	ND	D = 1,4
XVI.	Field blanks	ND	EB = EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27992H3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: RT
2nd Reviewer: [illegible]

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 #: 27992 H3b
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: V

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.	✓			
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 #: 27992H3b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: F7
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (20 std)	Recalculated CF (20 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/4/12	PCB 1260-1 7B-1	3150.75	3150.75	3556.357	3556.357	13.5	13.5
			7B-2	11274	11274	12028.8	12028.8	18.5	18.5
2									
3									
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 #: 27992H35
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

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
CF = A/C

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 13:55	2/24/12	PCB-1260 ZB1	500	577.225	577.225	15	15
			↓ ZB2	500	437.918	437.918	12	12
2	ccv 2:56	2/25/12	↓	500	562.730	562.730	13	13
				500	422.402	422.402	16	16
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 #: 27972#36
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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: #4

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
DCB	ZB-1	40	42.93	107	107	0
TCMX	〃	40	42.31	106	106	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 #: 27992 #36
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: [illegible]

METHOD: (**__ GC __HPLC**

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: les ID

Compound	Spike Added (ug/kg)		Spiked 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)										
Aroclor 1260	66.7	66.7	73.9	73.5	111	111	110	110	1	1

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 #: 27992H35
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 Methods 6020A and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

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 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. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks.

Sample EB-SA5C-SB-022212 (from SDG 12B201) was identified as an equipment blank. No metal contaminants were found.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

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)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-187-SA7-SB-27.5-28.5 (All samples in SDG 12B189)	Aluminum	52 (75-125)	50 (75-125)	-	J (all detects) UJ (all non-detects)	A
	Antimony	74 (75-125)	-	-		
	Barium	59 (75-125)	69 (75-125)	-		
	Boron	-	-	40 (≤20)		
	Calcium	58 (75-125)	-	-		
	Lead	18 (75-125)	697 (75-125)	119 (≤20)		
	Vanadium	68 (75-125)	-	-		

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-187-SA7-SB-27.5-28.5 (All samples in SDG 12B189)	Boron	-	215 (75-125)	-	J (all detects)	A

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B189	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
Aluminum	8510	8010	6 (≤50)	-	-
Antimony	0.116	0.110	5 (≤50)	-	-
Arsenic	3.95	3.86	2 (≤50)	-	-
Barium	63.3	57.9	9 (≤50)	-	-
Beryllium	0.398	0.364	9 (≤50)	-	-
Cadmium	0.0935	0.0820	13 (≤50)	-	-
Calcium	2060	1890	9 (≤50)	-	-
Chromium	11.3	11.4	1 (≤50)	-	-
Cobalt	3.27	3.02	8 (≤50)	-	-
Copper	4.73	4.63	2 (≤50)	-	-
Iron	17500	15800	10 (≤50)	-	-
Lead	3.44	3.20	7 (≤50)	-	-
Magnesium	3410	3120	9 (≤50)	-	-
Manganese	224	213	5 (≤50)	-	-
Molybdenum	0.770	0.733	5 (≤50)	-	-
Nickel	6.66	6.58	1 (≤50)	-	-
Potassium	2670	2450	9 (≤50)	-	-
Sodium	250	254	2 (≤50)	-	-
Strontium	9.75	9.04	8 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
Thallium	0.306	0.282	8 (≤50)	-	-
Titanium	905	826	9 (≤50)	-	-
Vanadium	22.3	21.1	6 (≤50)	-	-
Zinc	52.2	47.1	10 (≤50)	-	-
Lithium	20.2	18.1	11 (≤50)	-	-
Phosphorus	363	323	12 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG 12B189

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	Aluminum Antimony Barium Calcium Vanadium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	Boron	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD)(E)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	Boron	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	Lead	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q,E)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H4
SDG #: 12B189
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 7/20/12
Page: 1 of 1
Reviewer: AL
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020A/~~7000~~ 7471A)

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: 2/21/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS/D (SDG: 12B201)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(1, 4)
XV	Field Blanks	ND	EB = EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27614H4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer: [illegible]

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. 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.		✓		
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike 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 +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.		✓		
VII. 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% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
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 analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 27992/4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: ✓

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-4	Soil	Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
ICP-MS		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

Comments: Mercury by CVAA if performed

LDC #: 27992H4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: CR
2nd Reviewer: LA

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% ~~for water samples and ≤35% for~~ soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	SL-187-SA7-SB-27,5-28,5		Al	52	50		All	J/UJ/A (Q)
	C12F201		Sb	74				
			Ba	59	69			
			B		215			J det/A
			Be			40		J/UJ/A (E)
			Ca	58				(Q)
			Pb	18	~~697~~	119		(Q, E) (PS = 75.7)
			V	68				(Q)

Comments: _____

MSD.4SW

LDC#: 27992H4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 2
Reviewer: CA
2nd Reviewer: V

METHOD: Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers (Parents Only)
	1	4		
Aluminum	8510	8010	6	
Antimony	0.116	0.110	5	
Arsenic	3.95	3.86	2	
Barium	63.3	57.9	9	
Beryllium	0.398	0.364	9	
Cadmium	0.0935	0.0820	13	
Calcium	2060	1890	9	
Chromium	11.3	11.4	1	
Cobalt	3.27	3.02	8	
Copper	4.73	4.63	2	
Iron	17500	15800	10	
Lead	3.44	3.20	7	
Magnesium	3410	3120	9	
Manganese	224	213	5	
Molybdenum	0.770	0.733	5	
Nickel	6.66	6.58	1	
Potassium	2670	2450	9	
Sodium	250	254	2	
Strontium	9.75	9.04	8	

LDC#: 27992H4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CR
2nd Reviewer: [signature]

METHOD: Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers (Parents Only)
	1	4		
Thallium	0.306	0.282	8	
Titanium	905	826	9	
Vanadium	22.3	21.1	6	
Zinc	52.2	47.1	10	
Lithium	20.2	18.1	11	
Phosphorus	363	323	12	

LDC #: 27992H4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and 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 (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
	ICP (Initial calibration)						
ICV	ICP/MS (Initial calibration)	Cr	30.50	30	102	107	Y
ICV	CVAA (Initial calibration)	Hg	2.11	2	106	-	
	ICP (Continuing calibration)						
CCV1	ICP/MS (Continuing calibration)	Pb	25.69	25	103	103	
CCV	CVAA (Continuing calibration)	Hg	5.2	5	104	-	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

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 #: 27972H4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, 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

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	V	19,44	20	97	97	Y
LCS	Laboratory control sample	Co	24,6	25	98	98	
SL-187SA7-SB-27,5-28,5	Matrix spike	Sn	(SSR-SR) 26,9	24,3	111	111	
	Duplicate	Li	39,4	40,5	3	3	
	ICP serial dilution	P	401	385	4	4	

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.

LDC #: 27992H4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CR
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

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 and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Cd were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{100mL(10)(0.1773mg/L)}{0.925(2.05g)(1000)} = 0.0935mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	8510	8510	Y
		Sb	0.116	0.116	
		As	3.95	3.95	
		Ba	63.3	63.6	
		Be	0.398	0.398	
		Cd	0.0935	0.0935	
		Ca	2060	2060	
		Cr	11.3	11.3	
		Co	3.27	3.27	
		Cu	4.73	4.73	
		Fe	17500	17500	
		Pb	3.44	3.44	
		Mg	3410	3410	
		Mn	224	224	
		Mo	0.770	0.770	
		Ni	6.66	6.66	
		K	2670	2670	
		Na	~~4.75~~ 250	250	
		Sr	9.75	9.75	
		Tl	0.306	0.306	
		Ti	905	905	
		V	22.3	22.3	
		Zn	52.2	52.2	
		Li	20.2	20.2	
		P	363	363	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 20, 2012

Matrix: Soil

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Nitrate, Nitrite, and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, and EPA Method 314.0 for Perchlorate.

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 of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No contaminant concentrations were found.

V. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicates

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12B189	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
Fluoride	4.33	4.58	6 (≤50)	-	-
Nitrate	1.41	1.55	9 (≤50)	-	-

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG 12B189

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H6 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-20-12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: CR
2nd Reviewer: W

METHOD: (Analyte Nitrate-~~N~~, Nitrite-~~N~~, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), Perchlorate (EPA Method 314.0)

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: 2/21/12
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	N	CS
V	Duplicates	N	↓
VI.	Laboratory control samples	A	LCS/P
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(1,4)
X.	Field blanks	ND	EB=EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27902H6

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: QR
2nd Reviewer: W

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?			✓	

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 #: 27992H6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: V

All circled methods are applicable to each sample.

Sample ID	Parameter
1-4	pH TDS Cl (F) (NO_3) (NO_2) SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ (ClO_4)
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments:

LDC# 27997H6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: AL
2nd Reviewer: LV

Inorganics: Method See Cover

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers: (Parents Only)
	1	4		
Fluoride	4.33	4.58	6	
Nitrate	1.41	1.55	9	

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LDC #: 27997A6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: CR
2nd Reviewer: [illegible]

Method: Inorganics, Method See core

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 2/23/12

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	F	s1	0.05	1.202	*0.999897*	0.999895	Y
		s2	0.1	2.425			
		s3	0.2	5.098			
		s4	0.5	13.35			
		s5	1	28.85			
		s6	2	58.86			
		s7	5	147.3			
		s8	10	287			
Calibration verification	NO_3	ICV	~~0.951~~	0.986	98.6	98.6	
Calibration verification	ClO_4	CCV	30	29.542	98.5	98.5	
Calibration verification	Cr^{6+}	↓	2	1.906	95	95	↓

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 #: 27927K

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: 9R
2nd Reviewer: 1

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 = Found / True x 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 = |S-D| / (S+D)/2 x 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	Cr6+	194	236	82	82	Y
	Matrix spike sample		(SSR-SR)				
	Duplicate sample						

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.

LDC #: 27497#6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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 NO_3 reported with a positive detect were recalculated and verified using the following equation:

Concentration = $0.0223055(Area)+0.0497864$

Recalculation: $\frac{60mL(0.0223055(2.178)+0.0497864)}{20.0032g(0.925)} = 1.41\ mg/L$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
	1	F	4.33	4.33	Y
		NO_3	1.41	1.41	Y

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	February 21, 2012
LDC Report Date:	July 26, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	EMAX Laboratories, Inc.
Sample Delivery Group (SDG):	12B189

Sample Identification

SL-186-SA7-SB-27.5
SL-188-SA7-SB-19.0
SL-188-SA7-SB-22.5
DUP10-SA7-QC-022112
TB-022112

Introduction

This data review covers 4 soil samples and 1 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-022112 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-022212	2/2/12	Gasoline range organics	23 ug/L	SL-186-SA7-SB-27.5 SL-188-SA7-SB-19.0 SL-188-SA7-SB-22.5 DUP10-SA7-QC-022112

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	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-186-SA7-SB-27.5 and DUP10-SA7-QC-022112 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.5 SL-188-SA7-SB-19.0 SL-188-SA7-SB-22.5 DUP10-SA7-QC-022112 TB-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H7 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: T
2nd Reviewer: V

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

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: 2/21/12
II	Initial calibration	A	
III.	Calibration verification/ICV	A	
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	LCS 1
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 = 1,4
XIII.	Field blanks	SW	TB = 5, EB = EB-SA7-SB-022212 (SW 1-TB20 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: soil + water

1	SL-186-SA7-SB-27.5	11	MBLK1	21		31	
2	SL-188-SA7-SB-19.0	12	MBLK1W	22		32	
3	SL-188-SA7-SB-22.5	13		23		33	
4	DUP10-SA7-QC-022112	14		24		34	
5	TB-022112	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 #: 27992H7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FJ
2nd Reviewer: V

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 #: 27992H7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: EJ
2nd Reviewer:

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.	✓			
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 #: 27947

SDG #: All core

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: 5

2nd Reviewer: L

EB = EB-SA7-SB-02222/12

METHOD: GC HPLC

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L Associated sample units: ~~ug/L~~ mg/kg

Sampling date: 02/2/12

Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank Associated Samples: ~~1~~ 1-4 (ND)

Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: EB

Compound	Blank ID	Blank ID	Sample Identification							
Gasoline Range Organics	23ug/l									
CRQL										

Blank units: _____ Associated sample units: _____

Sampling date: _____

Field blank type: (circle one) Field Blank / Trip Blank/ Atmospheric Blank/ Ambient Blank Associated Samples: _____

Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: _____

Compound	Blank ID	Blank ID	Sample Identification							
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 27992 #7
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (VOA std)	Recalculated CF (VOA std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	1/25/12	GRO (C_5 - C_{12})	16866	16866	17064.3	17064.3	3.2	3.2
2									
3									
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 #: 27992H7
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: W

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
CF = A/C

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 01:02	2/22/12	GRO (C5-C12)	1000	920.62	920.62	8	8
2	CCV 8:41	2/22/12	↓	↓	901.91	901.91	10	10
3	CCV 18:52	2/23/12	↓	100	923.26	923.26	8	8
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 #: 27992#7
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

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	
4BFB	NS	40	32.53	81.3	81.3	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 #: 27992H7
SDG #: all covers

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID 3021L

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Gasoline Range Organics	25	25	25.7	24.9	103	103	100	100	3	3

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 #: 27992H7
SDG #: mu [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
EFH (C8-C11)	0.65	0.56	15 (≤50)	-	-
Total EFH (C8-C40)	0.65	1.2	59 (≤50)	J (all detects)	A
EFH (C21-C30)	1.1U	0.65	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
12B189	SL-186-SA7-SB-27.0-28.0 DUP10-SA7-QC-022112	Total EFH (C8-C40)	J (all detects)	A	Field duplicates (RPD)(FD)
12B189	SL-186-SA7-SB-27.0-28.0 DUP10-SA7-QC-022112	EFH (C21-C30)	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD)(FD)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H8 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: D
2nd Reviewer:

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

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: 2/21/12
II	Initial calibration	A	%D ≤ 30
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/D
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	SW	D = 1, 4
XIII.	Field blanks	ND	TB = EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11	MBLK1S	21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27992H8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: PJ
2nd Reviewer: [illegible]

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 #: 27992H8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: LW

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.	✓			
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 #: 27992HS

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: ___ GC ___ HPLC

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

(FD)

Compound	Concentration (mg/kg)		%RPD Limit 50	Qualification Parent only / All Samples
	1	4		
EFH (C8-C11)	0.65	0.56	15	-
Total EFH (C8-C40)	0.65	1.2	59	J/A det
EFH (C21-C30)	1.14	0.65	200	J/UJ/A

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 27992 H8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC_____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (SS_{std})	Recalculated CF (SS_{std})	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/01/12	EFH (C8 - C41)	25640	25640	23084.1	23084.1	10.8	10.8
2									
3									
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 #: 27992#8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F
2nd Reviewer:

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
CF = A/C

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 14:46	2/23/12	Total EFH (C8-C40)	500.0	563.93	563.93	13	13
2	CCV 18:09	2/23/12	↓	↓	499.92	499.92	U	U
	CCV 21:31	2/23/12	↓	↓	485.00	485.00	3	3
3								
	CCV 13:46	2/24/12	↓	↓	513.52	513.52	3	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 #: 27992#3
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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	
Bromobenzene	NJ	100	64.56	64.6	64.6	0
Hexacosane	↓	25	22.370	89.5	89.5	↓

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 #: 27990H8
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 1 & 10

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Total EFH (C8-C40)	50.0	50.0	45.0	53.7	90	90	107	107	18	18

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 #: 27992H8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

3/30.1

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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 EFH (C8-C11)

Concentration = $\frac{138457 \quad (3)}{23084.0647 \quad (30.1)(0.925)}$

0.65 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8015B for Alcohols.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohols were found in the method blanks.

Sample EB-SA7-SB-022212 (from SDG 12B201) was identified as an equipment blank. No alcohols were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No alcohols were detected in any of the samples.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H43 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Alcohol (EPA SW 846 Method 8015B)

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: 2/21/12
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	N	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/LD
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 = 1,4
XIII.	Field blanks	ND	EB = EB-SA7-SB-022212 (12B201)

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-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27992H43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: V

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 #: 27992H43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: V

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.	✓	✗		
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 #: 27992H43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (10 std)	Recalculated CF (10 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	8/29/11	Ethanol	13619	13619	13407.9	13407.9	12.5	12.5
2									
3									
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 #: 27992#43
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: LC

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
CF = A/C

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	BB72004A	2/22/12	ethanol	10.0	9.18	9.18	8	8
	- 18A	2/22/12	↓	↓	9.12	9.12	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 #: 27992H43
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 10

Compound	Spike Added (ug/Kg)		Spiked 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)										
Ethanol	10000 U	10000 U	9670	9800	97	97	98	98	1	1

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 #: 27992#43
SDG #: #1 soil

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 =_____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

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 8015B for Glycols.

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 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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification 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.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

Sample EB-SA7-SB-022217 (from SDG 12B201) was identified as an equipment blank. No glycol contaminants were found.

V. Surrogate Recovery

Surrogates were not required by the method.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No glycols were detected in any of the samples.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-186-SA7-SB-27.0-28.0 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H45 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/25/12
SDG #: 12B189 Level IV Page: 1 of
Laboratory: EMAX Laboratories Inc. Reviewer: F
2nd Reviewer:

METHOD: GC Glycols (EPA SW 846 Method 8015B)

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: 2/21/12
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	N	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	LCS/D
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 = 1,4
XIII.	Field blanks	ND	TB = EB-SA7-SB-022212 (12B201)

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:
SO 12

1	SL-186-SA7-SB-27.0-28.0	11		21		31	
2	SL-188-SA7-SB-18.5-19.5	12		22		32	
3	SL-188-SA7-SB-22.0-23.0	13		23		33	
4	DUP10-SA7-QC-022112	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 #: 27992H45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

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 #: 27992H45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: V

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.	✓			
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 #: 27992MT
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC_____HPLC_____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (50 std)	Recalculated CF (50 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/22/11	Methylene Glycol	4463.26	4463.26	4218.21	4218.21	9.8	9.8
2									
3									
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 #: 27992H45
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
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
CF = A/C

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 9:19	2/24/12	diethylene Glycol	50.0	45.59	45.59	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 #: 27992H45
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F2
2nd Reviewer: L

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
Diethylene Glyco	50.0	50.0	43.3	43.5	87	87	87	87	0	0

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 #: 27992H45
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 = _____

MP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21, 2012

LDC Report Date: July 26, 2012

Matrix: Soil

Parameters: Perchlorate

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12B189

Sample Identification

SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 for Perchlorate.

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. LC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

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 .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the limit of detection verification (LODV) calibration standard were less than or equal to 50.0% for perchlorate.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No perchlorate was found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogate spikes were not required by the method.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12B189	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Perchlorate - Data Qualification Summary - SDG 12B189

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12B189	SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Perchlorate - Laboratory Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Perchlorate - Field Blank Data Qualification Summary - SDG 12B189

No Sample Data Qualified in this SDG

LDC #: 27992H87 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12
SDG #: 12B189 Level IV Page: 1 of 1
Laboratory: EMAX Laboratories, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: LC/MS Perchlorate (EPA SW846 Method 6850)

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: 2/21/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 15/50 LODV ≤ 50
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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-188-SA7-SB-22.0-23.0	11		21		31	
2	DUP10-SA7-QC-022112	12		22		32	
3		13		23		33	
4		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	

LDC #: 27992H87

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer: [illegible]

6850

Method: Semivolatiles (EPA SW 846 Method ~~8270C~~)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?			✓	
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Were all percent differences (%D) ~~≤ 25%~~ 15/50 and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?			✓	
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992H87

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
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. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC # 27992H87

~~SDG#~~

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 15

2nd Reviewer:

METHOD: 6850.00

Parameter: perchlorate

weighted

Date	Instrument	Compound	Y	X	
03/02/2012	NS	perchlorate	0.09050	0.05	
			0.16323	0.10	
			0.37489	0.25	
			0.77283	0.50	
			1.48528	1.00	
			3.63370	2.50	
			7.24902	5.00	
			14.43676	10.00	

Regression Output:	Regression Output:	Reported	
Constant	0.03038		
Std Err of Y Est	0.01511		
R Squared	0.99999		0.99990
No. of Observations	8.00000		
Degrees of Freedom	6.00000		
X Coefficient(s)	1.441E+000		
Std Err of Coef.	0.001634	0.00	

LDC #: 27992H87

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method ~~8270C~~) 6850

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %R	Recalculated %R
1	aeV 15:22	3/2/12	~~Phenol (1st internal standard)~~ Perchlorate	2.0	1.947		97	97
			~~Naphthalene (2nd internal standard)~~					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992#87

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ Method 6850

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ Perchlorate	25.0	25.0	25.7	26.9	103	103	108	108	5	5
~~N-Nitroso-di-n-propylamine~~										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
~~Pyrene~~										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992H87

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 6850

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}$

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

12B201

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
22-Feb-2012	TB-022212	B201-04	TB	5030B	8015B GRO	III
22-Feb-2012	SL-187-SA7-SB-28.0	B201-02	N	5035	8015B GRO	III
22-Feb-2012	SL-187-SA7-SB-28.0MS	B201-02M	MS	5035	8015B GRO	III
22-Feb-2012	SL-187-SA7-SB-28.0MSD	B201-02S	MSD	5035	8015B GRO	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	3550B	8082	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	3550B	8270C	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	3550B	8270C SIM	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	7471A	7471A	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	300.0	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	314.0	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	7199	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	8015B	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	8015M	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03	N	GEN PREP	9045D	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5DU	B201-03D	DUP	GEN PREP	9045D	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03G	MS	GEN PREP	7199	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03G1	MS	GEN PREP	7199	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	3550B	8015B EFH	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	3550B	8082	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	3550B	8270C	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	3550B	8270C SIM	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	7471A	7471A	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	300.0	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	314.0	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	6020	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	7199	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
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	8015B	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M	MS	GEN PREP	8015M	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5MS	B201-03M1	MS	GEN PREP	7199	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03R	N	GEN PREP	7199	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03T	N	3550B	8015B EFH	III
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	B201-03W	N	GEN PREP	6020	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	3520C	8015B EFH	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	3520C	8082	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	3520C	8270C	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	5030B	8015B GRO	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	7470A	7470A	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	300.0	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	314.0	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	7199	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	8015B	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	8015M	III
22-Feb-2012	EB-SA7-SB-022212	B201-01	EB	GEN PREP	9040C	III
22-Feb-2012	EB-SA7-SB-022212DUP	B201-01D	DUP	GEN PREP	9040C	III
22-Feb-2012	EB-SA7-SB-022212	B201-01R	EB	GEN PREP	7199	III
22-Feb-2012	EB-SA7-SB-022212	B201-01W	EB	GEN PREP	6020	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: 12B201 **Laboratory: EMXT**

EDD Filename: Prep12B201 **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RES/TOT *Dilution:* 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8530		12.5	MDL	25.0	PQL	MG/KG	J	Q
ANTIMONY	0.195	J	0.104	MDL	0.208	PQL	MG/KG	J	Z, Q
BARIUM	76.7		0.208	MDL	0.417	PQL	MG/KG	J	Q
BORON	30.0		2.60	MDL	5.21	PQL	MG/KG	J	Q, E
CALCIUM	9560		10.4	MDL	20.8	PQL	MG/KG	J	Q
LEAD	52.5		0.104	MDL	0.208	PQL	MG/KG	J	Q, E, Q
VANADIUM	28.7		0.0521	MDL	0.104	PQL	MG/KG	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RE *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.07	U	0.534	MDL	1.07	PQL	MG/KG	UJ	Q

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.07	U	0.534	MDL	1.07	PQL	MG/KG	UJ	Q

Method Category: SVOA

Method: 8015B EFH **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	3.2	J	2.7	MDL	5.3	PQL	MG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: Prep12B201 **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: SVOA
Method: 8270C **Matrix: AQ**

Sample ID: EB-SA7-SB-022212 *Collected:* 2/22/2012 12:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1.05

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	52	U	21	MDL	52	PQL	UG/L	UJ	E
BENZOIC ACID	42	U	21	MDL	42	PQL	UG/L	UJ	E

Method Category: SVOA
Method: 8270C **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *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	710	U	360	MDL	710	PQL	UG/KG	R	Q

Method Category: SVOA
Method: 8270C SIM **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *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	17	J	9.0	MDL	18	PQL	UG/KG	J	Z
DIBENZO(A,H)ANTHRACENE	1.2	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
Di-n-butylphthalate	16	J	9.0	MDL	18	PQL	UG/KG	J	Z

Method Category: VOA
Method: 8015B GRO **Matrix: AQ**

Sample ID: EB-SA7-SB-022212 *Collected:* 2/22/2012 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	23	J	10	MDL	50	PQL	UG/L	U	T

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: Prep12B201 **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: **VOA**

Method: **8015B GRO** ***Matrix:*** **AQ**

Sample ID: TB-022212 ***Collected:*** 2/22/2012 8:00:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	23	J	10	MDL	50	PQL	UG/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Data Qualifier Summary

Lab Reporting Batch ID: 12B201

Laboratory: EMXT

EDD Filename: Prep12B201

eQAPP Name: CDM_SSFL_120730_EMAX

Reason Code Legend

Reason Code	*Description*
E	Laboratory Control Precision
E	Matrix Spike Precision
L	Laboratory Control Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
T	Trip Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

12B201

Trip Blank Outlier Report

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: 12B201 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: **8015B GRO**
Matrix: **AQ**

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-022212(RES)	2/22/2012 8:00:00 AM	GASOLINE RANGE ORGANICS (C5-C12)	23 UG/L	EB-SA7-SB-022212 SL-187-SA7-SB-27.5-28.5 SL-187-SA7-SB-28.0

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
EB-SA7-SB-022212(RES)	GASOLINE RANGE ORGANICS (C5-C12)	23 UG/L	50U UG/L

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: 12B201 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 7199
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-187-SA7-SB-27.5-28.5MS (DRY) SL-187-SA7-SB-27.5-28.5MSD (DRY) (SL-187-SA7-SB-27.5-28.5)	HEXAVALENT CHROMIUM	74	62	75.00-125.00	-	HEXAVALENT CHROMIUM	J (all detects) UJ (all non-detects)

Method: 8015B EFH
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-187-SA7-SB-27.5-28.5MSD (SL-187-SA7-SB-27.5-28.5)	TOTAL EFH(C8-C40)	-	380	50.00-150.00	-	TOTAL EFH(C8-C40)	No Qual, Diluted Out

Method: 7199
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-187-SA7-SB-27.5-28.5MSD (DRY) (SL-187-SA7-SB-27.5-28.5)	HEXAVALENT CHROMIUM	-	69	75.00-125.00	-	HEXAVALENT CHROMIUM	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-187-SA7-SB-27.5-28.5MS (TOT) SL-187-SA7-SB-27.5-28.5MSD (TOT) (SL-187-SA7-SB-27.5-28.5)	IRON	-69	-53	75.00-125.00	-	IRON	J(all detects) UJ(all non-detects) Fe, Mg, Ti, No Qual, >4x Pb Post Spike = 89%
	LEAD	18	697	75.00-125.00	119 (20.00)	LEAD	
	MANGANESE	-212	-140	75.00-125.00	-	MANGANESE	
	TITANIUM	-431	-398	75.00-125.00	-	TITANIUM	
SL-187-SA7-SB-27.5-28.5MS (TOT) SL-187-SA7-SB-27.5-28.5MSD (TOT) (SL-187-SA7-SB-27.5-28.5)	ALUMINUM	52	50	75.00-125.00	-	ALUMINUM	J(all detects) UJ(all non-detects)
	ANTIMONY	74	-	75.00-125.00	-	ANTIMONY	
	BARIUM	59	69	75.00-125.00	-	BARIUM	
	BORON	-	215	75.00-125.00	40 (20.00)	BORON	
	CALCIUM	58	-	75.00-125.00	-	CALCIUM	
	VANADIUM	68	-	75.00-125.00	-	VANADIUM	

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-187-SA7-SB-27.5-28.5MS SL-187-SA7-SB-27.5-28.5MSD (SL-187-SA7-SB-27.5-28.5)	BENZOIC ACID	0	0	10.00-130.00	-	BENZOIC ACID	J(all detects) R(all non-detects)

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: 12B201 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SVB036WC	BENZIDINE	-	-	20.00-130.00	56 (30.00)	BENZIDINE	J (all detects)
(EB-SA7-SB-022212)	BENZOIC ACID	-	-	10.00-130.00	31 (30.00)	BENZOIC ACID	UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 12B201 **Laboratory: EMXT**

EDD Filename: 12B201 **eQAPP Name: CDM_SSFL_120718_EMAX**

Method: 8015B GRO
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-022212	GASOLINE RANGE ORGANICS (C5-C12)	J	23	50	PQL	UG/L	J (all detects)
TB-022212	GASOLINE RANGE ORGANICS (C5-C12)	J	23	50	PQL	UG/L	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-187-SA7-SB-27.5-28.5	ANTIMONY	J	0.195	0.208	PQL	MG/KG	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-187-SA7-SB-27.5-28.5	EFH(C8-C11)	J	3.2	5.3	PQL	MG/KG	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-187-SA7-SB-27.5-28.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	17	18	PQL	UG/KG	
	DIBENZO(A,H)ANTHRACENE	J	1.2	1.8	PQL	UG/KG	J (all detects)
	Di-n-butylphthalate	J	16	18	PQL	UG/KG	

LDC #: 27992I4
SDG #: 12B201
Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 7-9-12
Page: 1 of 1
Reviewer: AC
2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method ~~6010B~~/6020/~~A/7000~~) 7470A / 7471A

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:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D (Fe, Mn, Ti >4x) (Pb RS=89%: J/UJ)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	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	ND	EB=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: soil/water

1	EB-SA7-SB-022212 W	11		21		31	
2	SL-187-SA7-SB-27.5-28.5 S	12		22		32	
3	SL-187-SA7-SB-27.5-28.5MS	13		23		33	
4	SL-187-SA7-SB-27.5-28.5MSD	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: _____

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: CDM
PROJECT: SSFL AREA IV COLLOCATED SAMPLING
SDG NO.: 12B201
METHOD: METHOD 6020

MATRIX:	SOIL			% MOISTURE:	6.3
DILTN FACTR:	0.976	0.909	0.930		
SAMPLE ID:	SL-187-SA7-SB-27.5-28.5				
CONTROL NO.:	B201-03W	B201-03M	B201-03S		
LAB FILE ID:	98B17031	98B14068	98B14069		
DATIME EXTRCTD:	02/24/1215:03	02/24/1215:03	02/24/1215:03	DATE COLLECTED:	02/22/12
DATIME ANALYZD:	02/29/1213:22	02/24/1220:17	02/24/1220:23	DATE RECEIVED:	02/22/12
PREP. BATCH:	IMB023S	IMB023S	IMB023S		
CALIB. REF:	98B17026	98B14063	98B14063		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	8530	2430	9790	52*	2480	9760	50*	0	75-125	20
Antimony	0.195J	24.3	18.1	74*	24.8	19.1	76	5	75-125	20
Arsenic	3.17	24.3	25.8	93	24.8	26.3	93	2	75-125	20
Barium	76.7	24.3	91.1	59*	24.8	93.7	69*	3	75-125	20
Beryllium	0.358	24.3	24.7	100	24.8	25.9	103	5	75-125	20
Boron	30.0	24.3	55.9	107	24.8	83.5	215*	40*	75-125	20
Cadmium	0.165	24.3	23.6	97	24.8	24.5	98	4	75-125	20
Calcium	9560	2430	11000	58*	2480	11400	75*	4	75-125	20
Chromium	21.4	24.3	44.8	97	24.8	43.4	89	3	75-125	20
Cobalt	4.34	24.3	26.5	91	24.8	26.9	91	2	75-125	20
Copper	7.00	24.3	28.8	90	24.8	29.5	91	2	75-125	20
Iron	20000	2430	18300	-69*	2480	18700	-53*	2	75-125	20
Lead	52.5	24.3	56.8	18*	24.8	225	697*	119*	75-125	20
Magnesium	3300	2430	5200	79	2480	5310	81	2	75-125	20
Manganese	302	24.3	250	-212*	24.8	267	-140*	6	75-125	20
Molybdenum	2.55	24.3	26.6	99	24.8	27.2	99	2	75-125	20
Nickel	8.49	24.3	29.3	86	24.8	29.9	86	2	75-125	20
Potassium	2680	2430	4810	88	2480	4780	84	1	75-125	20
Selenium	ND	24.3	24.0	99	24.8	24.5	99	2	75-125	20
Silver	ND	24.3	23.5	97	24.8	24.2	98	3	75-125	20
Sodium	374	2430	2610	92	2480	2670	93	2	75-125	20
Strontium	34.7	24.3	58.0	96	24.8	58.7	97	1	75-125	20
Thallium	0.230	24.3	24.1	99	24.8	25.1	100	4	75-125	20
Tin	ND	24.3	26.9	111	24.8	27.6	111	2	75-125	20
Titanium	831	24.3	726	-431*	24.8	732	-398*	1	75-125	20
Vanadium	28.7	24.3	45.3	68*	24.8	47.2	75*	4	75-125	20
Zinc	56.0	48.5	98.4	87	49.6	98.5	86	0	75-125	20
Lithium	18.3	24.3	39.4	87	24.8	40.5	90	3	75-125	20
Phosphorus	401	243	607	85	248	638	96	5	75-125	20
Zirconium	ND	24.3	24.5	101	24.8	25.6	103	4	75-125	20

>4X PS=89% J/UJ
>4X
>4X

SAMPLE DELIVERY GROUP

DE293

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
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	6550046	N	3546	1625C	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	6550046	N	3550B	8015B	III
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	6550046	N	METHOD	8315A	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	6550049	N	3546	1625C	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	6550049	N	3550B	8015B	III
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	6550049	N	METHOD	8315A	III
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	6550047	N	3546	1625C	III
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	6550047	N	3550B	8015B	III
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	6550047	N	METHOD	8315A	III
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0M	P550047R241710A	MS	METHOD	8315A	III
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	6550048	N	3546	1625C	III
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	6550048	N	3550B	8015B	III
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	6550048	N	METHOD	8315A	III
15-Feb-2012	EB-SA5C-SB-021512	6550050	EB	3510C	8015B	III
15-Feb-2012	EB-SA5C-SB-021512	6550050	EB	3520C	1625C	III
15-Feb-2012	EB-SA5C-SB-021512	6550050	EB	METHOD	8315A	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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Data Qualifier Summary

Lab Reporting Batch ID: DE293 **Laboratory: LL**

EDD Filename: PrepDE293 **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	184	U	184	MDL	368	PQL	ng/Kg	UJ	H

Sample ID: SL-147-SA5C-SB-40.0-41.0 *Collected:* 2/15/2012 2:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	184	U	184	MDL	368	PQL	ng/Kg	UJ	H

Sample ID: SL-147-SA5C-SB-55.0-56.0 *Collected:* 2/15/2012 10:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	18.5	U	18.5	MDL	37.0	PQL	ng/Kg	UJ	H

Sample ID: SL-148-SA5C-SB-40.0-41.0 *Collected:* 2/14/2012 12:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	178	U	178	MDL	355	PQL	ng/Kg	UJ	H

Method Category: SVOA

Method: 8315A **Matrix: AQ**

Sample ID: EB-SA5C-SB-021512 *Collected:* 2/15/2012 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	10	J	10	MDL	50	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	3000	J	1300	MDL	3300	PQL	ug/Kg	J	Z, S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE293 **Laboratory: LL**

EDD Filename: PrepDE293 **eQAPP Name: CDM_SSFL_120730_EMAX**

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-147-SA5C-SB-40.0-41.0 **Collected:** 2/15/2012 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
FORMALDEHYDE	3900		1300	MDL	3300	PQL	ug/Kg	J	S

Sample ID: SL-147-SA5C-SB-55.0-56.0 **Collected:** 2/15/2012 10:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1300	U	1300	MDL	3400	PQL	ug/Kg	UJ	S

Sample ID: SL-148-SA5C-SB-40.0-41.0 **Collected:** 2/14/2012 12:10:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	4900		1300	MDL	3200	PQL	ug/Kg	J	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE293 **Laboratory: LL**

EDD Filename: PrepDE293 **eQAPP Name: CDM_SSFL_120730_EMAX**

Reason Code Legend

Reason Code	*Description*
H	Sampling to Extraction Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE293

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE293
EDD Filename: DE293_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_120718_Lan

Method: 1625C **Preparation Method: 3546**
Matrix: SO

Sample ID	Type	Actual	Criteria	Units	Flag
SL-146-SA5C-SB-47.5-48.5 (RES)	Sampling To Extraction	18.00	14.00	DAYS	J (all detects)
SL-147-SA5C-SB-40.0-41.0 (RES)		16.00	14.00	DAYS	UJ (all non-detects)
SL-147-SA5C-SB-55.0-56.0 (RES)		16.00	14.00	DAYS	
SL-148-SA5C-SB-40.0-41.0 (RES)		17.00	14.00	DAYS	

Surrogate Outlier Report

Lab Reporting Batch ID: DE293 **Laboratory: LL**

EDD Filename: DE293_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: **8315A**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-146-SA5C-SB-47.5-48.5	Butyraldehyde	36	64.00-126.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-147-SA5C-SB-40.0-41.0	Butyraldehyde	38	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-147-SA5C-SB-55.0-56.0	Butyraldehyde	32	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-148-SA5C-SB-40.0-41.0	Butyraldehyde	35	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE293 **Laboratory: LL**

EDD Filename: DE293_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 8315A
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5C-SB-021512	FORMALDEHYDE	J	10	50	PQL	ug/L	J (all detects)

Method: 8315A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	FORMALDEHYDE	J	3000	3300	PQL	ug/Kg	J (all detects)

SAMPLE DELIVERY GROUP

DE294

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-Feb-2012	SL-261-SA5A-SB-8.5-9.5	6552763	N	3546	1625C	III
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	6552763	N	3550B	8015B	III
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	6552763	N	METHOD	8315A	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.6	6552764	N	3546	1625C	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.6	6552764	N	3550B	8015B	III
16-Feb-2012	SL-260-SA5A-SB-5.5-6.6	6552764	N	METHOD	8315A	III
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	6552765	N	3550B	8015B	III
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	6552768	N	3550B	8015B	III
17-Feb-2012	SL-325-SA6-SB-22.0-23.0	6552766	N	3546	1625C	III
17-Feb-2012	SL-325-SA6-SB-22.0-23.0	6552766	N	3550B	8015B	III
17-Feb-2012	SL-325-SA6-SB-22.0-23.0	6552766	N	METHOD	8315A	III
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	6552767	N	3546	1625C	III
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	6552767	N	3550B	8015B	III
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	6552767	N	METHOD	8315A	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: DE294 **Laboratory: LL**

EDD Filename: DE294_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-260-SA5A-SB-5.5-6.6 *Collected:* 2/16/2012 9:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	18.3	U	18.3	MDL	36.5	PQL	ng/Kg	UJ	H

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	17.6	U	17.6	MDL	35.2	PQL	ng/Kg	UJ	H

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-260-SA5A-SB-5.5-6.6 *Collected:* 2/16/2012 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1300	U	1300	MDL	3300	PQL	ug/Kg	UJ	S

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1300	U	1300	MDL	3200	PQL	ug/Kg	UJ	S

Sample ID: SL-325-SA6-SB-22.0-23.0 *Collected:* 2/17/2012 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1500	U	1500	MDL	3700	PQL	ug/Kg	UJ	S

Sample ID: SL-325-SA6-SB-26.0-27.0 *Collected:* 2/17/2012 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	7600		1300	MDL	3200	PQL	ug/Kg	J	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE294 **Laboratory: LL**

EDD Filename: DE294_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Reason Code Legend

Reason Code	*Description*
H	Sampling to Extraction Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Upper Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE294

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE294 **Laboratory: LL**
EDD Filename: DE294_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1625C **Preparation Method: 3546**
Matrix: SO

Sample ID	Type	Actual	Criteria	Units	Flag
SL-260-SA5A-SB-5.5-6.6 (RES)	Sampling To Extraction	15.00	14.00	DAYS	J (all detects)
SL-261-SA5A-SB-8.5-9.5 (RES)		16.00	14.00	DAYS	UJ (all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE294 **Laboratory: LL**

EDD Filename: DE294_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 8015B
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-325-SA6-SB-22.0-23.0	n-Triacontane-d62	294	19.00-152.00	All Target Analytes	J(all detects)

Method: 8315A
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-260-SA5A-SB-5.5-6.6	Butyraldehyde	36	64.00-126.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-261-SA5A-SB-8.5-9.5	Butyraldehyde	35	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-325-SA6-SB-22.0-23.0	Butyraldehyde	40	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-325-SA6-SB-26.0-27.0	Butyraldehyde	35	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)

SAMPLE DELIVERY GROUP

DE295

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
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	6556463	N	3550B	8015B	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	6556470	N	3546	1625C	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	6556470	N	3550B	8015B	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	6556470	N	METHOD	8315A	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	6556471	N	3546	1625C	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	6556471	N	3550B	8015B	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	6556471	N	METHOD	8315A	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	6556464	N	3546	1625C	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	6556464	N	3550B	8015B	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	6556464	N	METHOD	8315A	IV
21-Feb-2012	DUP10-SA7-QC-022112	6556472	FD	3546	1625C	IV
21-Feb-2012	DUP10-SA7-QC-022112	6556472	FD	3550B	8015B	IV
21-Feb-2012	DUP10-SA7-QC-022112	6556472	FD	METHOD	8315A	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	6556465	N	3546	1625C	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	6556465	N	3550B	8015B	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	6556465	N	METHOD	8315A	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5 M	6556466	MS	3550B	8015B	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5 M	6556466	MS	METHOD	8315A	IV
22-Feb-2012	EB-SA7-SB-022212	6556473	EB	3510C	8015B	IV
22-Feb-2012	EB-SA7-SB-022212	6556473	EB	3520C	1625C	IV
22-Feb-2012	EB-SA7-SB-022212	6556473	EB	METHOD	8315A	IV

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: DE295 **Laboratory: LL**

EDD Filename: PrepDE295 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB-SA7-SB-022212 *Collected:* 2/22/2012 12:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.918	J	0.503	MDL	1.01	PQL	ng/L	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	970	J	630	MDL	1600	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE295 **Laboratory: LL**

EDD Filename: PrepDE295 **eQAPP Name: CDM_SSFL_120718_Lan**

Reason Code Legend

Reason Code	*Description*
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE295

Reporting Limit Outliers

Lab Reporting Batch ID: DE295 **Laboratory: LL**

EDD Filename: DE295_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-022212	N-NITROSODIMETHYLAMINE	J	0.918	1.01	PQL	ng/L	J (all detects)

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-187-SA7-SB-27.5-28.5	FORMALDEHYDE	J	970	1600	PQL	ug/Kg	J (all detects)

Data Qualifier Summary

Lab Reporting Batch ID: DE295 **Laboratory: LL**

EDD Filename: DE295_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB-SA7-SB-022212 *Collected:* 2/22/2012 12:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.918	J	0.503	MDL	1.01	PQL	ng/L	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-187-SA7-SB-27.5-28.5 *Collected:* 2/22/2012 10:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	970	J	630	MDL	1600	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE295 **Laboratory: LL**

EDD Filename: DE295_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Reason Code Legend

Reason Code	*Description*
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21 through 22, 2012

LDC Report Date: July 31, 2012

Matrix: Soil/Water

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE295

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-187-SA7-SB-27.5-28.5
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112
EB-SA7-SB-022212

Introduction

This data review covers 5 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

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.

N Presumptive evidence of presence of the constituent.

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/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for N-Nitrosodimethylamine.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 30.0% for N-Nitrosodimethylamine.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for N-Nitrosodimethylamine.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks.

Sample EB-SA7-SB-022212 was identified as an equipment blank. No N-nitrosodimethylamine was found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-022212	2/22/12	N-nitrosodimethylamine	0.9 ug/L	SL-187-SA7-SB-27.5-28.5

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE295	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No N-nitrosodimethylamine was detected in any of the samples.

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE295

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE295	SL-186-SA7-SB-27.0-28.0 SL-187-SA7-SB-27.5-28.5 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112 EB-SA7-SB-022212	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE295

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE295

No Sample Data Qualified in this SDG

LDC #: 27992L2c **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12
SDG #: DE295 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

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: ~~12/13 - 16~~ 2/21 - 2/22/12
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 20 CCV ≤ 30
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 1,5
XVII.	Field blanks	SW	EB = 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: SOIL + water

1	SL-186-SA7-SB-27.0-28.0 ~~Soil~~	11	SBLKLE061	21		31	
2	SL-187-SA7-SB-27.5-28.5 ~~Soil~~	12	SBLKLD059	22		32	
3	SL-188-SA7-SB-18.5-19.5 ~~Soil~~	13		23		33	
4	SL-188-SA7-SB-22.0-23.0 ~~Soil~~	14		24		34	
5	DUP10-SA7-QC-022112 ~~oil~~	15		25		35	
6	EB-SA7-SB-022212 ~~Water~~	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 27992120

VALIDATION FINDINGS CHECKLIST

Page: 6 of
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (~~EPA SW 846 Method 8270C~~) 1625C

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓		✓	
Were all percent differences (%D) ≤ ~~25%~~ 20 and relative response factors (RRF) ≥ 0.05?	✓			
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 QC limits?	✓			
If 2 or more base neutral or acid surrogates were 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?			✓	
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?	✓			

LDC #: 27992L2C

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓		NA	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓		NA	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

LDC #: 27992L2C

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Blank units: ng/L **Associated sample units:** ~~ug~~ ng/kg
Sampling date: 2/22/12
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: none - 2 (ND)

Compound	Blank ID	Sample Identification								
	6									
N-Nitrosodimethylamine	0.9									
CRQL										

Blank units: _____ **Associated sample units:** _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 27992C2C

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 1625C

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/23/12	~~Phenol (1st internal standard)~~ NO NA	1.016	1.016	1.078	1.078	8	8
			~~Naphthalene (2nd internal standard)~~						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			~~Benzo(a)pyrene (6th internal standard)~~						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

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 #: 27992L2C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270C)~~ 1625C

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 09:36	3/1/12	~~Phenol~~ NDMA (1st internal standard)	1.07806	1.05994	1.05994	1.68	1.68
			~~Naphthalene~~ (2nd internal standard)					
	CCV 0845	3/5/12	Fluorene (3rd internal standard) ↓	↓	1.03343	1.03343	4.139	4.14
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
	CCV 11:20	3/5/12	~~Benzo(a)pyrene (6th internal standard)~~ ↓	↓	1.08176	1.08176	0.34	0.34
2			~~Phenol (1st internal standard)~~					
	CCV 14:59	3/5/12	Naphthalene (2nd internal standard) ↓	↓	1.00100	1.00100	7.14798	7.14
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

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 #: 27992l2C

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

METHOD: ~~GC/MS Semivolatiles (EPA SW-846 Method 8270)~~ 1625C

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 Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~ N-NDMA-d6	25	18.084	72	72	0
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27992L2C

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: LA

METHOD: GC/MS BNA (~~EPA SW-846 Method 8270~~) 1625C

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 1625 LCS 1D 501L

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
N-NDMA ~~Phenol~~	833.33	833.33	755.16	744.75	91	91	89	89	1	1
~~N-Nitroso-di-n-propylamine~~										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
~~Pyrene~~										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992L2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #6 , NDMA:

Conc. = $\frac{(5827)(25)(1)(1000)(\quad)}{(148007)(1.07806)(994)(\quad)}$

= 0.92 ng/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21 through 22, 2012

LDC Report Date: July 31, 2012

Matrix: Soil/Water

Parameters: Terphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE295

Sample Identification

SL-323-SA6-SB-23.0-24.0
SL-186-SA7-SB-27.0-28.0
SL-187-SA7-SB-27.5-28.5
SL-187-SA7-SB-27.5-28.5MS
SL-187-SA7-SB-27.5-28.5MSD
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112
EB-SA7-SB-022212

Introduction

This data review covers 8 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

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 terphenyl contaminants were found in the method blanks.

Sample EB-SA7-SB-022212 was identified as an equipment blank. No terphenyl contaminants were 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) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE295	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No terphenyls were detected in any of the samples.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE295

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE295	SL-323-SA6-SB-23.0-24.0 SL-186-SA7-SB-27.0-28.0 SL-187-SA7-SB-27.5-28.5 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112 EB-SA7-SB-022212	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE295

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE295

No Sample Data Qualified in this SDG

LDC #: 27992L41 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12
SDG #: DE295 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: B
2nd Reviewer: W

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

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: 2/21 - 2/22/12
II	Initial calibration	A	%RSD ≤20
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 ID
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 = 2 + 10
XIII.	Field blanks	ND	EB = 11

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 + water

W

1	SL-323-SA6-SB-23.0-24.0 ~~Soil~~	11	EB-SA7-SB-022212 ~~Water~~	21		31	
2	SL-186-SA7-SB-27.0-28.0 ~~Soil~~	12		22		32	
3	SL-187-SA7-SB-27.5-28.5 ~~Soil~~	13		23		33	
4	SL-187-SA7-SB-27.5-28.5MS ~~Soil~~	14	PBLK22059	24		34	
5	SL-187-SA7-SB-27.5-28.5MSD ~~Soil~~	15	PBLK17059	25		35	
6	~~SL-187-SA7-SB-27.5-28.5RL Soil~~	16		26		36	
7	~~SL-187-SA7-SB-27.5-28.5RL LCS Soil~~	17		27		37	
8	SL-188-SA7-SB-18.5-19.5 ~~Soil~~	18		28		38	
9	SL-188-SA7-SB-22.0-23.0 ~~Soil~~	19		29		39	
10	DUP10-SA7-QC-022112 ~~oil~~	20		30		40	

Notes:

LDC #: 27992A4 1
SDG #: pw cover

VALIDATION FINDINGS CHECKLIST

Reviewer: RJ
2nd Reviewer: [signature]

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 #: 27992L41
SDG #: all cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: V

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.	✓			
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 #: 27992L41
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (26-5 std)	Recalculated CF (26-5 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/22/12	m-Terphenyl	2.18×10^4	2.18×10^4	2.20×10^4	2.20×10^4	3.3	3.3
2									
3									
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 #: R79924 / 1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: F2
2nd Reviewer:

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
CF = A/C

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 10:36	3/5/12	m-Terphenyl	106.22	111.64	111.64	5-1	5-1
	CCV 15:08	3/5/12	↓	↓	105.04	105.04	1-1	1-1
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 #: 27992L4/
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

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	
n-Triacontane-d62	NS	0.332	0.30540	92	92	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 #: 27992 (4)
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
2nd Reviewer: LA

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: 4 + 5

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)											
m-Terphenyl	8.15	8.15	ND	7.4	7.36	91	91	90	90	1	1

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 #: 27992L4/
SDG #: pu cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: EV
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: ICS 220591

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/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)										
m-Terphenyl	8.21	NA	7.29	NA	89	89	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 #: 27992L4/
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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 = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 21 through 22, 2012

LDC Report Date: July 31, 2012

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE285

Sample Identification

SL-186-SA7-SB-27.0-28.0
SL-187-SA7-SB-27.5-28.5
SL-187-SA7-SB-27.5-28.5MS
SL-187-SA7-SB-27.5-28.5MSD
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112
EB-SA7-SB-022212

Introduction

This data review covers 7 soil samples and one water sample 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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

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.

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-SA7-SB-022212 was identified as an equipment 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

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

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 and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE285	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-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No formaldehyde was found in any of the samples.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE285

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE285	SL-186-SA7-SB-27.0-28.0 SL-187-SA7-SB-27.5-28.5 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112 EB-SA7-SB-022212	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE285

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE285

No Sample Data Qualified in this SDG

LDC #: 27992L71 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/26/12

SDG #: DE285 Level IV Page: 1 of 1

Laboratory: 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: 2/21 – 2/22/12
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/~~ICV~~	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	1
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	1
XII.	Field duplicates	ND	D = 2 & 9
XIII.	Field blanks	ND	EB = 10

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 + water

1	SL-186-SA7-SB-27.0-28.0 Soil	11 1	PBLK010512	21		31	
2	SL-187-SA7-SB-27.5-28.5 Soil	12 2	PBLK110512	22		32	
3	SL-187-SA7-SB-27.5-28.5MS Soil	13		23		33	
4	SL-187-SA7-SB-27.5-28.5MSD Soil	14		24		34	
~~5~~	~~SL-187-SA7-SB-27.5-28.5RL Soil~~	15		25		35	
~~6~~	~~SL-187-SA7-SB-27.5-28.5RL LCS Soil~~	16		26		36	
7	SL-188-SA7-SB-18.5-19.5 Soil	17		27		37	
8	SL-188-SA7-SB-22.0-23.0 Soil	18		28		38	
9	DUP10-SA7-QC-022112 oil	19		29		39	
10 2	EB-SA7-SB-022212 Water W	20		30		40	

Notes: _____

LDC #: 27992L71
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: [signature]

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 #: 27992L7 1
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: W

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.	✓			
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 #: 27992L71
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

3

#	Standard ID	Calibration Date	Compound	Reported 2002 CF (std)	Recalculated 2002 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/27/12	Formaldehyde	4.30×10^{1}	4.30×10^{1}	4.43×10^{1}	4.43×10^{1}	5.0	5.0
2	ICAL	2/29/12	↓	4.61×10^{1}	4.61×10^{1}	4.45×10^{1}	4.45×10^{1}	2.6	2.6
3									
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.

INICLC 1SB

LDC #: 27992C7 1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: LA

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
CF = A/C

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 18:33	2/29/12	Formaldehyde	2002.00	2122.30	2122.30	6.0	6.0
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 #: 27992L7/
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

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	400U	3938.46747	99	98.45	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 #: 27992L7 /
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
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 ( )		Sample Conc. ( )	Spike Sample Concentration ( )		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	5025	5025	920.36	6132.75	6016.99	104	104	101	101	2	2

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 #: 27992-L71
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC __HPLC

The percent recoveries (%R) and Relative Percent difference (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 = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 0105 9

Compound	Spike Added (ug/kg)		Spiked 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	9025	NA	5688.43	NA	113	113				

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 #: 27992L7J
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
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= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

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. #2 Compound Name Formaldehyde

Concentration = $\frac{41587 \quad (20)}{4.45 \times 10^7 \quad (20.3) \quad (0.94)}$

$= 980 \text{ ug/kg}$

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: [illegible]

SAMPLE DELIVERY GROUP

DX158

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
13-Feb-2012	SL-146-SA5C-SB-47.5-48.5	6550052	N	METHOD	1613B	IV
14-Feb-2012	SL-148-SA5C-SB-40.0-41.0	6550055	N	METHOD	1613B	IV
15-Feb-2012	SL-147-SA5C-SB-55.0-56.0	6550053	N	METHOD	1613B	IV
15-Feb-2012	SL-147-SA5C-SB-40.0-41.0	6550054	N	METHOD	1613B	IV
15-Feb-2012	EB-SA5C-SB-021512	6550056	EB	METHOD	1613B	IV
15-Feb-2012	SL-261-SA5A-SB-8.5-9.5	6552769	N	METHOD	1613B	IV
16-Feb-2012	SL-260-SA5A-SB-5.5-6.6	6552770	N	METHOD	1613B	IV
16-Feb-2012	SL-324-SA6-SB-25.0-26.0	6555638	N	METHOD	1613B	IV
17-Feb-2012	SL-326-SA6-SB-23.0-24.0	6555639	N	METHOD	1613B	IV
17-Feb-2012	SL-325-SA6-SB-22.0-23.0	6552771	N	METHOD	1613B	IV
17-Feb-2012	SL-325-SA6-SB-26.0-27.0	6552772	N	METHOD	1613B	IV
20-Feb-2012	SL-323-SA6-SB-23.0-24.0	6556491	N	METHOD	1613B	IV
21-Feb-2012	SL-188-SA7-SB-18.5-19.5	6556496	N	METHOD	1613B	IV
21-Feb-2012	SL-188-SA7-SB-22.0-23.0	6556497	N	METHOD	1613B	IV
21-Feb-2012	SL-186-SA7-SB-27.0-28.0	6556492	N	METHOD	1613B	IV
21-Feb-2012	DUP10-SA7-QC-022112	6556498	FD	METHOD	1613B	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5	6556493	N	METHOD	1613B	IV
22-Feb-2012	SL-187-SA7-SB-27.5-28.5 M	6556494	MS	METHOD	1613B	IV
22-Feb-2012	EB-SA7-SB-022212	6556499	EB	METHOD	1613B	IV

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: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: AQ**

Sample ID: EB-SA5C-SB-021512 *Collected:* 2/15/2012 3:30:00 *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	4.73	JB	0.297	MDL	10.8	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	1.56	JBQ	0.159	MDL	10.8	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.416	JBQ	0.169	MDL	10.8	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.472	JBQ	0.260	MDL	10.8	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.415	JBQ	0.148	MDL	10.8	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.576	JBQ	0.260	MDL	10.8	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.309	JBQ	0.147	MDL	10.8	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.518	JBQ	0.264	MDL	10.8	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.337	JBQ	0.150	MDL	10.8	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.314	JBQ	0.305	MDL	10.8	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.183	JBQ	0.165	MDL	10.8	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.602	JB	0.138	MDL	10.8	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.683	JBQ	0.146	MDL	10.8	PQL	pg/L	U	B
OCDD	7.75	JB	0.318	MDL	21.7	PQL	pg/L	U	B
OCDF	1.74	JB	0.304	MDL	21.7	PQL	pg/L	U	B

Sample ID: EB-SA7-SB-022212 *Collected:* 2/22/2012 12:30:00 *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	4.44	JB	0.259	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	3.52	JB	0.137	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.698	JBQ	0.160	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.308	JBQ	0.207	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.607	JB	0.148	MDL	10.2	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.503	JB	0.217	MDL	10.2	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.589	JB	0.148	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.399	JBQ	0.193	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.334	JBQ	0.143	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.312	JB	0.117	MDL	10.2	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.718	JB	0.131	MDL	10.2	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.532	JBQ	0.109	MDL	10.2	PQL	pg/L	U	B
2,3,7,8-TCDD	0.321	JQ	0.238	MDL	2.03	PQL	pg/L	J	Z
OCDD	7.79	JB	0.225	MDL	20.3	PQL	pg/L	U	B
OCDF	2.04	JB	0.234	MDL	20.3	PQL	pg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: DUP10-SA7-QC-022112 *Collected:* 2/21/2012 4:25:00 *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-HPCDD	0.402	JBQ	0.0218	MDL	5.31	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.218	JB	0.00965	MDL	5.31	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0928	JB	0.0196	MDL	5.31	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0397	JB	0.0237	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.116	JB	0.0181	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0839	JB	0.0241	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDF	0.0722	JBQ	0.0143	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.0849	JBQ	0.0233	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.105	JBQ	0.0224	MDL	5.31	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.201	JBQ	0.0298	MDL	5.31	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.161	JB	0.0133	MDL	5.31	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.111	JB	0.0161	MDL	5.31	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.156	JB	0.0150	MDL	5.31	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0453	JB	0.0329	MDL	1.06	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	0.0411	JBQ	0.0252	MDL	1.06	PQL	ng/Kg	UJ	B, FD
OCDD	0.820	JB	0.0195	MDL	10.6	PQL	ng/Kg	U	B
OCDF	0.275	JB	0.0251	MDL	10.6	PQL	ng/Kg	U	B

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.856	JB	0.0143	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.127	JBQ	0.0246	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0863	JBQ	0.0335	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.104	JB	0.0204	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.342	JBQ	0.0321	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.104	JB	0.0180	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.147	JB	0.0316	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0459	JBQ	0.0233	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0666	JBQ	0.0324	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0351	JB	0.0179	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.130	JB	0.0205	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.124	JBQ	0.0187	MDL	5.53	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0363	JQ	0.0329	MDL	1.11	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-146-SA5C-SB-47.5-48.5 *Collected:* 2/13/2012 3:20:00 *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	0.0447	JQ	0.0345	MDL	1.11	PQL	ng/Kg	J	Z
OCDF	2.39	JB	0.0282	MDL	11.1	PQL	ng/Kg	J	Z

Sample ID: SL-147-SA5C-SB-40.0-41.0 *Collected:* 2/15/2012 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
1,2,3,4,6,7,8-HPCDD	3.74	JB	0.0288	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.542	JB	0.0120	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0986	JBQ	0.0183	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0592	JB	0.0266	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.109	JB	0.0208	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.199	JB	0.0275	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0892	JBQ	0.0185	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.150	JBQ	0.0264	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.109	JBQ	0.0225	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0465	JBQ	0.0327	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0576	JBQ	0.0167	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.129	JBQ	0.0192	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.145	JBQ	0.0167	MDL	5.52	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0455	JQ	0.0327	MDL	1.10	PQL	ng/Kg	J	Z
OCDF	0.924	JB	0.0240	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-147-SA5C-SB-55.0-56.0 *Collected:* 2/15/2012 10:25:00 *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-HPCDD	4.50	JB	0.0344	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.581	JB	0.0130	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.153	JBQ	0.0221	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0724	JB	0.0287	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.190	JB	0.0217	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.160	JB	0.0306	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.146	JB	0.0189	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.116	JB	0.0272	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.116	JB	0.0252	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0566	JBQ	0.0309	MDL	5.58	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-147-SA5C-SB-55.0-56.0 *Collected:* 2/15/2012 10:25:00 *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-PECDF	0.0721	JBQ	0.0178	MDL	5.58	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.170	JB	0.0209	MDL	5.58	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.158	JB	0.0182	MDL	5.58	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0393	J	0.0346	MDL	1.12	PQL	ng/Kg	J	Z
OCDF	1.20	JB	0.0275	MDL	11.2	PQL	ng/Kg	J	Z

Sample ID: SL-148-SA5C-SB-40.0-41.0 *Collected:* 2/14/2012 12:10:00 *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	3.62	JB	0.0223	MDL	5.32	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.556	JB	0.0138	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0739	JB	0.0163	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0445	JBQ	0.0245	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0867	JB	0.0156	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.157	JB	0.0244	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0721	JB	0.0145	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0920	JB	0.0228	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0818	JB	0.0160	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0513	JBQ	0.0222	MDL	5.32	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0776	JBQ	0.0140	MDL	5.32	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.122	JB	0.0145	MDL	5.32	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.149	JB	0.0129	MDL	5.32	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0368	JQ	0.0252	MDL	1.06	PQL	ng/Kg	J	Z
OCDF	1.00	JB	0.0181	MDL	10.6	PQL	ng/Kg	U	B

Sample ID: SL-186-SA7-SB-27.0-28.0 *Collected:* 2/21/2012 4:23:00 *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	0.254	JBQ	0.0209	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.186	JB	0.00931	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0622	JB	0.0229	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0196	JBQ	0.0191	MDL	5.35	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.0659	JBQ	0.0146	MDL	5.35	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0426	JBQ	0.0198	MDL	5.35	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDF	0.0405	JB	0.0110	MDL	5.35	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-186-SA7-SB-27.0-28.0** ***Collected:*** **2/21/2012 4:23:00** ***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-HXCDD	0.0199	U	0.0199	MDL	5.35	PQL	ng/Kg	UJ	FD
1,2,3,7,8,9-HXCDF	0.0692	JB	0.0203	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0230	JBQ	0.0214	MDL	5.35	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.0374	JBQ	0.0109	MDL	5.35	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0941	JBQ	0.0134	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0708	JBQ	0.0127	MDL	5.35	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0273	U	0.0273	MDL	1.07	PQL	ng/Kg	UJ	FD
2,3,7,8-TCDF	0.0217	JB	0.0206	MDL	1.07	PQL	ng/Kg	UJ	B, FD
OCDD	0.537	JB	0.0193	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.246	JBQ	0.0308	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: **SL-187-SA7-SB-27.5-28.5** ***Collected:*** **2/22/2012 10:09:00** ***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	0.528	JBQ	0.0242	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.179	JB	0.00931	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0716	JB	0.0195	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0361	JBQ	0.0223	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0669	JB	0.0162	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0566	JBQ	0.0235	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0375	JB	0.0133	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0568	JBQ	0.0231	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0430	JBQ	0.0229	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0401	JBQ	0.0295	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0297	JBQ	0.0134	MDL	5.26	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0590	JBQ	0.0150	MDL	5.26	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0671	JBQ	0.0144	MDL	5.26	PQL	ng/Kg	U	B
OCDD	2.56	JB	0.0165	MDL	10.5	PQL	ng/Kg	U	B
OCDF	0.285	JBQ	0.0270	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: **SL-188-SA7-SB-18.5-19.5** ***Collected:*** **2/21/2012 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	0.675	JBQ	0.0165	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.101	JBQ	0.0217	MDL	5.23	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-188-SA7-SB-18.5-19.5 *Collected:* 2/21/2012 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-HxCDD	0.123	JBQ	0.0306	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.120	JB	0.0222	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.259	JB	0.0319	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.135	JB	0.0215	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.243	JB	0.0326	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.106	JBQ	0.0300	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.178	JB	0.0163	MDL	5.23	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.129	JB	0.0208	MDL	5.23	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.174	JBQ	0.0159	MDL	5.23	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0740	JBQ	0.0235	MDL	1.05	PQL	ng/Kg	U	B
OCDF	1.20	JB	0.0208	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-188-SA7-SB-22.0-23.0 *Collected:* 2/21/2012 10:32:00 *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	0.371	JB	0.0158	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.207	JB	0.00737	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0825	JB	0.0163	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0498	JBQ	0.0195	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.120	JB	0.0131	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0776	JBQ	0.0197	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0832	JBQ	0.0104	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0948	JB	0.0197	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.146	JB	0.0210	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.130	JBQ	0.00852	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.116	JBQ	0.0123	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.147	JB	0.0102	MDL	5.00	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0591	JBQ	0.0202	MDL	1.00	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0436	JBQ	0.0148	MDL	1.00	PQL	ng/Kg	U	B
OCDD	0.683	JB	0.0151	MDL	10.0	PQL	ng/Kg	U	B
OCDF	0.262	JB	0.0228	MDL	10.0	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-260-SA5A-SB-5.5-6.6 *Collected:* 2/16/2012 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.31	JB	0.0242	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.362	JB	0.0106	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0803	JB	0.0203	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0533	JBQ	0.0220	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.101	JBQ	0.0162	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0929	JBQ	0.0226	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0735	JBQ	0.0145	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.107	JB	0.0225	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0948	JB	0.0208	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0412	JBQ	0.0284	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0357	JB	0.0155	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.105	JB	0.0148	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0584	JB	0.0159	MDL	5.43	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0341	JQ	0.0322	MDL	1.09	PQL	ng/Kg	J	Z
OCDF	0.778	JB	0.0267	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.517	JB	0.0223	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.158	JB	0.00897	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0575	JB	0.0149	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0486	JB	0.0226	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0683	JB	0.0137	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0809	JBQ	0.0215	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0584	JB	0.0119	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0726	JB	0.0214	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0388	JB	0.0153	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0322	JBQ	0.0268	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0235	JB	0.0136	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0956	JB	0.0123	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0461	JBQ	0.0130	MDL	5.24	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0414	JQ	0.0267	MDL	1.05	PQL	ng/Kg	J	Z
OCDD	1.16	JB	0.0255	MDL	10.5	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-261-SA5A-SB-8.5-9.5 *Collected:* 2/15/2012 4:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.277	JB	0.0274	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-323-SA6-SB-23.0-24.0 *Collected:* 2/20/2012 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
1,2,3,4,6,7,8-HPCDD	0.967	JB	0.0210	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.199	JBQ	0.00981	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0747	JBQ	0.0188	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0623	JB	0.0108	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0459	JB	0.0200	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0258	JBQ	0.00886	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0566	JB	0.0195	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0417	JBQ	0.0131	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0434	JB	0.0193	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.00904	JBQ	0.00876	MDL	5.25	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0600	JBQ	0.0105	MDL	5.25	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0548	JBQ	0.00928	MDL	5.25	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0270	JB	0.0207	MDL	1.05	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0259	JBQ	0.0164	MDL	1.05	PQL	ng/Kg	U	B
OCDD	8.29	JB	0.0171	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.315	JB	0.0216	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-324-SA6-SB-25.0-26.0 *Collected:* 2/16/2012 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.398	JB	0.0213	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.155	JB	0.00913	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0606	JB	0.0176	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0367	JB	0.0206	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0513	JB	0.0129	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0452	JB	0.0227	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0483	JB	0.0112	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0844	JB	0.0216	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0593	JBQ	0.0163	MDL	5.47	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0596	JBQ	0.0267	MDL	5.47	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-324-SA6-SB-25.0-26.0 *Collected:* 2/16/2012 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.0427	JB	0.0121	MDL	5.47	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0720	JBQ	0.0125	MDL	5.47	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0409	JBQ	0.0131	MDL	5.47	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0304	JB	0.0286	MDL	1.09	PQL	ng/Kg	U	B
OCDD	0.902	JB	0.0194	MDL	10.9	PQL	ng/Kg	U	B
OCDF	0.215	JB	0.0215	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-325-SA6-SB-22.0-23.0 *Collected:* 2/17/2012 11:45:00 *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	0.852	JB	0.0281	MDL	6.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	6.11	JB	0.0680	MDL	6.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.642	JB	0.0289	MDL	6.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.711	JB	0.0283	MDL	6.22	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.170	JBQ	0.0213	MDL	6.22	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	1.11	JB	0.0269	MDL	6.22	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.492	JB	0.0207	MDL	6.22	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.306	J	0.0364	MDL	1.24	PQL	ng/Kg	J	Z

Sample ID: SL-325-SA6-SB-26.0-27.0 *Collected:* 2/17/2012 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.786	JBQ	0.0266	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.199	JB	0.0127	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0603	JB	0.0227	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0569	JB	0.0247	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0807	JBQ	0.0168	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.107	JB	0.0260	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0847	JBQ	0.0130	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.139	JB	0.0255	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0346	JBQ	0.0170	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.114	JBQ	0.0286	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0980	JBQ	0.0149	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0760	JBQ	0.0133	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.140	JBQ	0.0144	MDL	5.37	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-325-SA6-SB-26.0-27.0 **Collected:** 2/17/2012 12:20:00 **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-TCDD	0.0390	JQ	0.0338	MDL	1.07	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0323	JQ	0.0298	MDL	1.07	PQL	ng/Kg	J	Z
OCDD	2.18	JB	0.0270	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.220	JB	0.0248	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-326-SA6-SB-23.0-24.0 **Collected:** 2/17/2012 8:55:00 **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-HPCDD	2.46	JB	0.0240	MDL	5.37	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.378	JBQ	0.0143	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0992	JBQ	0.0221	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0626	JBQ	0.0243	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0917	JBQ	0.0215	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.153	JB	0.0269	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0608	JBQ	0.0190	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0971	JBQ	0.0253	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0367	JBQ	0.0226	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0451	JBQ	0.0149	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.122	JB	0.0207	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0994	JBQ	0.0154	MDL	5.37	PQL	ng/Kg	U	B
OCDF	0.612	JB	0.0229	MDL	10.7	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: PrepDX158 **eQAPP Name: CDM_SSFL_120718_Lan**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DX158

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK0530B370307	2/28/2012 3:07:00 AM	1,2,3,4,6,7,8-HPCDD	4.04 pg/L	EB-SA5C-SB-021512
		1,2,3,4,6,7,8-HPCDF	1.49 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.685 pg/L	
		1,2,3,4,7,8-HxCDD	0.365 pg/L	
		1,2,3,4,7,8-HXCDF	0.642 pg/L	
		1,2,3,6,7,8-HXCDD	0.704 pg/L	
		1,2,3,6,7,8-HXCDF	0.405 pg/L	
		1,2,3,7,8,9-HXCDD	0.491 pg/L	
		1,2,3,7,8,9-HXCDF	0.757 pg/L	
		1,2,3,7,8-PECDD	0.299 pg/L	
		1,2,3,7,8-PECDF	0.352 pg/L	
		2,3,4,6,7,8-HXCDF	0.494 pg/L	
		2,3,4,7,8-PECDF	0.874 pg/L	
		2,3,7,8-TCDF	0.262 pg/L	
		OCDD	7.80 pg/L	
		OCDF	1.68 pg/L	
BLK0550B370403	2/28/2012 4:03:00 AM	1,2,3,4,6,7,8-HPCDD	4.12 pg/L	EB-SA7-SB-022212
		1,2,3,4,6,7,8-HPCDF	2.96 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.798 pg/L	
		1,2,3,4,7,8-HxCDD	0.335 pg/L	
		1,2,3,4,7,8-HXCDF	0.672 pg/L	
		1,2,3,6,7,8-HXCDD	0.646 pg/L	
		1,2,3,6,7,8-HXCDF	0.559 pg/L	
		1,2,3,7,8,9-HXCDD	0.725 pg/L	
		1,2,3,7,8,9-HXCDF	0.470 pg/L	
		1,2,3,7,8-PECDD	0.559 pg/L	
		1,2,3,7,8-PECDF	0.227 pg/L	
		2,3,4,6,7,8-HXCDF	0.885 pg/L	
		2,3,4,7,8-PECDF	0.937 pg/L	
		2,3,7,8-TCDF	0.300 pg/L	
		OCDD	9.54 pg/L	
		OCDF	2.04 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-SA5C-SB-021512(RES)	1,2,3,4,6,7,8-HPCDD	4.73 pg/L	4.73U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,4,6,7,8-HPCDF	1.56 pg/L	1.56U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,4,7,8,9-HPCDF	0.416 pg/L	0.416U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,4,7,8-HxCDD	0.472 pg/L	0.472U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,4,7,8-HXCDF	0.415 pg/L	0.415U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,6,7,8-HXCDD	0.576 pg/L	0.576U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,6,7,8-HXCDF	0.309 pg/L	0.309U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,7,8,9-HXCDD	0.518 pg/L	0.518U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,7,8,9-HXCDF	0.337 pg/L	0.337U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,7,8-PECDD	0.314 pg/L	0.314U pg/L
EB-SA5C-SB-021512(RES)	1,2,3,7,8-PECDF	0.183 pg/L	0.183U pg/L
EB-SA5C-SB-021512(RES)	2,3,4,6,7,8-HXCDF	0.602 pg/L	0.602U pg/L
EB-SA5C-SB-021512(RES)	2,3,4,7,8-PECDF	0.683 pg/L	0.683U pg/L
EB-SA5C-SB-021512(RES)	OCDD	7.75 pg/L	7.75U pg/L
EB-SA5C-SB-021512(RES)	OCDF	1.74 pg/L	1.74U pg/L
EB-SA7-SB-022212(RES)	1,2,3,4,6,7,8-HPCDD	4.44 pg/L	4.44U pg/L
EB-SA7-SB-022212(RES)	1,2,3,4,6,7,8-HPCDF	3.52 pg/L	3.52U pg/L
EB-SA7-SB-022212(RES)	1,2,3,4,7,8,9-HPCDF	0.698 pg/L	0.698U pg/L
EB-SA7-SB-022212(RES)	1,2,3,4,7,8-HxCDD	0.308 pg/L	0.308U pg/L

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B
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
EB-SA7-SB-022212(RES)	1,2,3,4,7,8-HXCDF	0.607 pg/L	0.607U pg/L
EB-SA7-SB-022212(RES)	1,2,3,6,7,8-HXCDD	0.503 pg/L	0.503U pg/L
EB-SA7-SB-022212(RES)	1,2,3,6,7,8-HXCDF	0.589 pg/L	0.589U pg/L
EB-SA7-SB-022212(RES)	1,2,3,7,8,9-HXCDD	0.399 pg/L	0.399U pg/L
EB-SA7-SB-022212(RES)	1,2,3,7,8,9-HXCDF	0.334 pg/L	0.334U pg/L
EB-SA7-SB-022212(RES)	1,2,3,7,8-PECDF	0.312 pg/L	0.312U pg/L
EB-SA7-SB-022212(RES)	2,3,4,6,7,8-HXCDF	0.718 pg/L	0.718U pg/L
EB-SA7-SB-022212(RES)	2,3,4,7,8-PECDF	0.532 pg/L	0.532U pg/L
EB-SA7-SB-022212(RES)	OCDD	7.79 pg/L	7.79U pg/L
EB-SA7-SB-022212(RES)	OCDF	2.04 pg/L	2.04U pg/L

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK0510B371948	2/21/2012 7:48:00 PM	1,2,3,4,6,7,8-HPCDD	0.402 ng/Kg	SL-146-SA5C-SB-47.5-48.5
		1,2,3,4,6,7,8-HPCDF	0.186 ng/Kg	SL-147-SA5C-SB-40.0-41.0
		1,2,3,4,7,8,9-HPCDF	0.0572 ng/Kg	SL-147-SA5C-SB-55.0-56.0
		1,2,3,4,7,8-HxCDD	0.0412 ng/Kg	SL-148-SA5C-SB-40.0-41.0
		1,2,3,4,7,8-HXCDF	0.0640 ng/Kg	SL-260-SA5A-SB-5.5-6.6
		1,2,3,6,7,8-HXCDD	0.0525 ng/Kg	SL-261-SA5A-SB-8.5-9.5
		1,2,3,6,7,8-HXCDF	0.0481 ng/Kg	SL-325-SA6-SB-22.0-23.0
		1,2,3,7,8,9-HXCDD	0.0889 ng/Kg	SL-325-SA6-SB-26.0-27.0
		1,2,3,7,8,9-HXCDF	0.0621 ng/Kg	
		1,2,3,7,8-PECDD	0.0634 ng/Kg	
		1,2,3,7,8-PECDF	0.0370 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0644 ng/Kg	
		2,3,4,7,8-PECDF	0.0826 ng/Kg	
		OCDD	0.612 ng/Kg	
		OCDF	0.220 ng/Kg	
BLK0550B371246	2/28/2012 12:46:00 PM	1,2,3,4,6,7,8-HPCDD	0.340 ng/Kg	DUP10-SA7-QC-022112
		1,2,3,4,6,7,8-HPCDF	0.161 ng/Kg	SL-186-SA7-SB-27.0-28.0
		1,2,3,4,7,8,9-HPCDF	0.0824 ng/Kg	SL-187-SA7-SB-27.5-28.5
		1,2,3,4,7,8-HxCDD	0.0412 ng/Kg	SL-188-SA7-SB-18.5-19.5
		1,2,3,4,7,8-HXCDF	0.0922 ng/Kg	SL-188-SA7-SB-22.0-23.0
		1,2,3,6,7,8-HXCDD	0.0496 ng/Kg	SL-323-SA6-SB-23.0-24.0
		1,2,3,6,7,8-HXCDF	0.0562 ng/Kg	SL-324-SA6-SB-25.0-26.0
		1,2,3,7,8,9-HXCDD	0.0827 ng/Kg	SL-326-SA6-SB-23.0-24.0
		1,2,3,7,8,9-HXCDF	0.0757 ng/Kg	
		1,2,3,7,8-PECDD	0.0491 ng/Kg	
		1,2,3,7,8-PECDF	0.0597 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0761 ng/Kg	
		2,3,4,7,8-PECDF	0.0791 ng/Kg	
		2,3,7,8-TCDD	0.0398 ng/Kg	
		2,3,7,8-TCDF	0.0329 ng/Kg	
		OCDD	0.648 ng/Kg	
		OCDF	0.231 ng/Kg	

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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
DUP10-SA7-QC-022112(RES)	1,2,3,4,6,7,8-HPCDD	0.402 ng/Kg	0.402U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,4,6,7,8-HPCDF	0.218 ng/Kg	0.218U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,4,7,8,9-HPCDF	0.0928 ng/Kg	0.0928U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,4,7,8-HxCDD	0.0397 ng/Kg	0.0397U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,4,7,8-HXCDF	0.116 ng/Kg	0.116U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,6,7,8-HXCDD	0.0839 ng/Kg	0.0839U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,6,7,8-HXCDF	0.0722 ng/Kg	0.0722U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,7,8,9-HXCDD	0.0849 ng/Kg	0.0849U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,7,8,9-HXCDF	0.105 ng/Kg	0.105U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,7,8-PECDD	0.201 ng/Kg	0.201U ng/Kg
DUP10-SA7-QC-022112(RES)	1,2,3,7,8-PECDF	0.161 ng/Kg	0.161U ng/Kg
DUP10-SA7-QC-022112(RES)	2,3,4,6,7,8-HXCDF	0.111 ng/Kg	0.111U ng/Kg
DUP10-SA7-QC-022112(RES)	2,3,4,7,8-PECDF	0.156 ng/Kg	0.156U ng/Kg
DUP10-SA7-QC-022112(RES)	2,3,7,8-TCDD	0.0453 ng/Kg	0.0453U ng/Kg
DUP10-SA7-QC-022112(RES)	2,3,7,8-TCDF	0.0411 ng/Kg	0.0411U ng/Kg
DUP10-SA7-QC-022112(RES)	OCDD	0.820 ng/Kg	0.820U ng/Kg
DUP10-SA7-QC-022112(RES)	OCDF	0.275 ng/Kg	0.275U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,4,6,7,8-HPCDF	0.856 ng/Kg	0.856U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,4,7,8,9-HPCDF	0.127 ng/Kg	0.127U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,4,7,8-HxCDD	0.0863 ng/Kg	0.0863U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,4,7,8-HXCDF	0.104 ng/Kg	0.104U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,6,7,8-HXCDF	0.104 ng/Kg	0.104U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,7,8,9-HXCDD	0.147 ng/Kg	0.147U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,7,8,9-HXCDF	0.0459 ng/Kg	0.0459U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,7,8-PECDD	0.0666 ng/Kg	0.0666U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	1,2,3,7,8-PECDF	0.0351 ng/Kg	0.0351U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	2,3,4,6,7,8-HXCDF	0.130 ng/Kg	0.130U ng/Kg
SL-146-SA5C-SB-47.5-48.5(RES)	2,3,4,7,8-PECDF	0.124 ng/Kg	0.124U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,4,6,7,8-HPCDF	0.542 ng/Kg	0.542U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0986 ng/Kg	0.0986U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8-HxCDD	0.0592 ng/Kg	0.0592U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8-HXCDF	0.109 ng/Kg	0.109U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,6,7,8-HXCDD	0.199 ng/Kg	0.199U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,6,7,8-HXCDF	0.0892 ng/Kg	0.0892U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8,9-HXCDD	0.150 ng/Kg	0.150U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8,9-HXCDF	0.109 ng/Kg	0.109U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8-PECDD	0.0465 ng/Kg	0.0465U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8-PECDF	0.0576 ng/Kg	0.0576U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	2,3,4,6,7,8-HXCDF	0.129 ng/Kg	0.129U ng/Kg
SL-147-SA5C-SB-40.0-41.0(RES)	2,3,4,7,8-PECDF	0.145 ng/Kg	0.145U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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-147-SA5C-SB-40.0-41.0(RES)	OCDF	0.924 ng/Kg	0.924U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,4,6,7,8-HPCDF	0.581 ng/Kg	0.581U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,4,7,8,9-HPCDF	0.153 ng/Kg	0.153U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,4,7,8-HxCDD	0.0724 ng/Kg	0.0724U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,4,7,8-HXCDF	0.190 ng/Kg	0.190U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,6,7,8-HXCDD	0.160 ng/Kg	0.160U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,6,7,8-HXCDF	0.146 ng/Kg	0.146U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,7,8,9-HXCDD	0.116 ng/Kg	0.116U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,7,8,9-HXCDF	0.116 ng/Kg	0.116U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,7,8-PECDD	0.0566 ng/Kg	0.0566U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	1,2,3,7,8-PECDF	0.0721 ng/Kg	0.0721U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	2,3,4,6,7,8-HXCDF	0.170 ng/Kg	0.170U ng/Kg
SL-147-SA5C-SB-55.0-56.0(RES)	2,3,4,7,8-PECDF	0.158 ng/Kg	0.158U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,4,6,7,8-HPCDF	0.556 ng/Kg	0.556U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0739 ng/Kg	0.0739U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8-HxCDD	0.0445 ng/Kg	0.0445U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,4,7,8-HXCDF	0.0867 ng/Kg	0.0867U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,6,7,8-HXCDD	0.157 ng/Kg	0.157U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,6,7,8-HXCDF	0.0721 ng/Kg	0.0721U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8,9-HXCDD	0.0920 ng/Kg	0.0920U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8,9-HXCDF	0.0818 ng/Kg	0.0818U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8-PECDD	0.0513 ng/Kg	0.0513U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	1,2,3,7,8-PECDF	0.0776 ng/Kg	0.0776U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	2,3,4,6,7,8-HXCDF	0.122 ng/Kg	0.122U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	2,3,4,7,8-PECDF	0.149 ng/Kg	0.149U ng/Kg
SL-148-SA5C-SB-40.0-41.0(RES)	OCDF	1.00 ng/Kg	1.00U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,4,6,7,8-HPCDD	0.254 ng/Kg	0.254U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,4,6,7,8-HPCDF	0.186 ng/Kg	0.186U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0622 ng/Kg	0.0622U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,4,7,8-HxCDD	0.0196 ng/Kg	0.0196U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,4,7,8-HXCDF	0.0659 ng/Kg	0.0659U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,6,7,8-HXCDD	0.0426 ng/Kg	0.0426U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,6,7,8-HXCDF	0.0405 ng/Kg	0.0405U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,7,8,9-HXCDF	0.0692 ng/Kg	0.0692U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,7,8-PECDD	0.0230 ng/Kg	0.0230U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	1,2,3,7,8-PECDF	0.0374 ng/Kg	0.0374U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	2,3,4,6,7,8-HXCDF	0.0941 ng/Kg	0.0941U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	2,3,4,7,8-PECDF	0.0708 ng/Kg	0.0708U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	2,3,7,8-TCDF	0.0217 ng/Kg	0.0217U ng/Kg
SL-186-SA7-SB-27.0-28.0(RES)	OCDD	0.537 ng/Kg	0.537U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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-186-SA7-SB-27.0-28.0(RES)	OCDF	0.246 ng/Kg	0.246U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,4,6,7,8-HPCDD	0.528 ng/Kg	0.528U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,4,6,7,8-HPCDF	0.179 ng/Kg	0.179U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0716 ng/Kg	0.0716U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,4,7,8-HxCDD	0.0361 ng/Kg	0.0361U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,4,7,8-HXCDF	0.0669 ng/Kg	0.0669U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,6,7,8-HXCDD	0.0566 ng/Kg	0.0566U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,6,7,8-HXCDF	0.0375 ng/Kg	0.0375U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,7,8,9-HXCDD	0.0568 ng/Kg	0.0568U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,7,8,9-HXCDF	0.0430 ng/Kg	0.0430U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,7,8-PECDD	0.0401 ng/Kg	0.0401U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	1,2,3,7,8-PECDF	0.0297 ng/Kg	0.0297U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	2,3,4,6,7,8-HXCDF	0.0590 ng/Kg	0.0590U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	2,3,4,7,8-PECDF	0.0671 ng/Kg	0.0671U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	OCDD	2.56 ng/Kg	2.56U ng/Kg
SL-187-SA7-SB-27.5-28.5(RES)	OCDF	0.285 ng/Kg	0.285U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,4,6,7,8-HPCDF	0.675 ng/Kg	0.675U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,4,7,8,9-HPCDF	0.101 ng/Kg	0.101U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,4,7,8-HxCDD	0.123 ng/Kg	0.123U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,4,7,8-HXCDF	0.120 ng/Kg	0.120U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,6,7,8-HXCDF	0.135 ng/Kg	0.135U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,7,8,9-HXCDD	0.243 ng/Kg	0.243U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,7,8-PECDD	0.106 ng/Kg	0.106U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	1,2,3,7,8-PECDF	0.178 ng/Kg	0.178U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	2,3,4,6,7,8-HXCDF	0.129 ng/Kg	0.129U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	2,3,4,7,8-PECDF	0.174 ng/Kg	0.174U ng/Kg
SL-188-SA7-SB-18.5-19.5(RES)	2,3,7,8-TCDD	0.0740 ng/Kg	0.0740U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,4,6,7,8-HPCDD	0.371 ng/Kg	0.371U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,4,6,7,8-HPCDF	0.207 ng/Kg	0.207U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0825 ng/Kg	0.0825U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,4,7,8-HxCDD	0.0498 ng/Kg	0.0498U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,4,7,8-HXCDF	0.120 ng/Kg	0.120U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,6,7,8-HXCDD	0.0776 ng/Kg	0.0776U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,6,7,8-HXCDF	0.0832 ng/Kg	0.0832U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,7,8,9-HXCDD	0.0948 ng/Kg	0.0948U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,7,8-PECDD	0.146 ng/Kg	0.146U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	1,2,3,7,8-PECDF	0.130 ng/Kg	0.130U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	2,3,4,6,7,8-HXCDF	0.116 ng/Kg	0.116U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	2,3,4,7,8-PECDF	0.147 ng/Kg	0.147U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	2,3,7,8-TCDD	0.0591 ng/Kg	0.0591U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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-188-SA7-SB-22.0-23.0(RES)	2,3,7,8-TCDF	0.0436 ng/Kg	0.0436U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	OCDD	0.683 ng/Kg	0.683U ng/Kg
SL-188-SA7-SB-22.0-23.0(RES)	OCDF	0.262 ng/Kg	0.262U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,4,6,7,8-HPCDD	1.31 ng/Kg	1.31U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,4,6,7,8-HPCDF	0.362 ng/Kg	0.362U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,4,7,8,9-HPCDF	0.0803 ng/Kg	0.0803U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,4,7,8-HxCDD	0.0533 ng/Kg	0.0533U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,4,7,8-HXCDF	0.101 ng/Kg	0.101U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,6,7,8-HXCDD	0.0929 ng/Kg	0.0929U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,6,7,8-HXCDF	0.0735 ng/Kg	0.0735U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,7,8,9-HXCDD	0.107 ng/Kg	0.107U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,7,8,9-HXCDF	0.0948 ng/Kg	0.0948U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,7,8-PECDD	0.0412 ng/Kg	0.0412U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	1,2,3,7,8-PECDF	0.0357 ng/Kg	0.0357U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	2,3,4,6,7,8-HXCDF	0.105 ng/Kg	0.105U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	2,3,4,7,8-PECDF	0.0584 ng/Kg	0.0584U ng/Kg
SL-260-SA5A-SB-5.5-6.6(RES)	OCDF	0.778 ng/Kg	0.778U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,4,6,7,8-HPCDD	0.517 ng/Kg	0.517U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,4,6,7,8-HPCDF	0.158 ng/Kg	0.158U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0575 ng/Kg	0.0575U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,4,7,8-HxCDD	0.0486 ng/Kg	0.0486U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,4,7,8-HXCDF	0.0683 ng/Kg	0.0683U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,6,7,8-HXCDD	0.0809 ng/Kg	0.0809U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,6,7,8-HXCDF	0.0584 ng/Kg	0.0584U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,7,8,9-HXCDD	0.0726 ng/Kg	0.0726U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,7,8,9-HXCDF	0.0388 ng/Kg	0.0388U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,7,8-PECDD	0.0322 ng/Kg	0.0322U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	1,2,3,7,8-PECDF	0.0235 ng/Kg	0.0235U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	2,3,4,6,7,8-HXCDF	0.0956 ng/Kg	0.0956U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	2,3,4,7,8-PECDF	0.0461 ng/Kg	0.0461U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	OCDD	1.16 ng/Kg	1.16U ng/Kg
SL-261-SA5A-SB-8.5-9.5(RES)	OCDF	0.277 ng/Kg	0.277U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,4,6,7,8-HPCDD	0.967 ng/Kg	0.967U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,4,6,7,8-HPCDF	0.199 ng/Kg	0.199U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0747 ng/Kg	0.0747U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,4,7,8-HXCDF	0.0623 ng/Kg	0.0623U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,6,7,8-HXCDD	0.0459 ng/Kg	0.0459U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,6,7,8-HXCDF	0.0258 ng/Kg	0.0258U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,7,8,9-HXCDD	0.0566 ng/Kg	0.0566U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,7,8,9-HXCDF	0.0417 ng/Kg	0.0417U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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-323-SA6-SB-23.0-24.0(RES)	1,2,3,7,8-PECDD	0.0434 ng/Kg	0.0434U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	1,2,3,7,8-PECDF	0.00904 ng/Kg	0.00904U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	2,3,4,6,7,8-HXCDF	0.0600 ng/Kg	0.0600U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	2,3,4,7,8-PECDF	0.0548 ng/Kg	0.0548U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	2,3,7,8-TCDD	0.0270 ng/Kg	0.0270U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	2,3,7,8-TCDF	0.0259 ng/Kg	0.0259U ng/Kg
SL-323-SA6-SB-23.0-24.0(RES)	OCDF	0.315 ng/Kg	0.315U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,4,6,7,8-HPCDD	0.398 ng/Kg	0.398U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,4,6,7,8-HPCDF	0.155 ng/Kg	0.155U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0606 ng/Kg	0.0606U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,4,7,8-HxCDD	0.0367 ng/Kg	0.0367U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,4,7,8-HXCDF	0.0513 ng/Kg	0.0513U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,6,7,8-HXCDD	0.0452 ng/Kg	0.0452U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,6,7,8-HXCDF	0.0483 ng/Kg	0.0483U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,7,8,9-HXCDD	0.0844 ng/Kg	0.0844U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,7,8,9-HXCDF	0.0593 ng/Kg	0.0593U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,7,8-PECDD	0.0596 ng/Kg	0.0596U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	1,2,3,7,8-PECDF	0.0427 ng/Kg	0.0427U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	2,3,4,6,7,8-HXCDF	0.0720 ng/Kg	0.0720U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	2,3,4,7,8-PECDF	0.0409 ng/Kg	0.0409U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	2,3,7,8-TCDD	0.0304 ng/Kg	0.0304U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	OCDD	0.902 ng/Kg	0.902U ng/Kg
SL-324-SA6-SB-25.0-26.0(RES)	OCDF	0.215 ng/Kg	0.215U ng/Kg
SL-325-SA6-SB-22.0-23.0(RES)	1,2,3,7,8-PECDF	0.170 ng/Kg	0.170U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,4,6,7,8-HPCDD	0.786 ng/Kg	0.786U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,4,6,7,8-HPCDF	0.199 ng/Kg	0.199U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0603 ng/Kg	0.0603U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,4,7,8-HxCDD	0.0569 ng/Kg	0.0569U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,4,7,8-HXCDF	0.0807 ng/Kg	0.0807U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,6,7,8-HXCDD	0.107 ng/Kg	0.107U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,6,7,8-HXCDF	0.0847 ng/Kg	0.0847U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,7,8,9-HXCDD	0.139 ng/Kg	0.139U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,7,8,9-HXCDF	0.0346 ng/Kg	0.0346U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,7,8-PECDD	0.114 ng/Kg	0.114U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	1,2,3,7,8-PECDF	0.0980 ng/Kg	0.0980U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	2,3,4,6,7,8-HXCDF	0.0760 ng/Kg	0.0760U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	2,3,4,7,8-PECDF	0.140 ng/Kg	0.140U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	OCDD	2.18 ng/Kg	2.18U ng/Kg
SL-325-SA6-SB-26.0-27.0(RES)	OCDF	0.220 ng/Kg	0.220U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,4,6,7,8-HPCDF	0.378 ng/Kg	0.378U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_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-326-SA6-SB-23.0-24.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0992 ng/Kg	0.0992U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,4,7,8-HxCDD	0.0626 ng/Kg	0.0626U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,4,7,8-HXCDF	0.0917 ng/Kg	0.0917U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,6,7,8-HXCDD	0.153 ng/Kg	0.153U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,6,7,8-HXCDF	0.0608 ng/Kg	0.0608U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,7,8,9-HXCDD	0.0971 ng/Kg	0.0971U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,7,8,9-HXCDF	0.0367 ng/Kg	0.0367U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	1,2,3,7,8-PECDF	0.0451 ng/Kg	0.0451U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	2,3,4,6,7,8-HXCDF	0.122 ng/Kg	0.122U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	2,3,4,7,8-PECDF	0.0994 ng/Kg	0.0994U ng/Kg
SL-326-SA6-SB-23.0-24.0(RES)	OCDF	0.612 ng/Kg	0.612U ng/Kg

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5C-SB-021512	1,2,3,4,6,7,8-HPCDD	JB	4.73	10.8	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JBQ	1.56	10.8	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.416	10.8	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JBQ	0.472	10.8	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.415	10.8	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.576	10.8	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.309	10.8	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.518	10.8	PQL	pg/L	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.337	10.8	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	0.314	10.8	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.183	10.8	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.602	10.8	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.683	10.8	PQL	pg/L	
	OCDD	JB	7.75	21.7	PQL	pg/L	
	OCDF	JB	1.74	21.7	PQL	pg/L	
EB-SA7-SB-022212	1,2,3,4,6,7,8-HPCDD	JB	4.44	10.2	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JB	3.52	10.2	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.698	10.2	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JBQ	0.308	10.2	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JB	0.607	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JB	0.503	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JB	0.589	10.2	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.399	10.2	PQL	pg/L	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.334	10.2	PQL	pg/L	
	1,2,3,7,8-PECDF	JB	0.312	10.2	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.718	10.2	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.532	10.2	PQL	pg/L	
	2,3,7,8-TCDD	JQ	0.321	2.03	PQL	pg/L	
	OCDD	JB	7.79	20.3	PQL	pg/L	
	OCDF	JB	2.04	20.3	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA7-QC-022112	1,2,3,4,6,7,8-HPCDD	JBQ	0.402	5.31	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.218	5.31	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0928	5.31	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0397	5.31	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.116	5.31	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0839	5.31	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0722	5.31	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0849	5.31	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.105	5.31	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.201	5.31	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.161	5.31	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.111	5.31	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.156	5.31	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0453	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	JBQ	0.0411	1.06	PQL	ng/Kg	
	OCDD	JB	0.820	10.6	PQL	ng/Kg	
	OCDF	JB	0.275	10.6	PQL	ng/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5C-SB-47.5-48.5	1,2,3,4,6,7,8-HPCDF	JB	0.856	5.53	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.127	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0863	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.104	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.342	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.104	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.147	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0459	5.53	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0666	5.53	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0351	5.53	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.130	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.124	5.53	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0363	1.11	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0447	1.11	PQL	ng/Kg	
	OCDF	JB	2.39	11.1	PQL	ng/Kg	
SL-147-SA5C-SB-40.0-41.0	1,2,3,4,6,7,8-HPCDD	JB	3.74	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.542	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0986	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0592	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.109	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.199	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0892	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.150	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.109	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0465	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0576	5.52	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.129	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.145	5.52	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0455	1.10	PQL	ng/Kg	
	OCDF	JB	0.924	11.0	PQL	ng/Kg	
SL-147-SA5C-SB-55.0-56.0	1,2,3,4,6,7,8-HPCDD	JB	4.50	5.58	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.581	5.58	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.153	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0724	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.190	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.160	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.146	5.58	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.116	5.58	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.116	5.58	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0566	5.58	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0721	5.58	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.170	5.58	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.158	5.58	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0393	1.12	PQL	ng/Kg	
	OCDF	JB	1.20	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA5C-SB-40.0-41.0	1,2,3,4,6,7,8-HPCDD	JB	3.62	5.32	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.556	5.32	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0739	5.32	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0445	5.32	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0867	5.32	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.157	5.32	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0721	5.32	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0920	5.32	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0818	5.32	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0513	5.32	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0776	5.32	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.122	5.32	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.149	5.32	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0368	1.06	PQL	ng/Kg	
	OCDF	JB	1.00	10.6	PQL	ng/Kg	
SL-186-SA7-SB-27.0-28.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.254	5.35	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.186	5.35	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0622	5.35	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0196	5.35	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0659	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0426	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0405	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0692	5.35	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0230	5.35	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0374	5.35	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0941	5.35	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0708	5.35	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.0217	1.07	PQL	ng/Kg	
	OCDD	JB	0.537	10.7	PQL	ng/Kg	
	OCDF	JBQ	0.246	10.7	PQL	ng/Kg	
SL-187-SA7-SB-27.5-28.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.528	5.26	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.179	5.26	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0716	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0361	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0669	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0566	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0375	5.26	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0568	5.26	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0430	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0401	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0297	5.26	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0590	5.26	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0671	5.26	PQL	ng/Kg	
	OCDD	JB	2.56	10.5	PQL	ng/Kg	
	OCDF	JBQ	0.285	10.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-188-SA7-SB-18.5-19.5	1,2,3,4,6,7,8-HPCDF	JBQ	0.675	5.23	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.101	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.123	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.120	5.23	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.259	5.23	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.135	5.23	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.243	5.23	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.106	5.23	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.178	5.23	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.129	5.23	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.174	5.23	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0740	1.05	PQL	ng/Kg	
	OCDF	JB	1.20	10.5	PQL	ng/Kg	
SL-188-SA7-SB-22.0-23.0	1,2,3,4,6,7,8-HPCDD	JB	0.371	5.00	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.207	5.00	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0825	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0498	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.120	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0776	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0832	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0948	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.146	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.130	5.00	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.116	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.147	5.00	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0591	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	JBQ	0.0436	1.00	PQL	ng/Kg	
	OCDD	JB	0.683	10.0	PQL	ng/Kg	
	OCDF	JB	0.262	10.0	PQL	ng/Kg	
SL-260-SA5A-SB-5.5-6.6	1,2,3,4,6,7,8-HPCDD	JB	1.31	5.43	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.362	5.43	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0803	5.43	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0533	5.43	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.101	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0929	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0735	5.43	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.107	5.43	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0948	5.43	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0412	5.43	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0357	5.43	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.105	5.43	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0584	5.43	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0341	1.09	PQL	ng/Kg	
	OCDF	JB	0.778	10.9	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-261-SA5A-SB-8.5-9.5	1,2,3,4,6,7,8-HPCDD	JB	0.517	5.24	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.158	5.24	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0575	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0486	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0683	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0809	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0584	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0726	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0388	5.24	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0322	5.24	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0235	5.24	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0956	5.24	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0461	5.24	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0414	1.05	PQL	ng/Kg	
	OCDD	JB	1.16	10.5	PQL	ng/Kg	
	OCDF	JB	0.277	10.5	PQL	ng/Kg	
SL-323-SA6-SB-23.0-24.0	1,2,3,4,6,7,8-HPCDD	JB	0.967	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.199	5.25	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0747	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0623	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0459	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0258	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0566	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0417	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0434	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.00904	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0600	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0548	5.25	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0270	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	JBQ	0.0259	1.05	PQL	ng/Kg	
	OCDD	JB	8.29	10.5	PQL	ng/Kg	
	OCDF	JB	0.315	10.5	PQL	ng/Kg	
SL-324-SA6-SB-25.0-26.0	1,2,3,4,6,7,8-HPCDD	JB	0.398	5.47	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.155	5.47	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0606	5.47	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0367	5.47	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0513	5.47	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0452	5.47	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0483	5.47	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0844	5.47	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0593	5.47	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0596	5.47	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0427	5.47	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0720	5.47	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0409	5.47	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0304	1.09	PQL	ng/Kg	
	OCDD	JB	0.902	10.9	PQL	ng/Kg	
	OCDF	JB	0.215	10.9	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-325-SA6-SB-22.0-23.0	1,2,3,4,7,8,9-HPCDF	JB	0.852	6.22	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	6.11	6.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.642	6.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.711	6.22	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.170	6.22	PQL	ng/Kg	J (all detects)
	2,3,4,6,7,8-HXCDF	JB	1.11	6.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.492	6.22	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.306	1.24	PQL	ng/Kg	
SL-325-SA6-SB-26.0-27.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.786	5.37	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.199	5.37	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0603	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0569	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0807	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.107	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0847	5.37	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.139	5.37	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0346	5.37	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.114	5.37	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0980	5.37	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0760	5.37	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.140	5.37	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0390	1.07	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0323	1.07	PQL	ng/Kg	
	OCDD	JB	2.18	10.7	PQL	ng/Kg	
	OCDF	JB	0.220	10.7	PQL	ng/Kg	
SL-326-SA6-SB-23.0-24.0	1,2,3,4,6,7,8-HPCDD	JB	2.46	5.37	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.378	5.37	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0992	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0626	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0917	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.153	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0608	5.37	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JBQ	0.0971	5.37	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0367	5.37	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0451	5.37	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.122	5.37	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0994	5.37	PQL	ng/Kg	
	OCDF	JB	0.612	10.7	PQL	ng/Kg	

Field Duplicate RPD Report

Lab Reporting Batch ID: DX158 **Laboratory: LL**

EDD Filename: DX158_v1 **eQAPP Name: CDM_SSFL_120718_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
MOISTURE	6.6	6.7	2		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
1,2,3,4,6,7,8-HPCDD	0.254	0.402	45	50.00	
1,2,3,4,6,7,8-HPCDF	0.186	0.218	16	50.00	
1,2,3,4,7,8,9-HPCDF	0.0622	0.0928	39	50.00	
1,2,3,7,8,9-HXCDF	0.0692	0.105	41	50.00	No Qualifiers Applied
2,3,4,6,7,8-HXCDF	0.0941	0.111	16	50.00	
OCDD	0.537	0.820	42	50.00	
OCDF	0.246	0.275	11	50.00	
1,2,3,4,7,8-HxCDD	0.0196	0.0397	68	50.00	
1,2,3,4,7,8-HXCDF	0.0659	0.116	55	50.00	
1,2,3,6,7,8-HXCDD	0.0426	0.0839	65	50.00	
1,2,3,6,7,8-HXCDF	0.0405	0.0722	56	50.00	
1,2,3,7,8,9-HXCDD	0.0199 U	0.0849	200	50.00	J(all detects)
1,2,3,7,8-PECDD	0.0230	0.201	159	50.00	UJ(all non-detects)
1,2,3,7,8-PECDF	0.0374	0.161	125	50.00	
2,3,4,7,8-PECDF	0.0708	0.156	75	50.00	
2,3,7,8-TCDD	0.0273 U	0.0453	200	50.00	
2,3,7,8-TCDF	0.0217	0.0411	62	50.00	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: February 13 through February 22, 2012

LDC Report Date: July 31, 2012

Matrix: Soil/Water

Parameters: Dioxins/Dibenzofurans

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DX158

Sample Identification

SL-146-SA5C-SB-47.5-48.5
SL-147-SA5C-SB-55.0-56.0
SL-147-SA5C-SB-40.0-41.0
SL-148-SA5C-SB-40.0-41.0
EB-SA5C-SB-021512
SL-261-SA5A-SB-8.5-9.5
SL-260-SA5A-SB-5.5-6.6
SL-325-SA6-SB-22.0-23.0
SL-325-SA6-SB-26.0-27.0
SL-324-SA6-SB-25.0-26.0
SL-326-SA6-SB-23.0-24.0
SL-323-SA6-SB-23.0-24.0
SL-186-SA7-SB-27.0-28.0
SL-187-SA7-SB-27.5-28.5
SL-187-SA7-SB-27.5-28.5 MS
SL-187-SA7-SB-27.5-28.5 MSD
SL-188-SA7-SB-18.5-19.5
SL-188-SA7-SB-22.0-23.0
DUP10-SA7-QC-022112
EB-SA7-SB-022212

Introduction

This data review covers 18 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

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 the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

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. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 10 for each unlabeled compound and labeled compound.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration percent differences (%D) between the initial calibration RRF and the routine calibration RRF were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLKO55002	2/24/12	2,3,7,8-TCDF	0.0329 ng/Kg	SL-324-SA6-SB-25.0-26.0
		2,3,7,8-TCDD	0.0398 ng/Kg	SL-326-SA6-SB-23.0-24.0
		1,2,3,7,8-PeCDF	0.0597 ng/Kg	SL-323-SA6-SB-23.0-24.0
		2,3,4,7,8-PeCDF	0.0791 ng/Kg	SL-186-SA7-SB-27.0-28.0
		1,2,3,7,8-PeCDD	0.0491 ng/Kg	SL-187-SA7-SB-27.5-28.5
		1,2,3,4,7,8-HxCDF	0.0922 ng/Kg	SL-188-SA7-SB-18.5-19.5
		1,2,3,6,7,8-HxCDF	0.0562 ng/Kg	SL-188-SA7-SB-22.0-23.0
		2,3,4,6,7,8-HxCDF	0.0761 ng/Kg	DUP10-SA7-QC-022112
		1,2,3,4,7,8-HxCDD	0.0412 ng/Kg	
		1,2,3,6,7,8-HxCDD	0.0496 ng/Kg	
		1,2,3,7,8,9-HxCDD	0.0827 ng/Kg	
		1,2,3,7,8,9-HxCDF	0.0757 ng/Kg	
		1,2,3,4,6,7,8-HpCDF	0.161 ng/Kg	
		1,2,3,4,6,7,8-HpCDD	0.340 ng/Kg	
		1,2,3,4,7,8,9-HpCDF	0.0824 ng/Kg	
		OCDD	0.648 ng/Kg	
		OCDF	0.231 ng/Kg	
BLKO53002	2/22/12	2,3,7,8-TCDF	0.262 pg/L	EB-SA5C-SB-021512
		1,2,3,7,8-PeCDF	0.352 pg/L	
		2,3,4,7,8-PeCDF	0.874 pg/L	
		1,2,3,7,8-PeCDD	0.299 pg/L	
		1,2,3,4,7,8-HxCDF	0.642 pg/L	
		1,2,3,6,7,8-HxCDF	0.405 pg/L	
		2,3,4,6,7,8-HxCDF	0.494 pg/L	
		1,2,3,4,7,8-HxCDD	0.365 pg/L	
		1,2,3,6,7,8-HxCDD	0.704 pg/L	
		1,2,3,7,8,9-HxCDD	0.491 pg/L	
		1,2,3,7,8,9-HxCDF	0.757 pg/L	
		1,2,3,4,6,7,8-HpCDF	1.49 pg/L	
		1,2,3,4,6,7,8-HpCDD	4.04 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.685 pg/L	
		OCDD	7.80 pg/L	
		OCDF	1.68 pg/L	
BLKO51001	2/20/12	1,2,3,7,8-PeCDF	0.0370 ng/Kg	SL-146-SA5C-SB-47.5-48.5
		2,3,4,7,8-PeCDF	0.0826 ng/Kg	SL-147-SA5C-SB-55.0-56.0
		1,2,3,7,8-PeCDD	0.0634 ng/Kg	SL-147-SA5C-SB-40.0-41.0
		1,2,3,4,7,8-HxCDF	0.0640 ng/Kg	SL-148-SA5C-SB-40.0-41.0
		1,2,3,6,7,8-HxCDF	0.0481 ng/Kg	SL-261-SA5A-SB-8.5-9.5
		2,3,4,6,7,8-HxCDF	0.0644 ng/Kg	SL-260-SA5A-SB-5.5-6.6
		1,2,3,4,7,8-HxCDD	0.0412 ng/Kg	SL-325-SA6-SB-22.0-23.0
		1,2,3,6,7,8-HxCDD	0.0525 ng/Kg	SL-325-SA6-SB-26.0-27.0
		1,2,3,7,8,9-HxCDD	0.0889 ng/Kg	
		1,2,3,7,8,9-HxCDF	0.0621 ng/Kg	
		1,2,3,4,6,7,8-HpCDF	0.186 ng/Kg	
		1,2,3,4,6,7,8-HpCDD	0.402 ng/Kg	
		1,2,3,4,7,8,9-HpCDF	0.0572 ng/Kg	
		OCDD	0.612 ng/Kg	
		OCDF	0.220 ng/Kg	

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLKO55001	2/22/12	2,3,7,8-TCDF	0.300 pg/L	EB-SA7-SB-022212
		1,2,3,7,8-PeCDF	0.227 pg/L	
		2,3,4,7,8-PeCDF	0.937 pg/L	
		1,2,3,7,8-PeCDD	0.559 pg/L	
		1,2,3,4,7,8-HxCDF	0.672 pg/L	
		1,2,3,6,7,8-HxCDF	0.559 pg/L	
		2,3,4,6,7,8-HxCDF	0.885 pg/L	
		1,2,3,4,7,8-HxCDD	0.335 pg/L	
		1,2,3,6,7,8-HxCDD	0.646 pg/L	
		1,2,3,7,8,9-HxCDD	0.725 pg/L	
		1,2,3,7,8,9-HxCDF	0.470 pg/L	
		1,2,3,4,6,7,8-HpCDF	2.96 pg/L	
		1,2,3,4,6,7,8-HpCDD	4.12 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.798 pg/L	
		OCDD	9.54 pg/L	
		OCDF	2.04 pg/L	

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-324-SA6-SB-25.0-26.0	2,3,7,8-TCDD	0.0304 ng/Kg	0.0304U ng/Kg
	1,2,3,7,8-PeCDF	0.0427 ng/Kg	0.0427U ng/Kg
	2,3,4,7,8-PeCDF	0.0409 ng/Kg	0.0409U ng/Kg
	1,2,3,7,8-PeCDD	0.0596 ng/Kg	0.0596U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0513 ng/Kg	0.0513U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0483 ng/Kg	0.0483U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0720 ng/Kg	0.0720U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0367 ng/Kg	0.0367U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0452 ng/Kg	0.0452U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0844 ng/Kg	0.0844U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0593 ng/Kg	0.0593U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.155 ng/Kg	0.155U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.398 ng/Kg	0.398U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0606 ng/Kg	0.0606U ng/Kg
	OCDD	0.902 ng/Kg	0.902U ng/Kg
	OCDF	0.215 ng/Kg	0.215U ng/Kg
SL-326-SA6-SB-23.0-24.0	1,2,3,7,8-PeCDF	0.0451 ng/Kg	0.0451U ng/Kg
	2,3,4,7,8-PeCDF	0.0994 ng/Kg	0.0994U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0917 ng/Kg	0.0917U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0608 ng/Kg	0.0608U ng/Kg
	2,3,4,6,7,8-HxCDF	0.122 ng/Kg	0.122U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0626 ng/Kg	0.0626U ng/Kg
	1,2,3,6,7,8-HxCDD	0.153 ng/Kg	0.153U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0971 ng/Kg	0.0971U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0367 ng/Kg	0.0367U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.378 ng/Kg	0.378U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0992 ng/Kg	0.0992U ng/Kg
	OCDF	0.612 ng/Kg	0.612U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-323-SA6-SB-23.0-24.0	2,3,7,8-TCDF	0.0259 ng/Kg	0.0259U ng/Kg
	2,3,7,8-TCDD	0.0270 ng/Kg	0.0270U ng/Kg
	1,2,3,7,8-PeCDF	0.00904 ng/Kg	0.00904U ng/Kg
	2,3,4,7,8-PeCDF	0.0548 ng/Kg	0.0548U ng/Kg
	1,2,3,7,8-PeCDD	0.0434 ng/Kg	0.0434U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0623 ng/Kg	0.0623U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0258 ng/Kg	0.0258U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0600 ng/Kg	0.0600U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0459 ng/Kg	0.0459U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0566 ng/Kg	0.0566U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0417 ng/Kg	0.0417U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.199 ng/Kg	0.199U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.967 ng/Kg	0.967U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0747 ng/Kg	0.0747U ng/Kg
	OCDF	0.315 ng/Kg	0.315U ng/Kg
SL-186-SA7-SB-27.0-28.0	2,3,7,8-TCDF	0.0217 ng/Kg	0.0217U ng/Kg
	1,2,3,7,8-PeCDF	0.0374 ng/Kg	0.0374U ng/Kg
	2,3,4,7,8-PeCDF	0.0708 ng/Kg	0.0708U ng/Kg
	1,2,3,7,8-PeCDD	0.0230 ng/Kg	0.0230U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0659 ng/Kg	0.0659U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0405 ng/Kg	0.0405U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0941 ng/Kg	0.0941U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0196 ng/Kg	0.0196U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0426 ng/Kg	0.0426U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0692 ng/Kg	0.0692U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.186 ng/Kg	0.186U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.254 ng/Kg	0.254U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0622 ng/Kg	0.0622U ng/Kg
	OCDD	0.537 ng/Kg	0.537U ng/Kg
	OCDF	0.246 ng/Kg	0.246U ng/Kg
SL-187-SA7-SB-27.5-28.5	1,2,3,7,8-PeCDF	0.0297 ng/Kg	0.0297U ng/Kg
	2,3,4,7,8-PeCDF	0.0671 ng/Kg	0.0671U ng/Kg
	1,2,3,7,8-PeCDD	0.0401 ng/Kg	0.0401U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0669 ng/Kg	0.0669U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0375 ng/Kg	0.0375U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0590 ng/Kg	0.0590U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0361 ng/Kg	0.0361U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0566 ng/Kg	0.0566U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0568 ng/Kg	0.0568U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0430 ng/Kg	0.0430U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.179 ng/Kg	0.179U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.528 ng/Kg	0.528U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0716 ng/Kg	0.0716U ng/Kg
	OCDD	2.56 ng/Kg	2.56U ng/Kg
	OCDF	0.285 ng/Kg	0.285U ng/Kg
SL-188-SA7-SB-18.5-19.5	2,3,7,8-TCDD	0.0740 ng/Kg	0.0740U ng/Kg
	1,2,3,7,8-PeCDF	0.178 ng/Kg	0.178U ng/Kg
	2,3,4,7,8-PeCDF	0.174 ng/Kg	0.174U ng/Kg
	1,2,3,7,8-PeCDD	0.106 ng/Kg	0.106U ng/Kg
	1,2,3,4,7,8-HxCDF	0.120 ng/Kg	0.120U ng/Kg
	1,2,3,6,7,8-HxCDF	0.135 ng/Kg	0.135U ng/Kg
	2,3,4,6,7,8-HxCDF	0.129 ng/Kg	0.129U ng/Kg
	1,2,3,4,7,8-HxCDD	0.123 ng/Kg	0.123U ng/Kg
	1,2,3,6,7,8-HxCDD	0.259 ng/Kg	0.259U ng/Kg
	1,2,3,7,8,9-HxCDD	0.243 ng/Kg	0.243U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.675 ng/Kg	0.675U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.101 ng/Kg	0.101U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-188-SA7-SB-22.0-23.0	2,3,7,8-TCDF	0.0436 ng/Kg	0.0436U ng/Kg
	2,3,7,8-TCDD	0.0591 ng/Kg	0.0591U ng/Kg
	1,2,3,7,8-PeCDF	0.130 ng/Kg	0.130U ng/Kg
	2,3,4,7,8-PeCDF	0.147 ng/Kg	0.147U ng/Kg
	1,2,3,7,8-PeCDD	0.146 ng/Kg	0.146U ng/Kg
	1,2,3,4,7,8-HxCDF	0.120 ng/Kg	0.120U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0832 ng/Kg	0.0832U ng/Kg
	2,3,4,6,7,8-HxCDF	0.116 ng/Kg	0.116U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0498 ng/Kg	0.0498U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0776 ng/Kg	0.0776U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0948 ng/Kg	0.0948U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.207 ng/Kg	0.207U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.371 ng/Kg	0.371U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0825 ng/Kg	0.0825U ng/Kg
	OCDD	0.683 ng/Kg	0.683U ng/Kg
	OCDF	0.262 ng/Kg	0.262U ng/Kg
DUP10-SA7-QC-022112	2,3,7,8-TCDF	0.0411 ng/Kg	0.0411U ng/Kg
	2,3,7,8-TCDD	0.0453 ng/Kg	0.0453U ng/Kg
	1,2,3,7,8-PeCDF	0.161 ng/Kg	0.161U ng/Kg
	2,3,4,7,8-PeCDF	0.156 ng/Kg	0.156U ng/Kg
	1,2,3,7,8-PeCDD	0.201 ng/Kg	0.201U ng/Kg
	1,2,3,4,7,8-HxCDF	0.116 ng/Kg	0.116U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0722 ng/Kg	0.0722U ng/Kg
	2,3,4,6,7,8-HxCDF	0.111 ng/Kg	0.111U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0397 ng/Kg	0.0397U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0839 ng/Kg	0.0839U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0849 ng/Kg	0.0849U ng/Kg
	1,2,3,7,8,9-HxCDF	0.105 ng/Kg	0.105U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.218 ng/Kg	0.218U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.402 ng/Kg	0.402U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0928 ng/Kg	0.0928U ng/Kg
	OCDD	0.820 ng/Kg	0.820U ng/Kg
	OCDF	0.275 ng/Kg	0.275U ng/Kg
EB-SA5C-SB-021512	1,2,3,7,8-PeCDF	0.183 pg/L	0.183U pg/L
	2,3,4,7,8-PeCDF	0.683 pg/L	0.683U pg/L
	1,2,3,7,8-PeCDD	0.314 pg/L	0.314U pg/L
	1,2,3,4,7,8-HxCDF	0.415 pg/L	0.415U pg/L
	1,2,3,6,7,8-HxCDF	0.309 pg/L	0.309U pg/L
	2,3,4,6,7,8-HxCDF	0.602 pg/L	0.602U pg/L
	1,2,3,4,7,8-HxCDD	0.472 pg/L	0.472U pg/L
	1,2,3,6,7,8-HxCDD	0.576 pg/L	0.576U pg/L
	1,2,3,7,8,9-HxCDD	0.518 pg/L	0.518U pg/L
	1,2,3,7,8,9-HxCDF	0.337 pg/L	0.337U pg/L
	1,2,3,4,6,7,8-HpCDF	1.56 pg/L	1.56U pg/L
	1,2,3,4,6,7,8-HpCDD	4.73 pg/L	4.73U pg/L
	1,2,3,4,7,8,9-HpCDF	0.416 pg/L	0.416U pg/L
	OCDD	7.75 pg/L	7.75U pg/L
	OCDF	1.74 pg/L	1.74U pg/L
SL-146-SA5C-SB-47.5-48.5	1,2,3,7,8-PeCDF	0.0351 ng/Kg	0.0351U ng/Kg
	2,3,4,7,8-PeCDF	0.124 ng/Kg	0.124U ng/Kg
	1,2,3,7,8-PeCDD	0.0666 ng/Kg	0.0666U ng/Kg
	1,2,3,4,7,8-HxCDF	0.104 ng/Kg	0.104U ng/Kg
	1,2,3,6,7,8-HxCDF	0.104 ng/Kg	0.104U ng/Kg
	2,3,4,6,7,8-HxCDF	0.130 ng/Kg	0.130U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0863 ng/Kg	0.0863U ng/Kg
	1,2,3,7,8,9-HxCDD	0.147 ng/Kg	0.147U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0459 ng/Kg	0.0459U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.856 ng/Kg	0.856U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.127 ng/Kg	0.127U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-147-SA5C-SB-55.0-56.0	1,2,3,7,8-PeCDF	0.0721 ng/Kg	0.0721U ng/Kg
	2,3,4,7,8-PeCDF	0.158 ng/Kg	0.158U ng/Kg
	1,2,3,7,8-PeCDD	0.0566 ng/Kg	0.0566U ng/Kg
	1,2,3,4,7,8-HxCDF	0.190 ng/Kg	0.190U ng/Kg
	1,2,3,6,7,8-HxCDF	0.146 ng/Kg	0.146U ng/Kg
	2,3,4,6,7,8-HxCDF	0.170 ng/Kg	0.170U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0724 ng/Kg	0.0724U ng/Kg
	1,2,3,6,7,8-HxCDD	0.160 ng/Kg	0.160U ng/Kg
	1,2,3,7,8,9-HxCDD	0.116 ng/Kg	0.116U ng/Kg
	1,2,3,7,8,9-HxCDF	0.116 ng/Kg	0.116U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.581 ng/Kg	0.581U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.153 ng/Kg	0.153U ng/Kg
SL-147-SA5C-SB-40.0-41.0	1,2,3,7,8-PeCDF	0.0576 ng/Kg	0.0576U ng/Kg
	2,3,4,7,8-PeCDF	0.145 ng/Kg	0.145U ng/Kg
	1,2,3,7,8-PeCDD	0.0465 ng/Kg	0.0465U ng/Kg
	1,2,3,4,7,8-HxCDF	0.109 ng/Kg	0.109U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0892 ng/Kg	0.0892U ng/Kg
	2,3,4,6,7,8-HxCDF	0.129 ng/Kg	0.129U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0592 ng/Kg	0.0592U ng/Kg
	1,2,3,6,7,8-HxCDD	0.199 ng/Kg	0.199U ng/Kg
	1,2,3,7,8,9-HxCDD	0.150 ng/Kg	0.150U ng/Kg
	1,2,3,7,8,9-HxCDF	0.109 ng/Kg	0.109U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.542 ng/Kg	0.542U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0986 ng/Kg	0.0986U ng/Kg
	OCDF	0.924 ng/Kg	0.924U ng/Kg
SL-148-SA5C-SB-40.0-41.0	1,2,3,7,8-PeCDF	0.0766 ng/Kg	0.0766U ng/Kg
	2,3,4,7,8-PeCDF	0.149 ng/Kg	0.149U ng/Kg
	1,2,3,7,8-PeCDD	0.0513 ng/Kg	0.0513U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0867 ng/Kg	0.0867U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0721 ng/Kg	0.0721U ng/Kg
	2,3,4,6,7,8-HxCDF	0.122 ng/Kg	0.122U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0445 ng/Kg	0.0445U ng/Kg
	1,2,3,6,7,8-HxCDD	0.157 ng/Kg	0.157U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0920 ng/Kg	0.0920U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0818 ng/Kg	0.0818U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.556 ng/Kg	0.556U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0739 ng/Kg	0.0739U ng/Kg
	OCDF	1.00 ng/Kg	1.00U ng/Kg
SL-261-SA5A-SB-8.5-9.5	1,2,3,7,8-PeCDF	0.0235 ng/Kg	0.0235U ng/Kg
	2,3,4,7,8-PeCDF	0.0461 ng/Kg	0.0461U ng/Kg
	1,2,3,7,8-PeCDD	0.0322 ng/Kg	0.0322U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0683 ng/Kg	0.0683U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0584 ng/Kg	0.0584U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0956 ng/Kg	0.0956U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0486 ng/Kg	0.0486U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0809 ng/Kg	0.0809U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0726 ng/Kg	0.0726U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0388 ng/Kg	0.0388U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.158 ng/Kg	0.158U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.517 ng/Kg	0.517U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0575 ng/Kg	0.0575U ng/Kg
	OCDD	1.16 ng/Kg	1.16U ng/Kg
	OCDF	0.277 ng/Kg	0.277U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-260-SA5A-SB-5.5-6.6	1,2,3,7,8-PeCDF	0.0357 ng/Kg	0.0357U ng/Kg
	2,3,4,7,8-PeCDF	0.0584 ng/Kg	0.0584U ng/Kg
	1,2,3,7,8-PeCDD	0.0412 ng/Kg	0.0412U ng/Kg
	1,2,3,4,7,8-HxCDF	0.101 ng/Kg	0.101U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0735 ng/Kg	0.0735U ng/Kg
	2,3,4,6,7,8-HxCDF	0.105 ng/Kg	0.105U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0533 ng/Kg	0.0533U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0929 ng/Kg	0.0929U ng/Kg
	1,2,3,7,8,9-HxCDD	0.107 ng/Kg	0.107U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0948 ng/Kg	0.0948U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.362 ng/Kg	0.362U ng/Kg
	1,2,3,4,6,7,8-HpCDD	1.31 ng/Kg	1.31U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0803 ng/Kg	0.0803U ng/Kg
	OCDF	0.778 ng/Kg	0.778U ng/Kg
SL-325-SA6-SB-22.0-23.0	1,2,3,7,8-PeCDF	0.170 ng/Kg	0.170U ng/Kg
SL-325-SA6-SB-26.0-27.0	1,2,3,7,8-PeCDF	0.0980 ng/Kg	0.0980U ng/Kg
	2,3,4,7,8-PeCDF	0.140 ng/Kg	0.140U ng/Kg
	1,2,3,7,8-PeCDD	0.114 ng/Kg	0.114U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0807 ng/Kg	0.0807U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0847 ng/Kg	0.0847U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0760 ng/Kg	0.0760U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0569 ng/Kg	0.0569U ng/Kg
	1,2,3,6,7,8-HxCDD	0.107 ng/Kg	0.107U ng/Kg
	1,2,3,7,8,9-HxCDD	0.139 ng/Kg	0.139U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0346 ng/Kg	0.0346U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.199 ng/Kg	0.199U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.786 ng/Kg	0.786U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0603 ng/Kg	0.0603U ng/Kg
	OCDD	2.18 ng/Kg	2.18U ng/Kg
	OCDF	0.220 ng/Kg	0.220U ng/Kg
EB-SA7-SB-022212	1,2,3,7,8-PeCDF	0.312 pg/L	0.312U pg/L
	2,3,4,7,8-PeCDF	0.532 pg/L	0.532U pg/L
	1,2,3,4,7,8-HxCDF	0.607 pg/L	0.607U pg/L
	1,2,3,6,7,8-HxCDF	0.589 pg/L	0.589U pg/L
	2,3,4,6,7,8-HxCDF	0.718 pg/L	0.718U pg/L
	1,2,3,4,7,8-HxCDD	0.308 pg/L	0.308U pg/L
	1,2,3,6,7,8-HxCDD	0.503 pg/L	0.503U pg/L
	1,2,3,7,8,9-HxCDD	0.399 pg/L	0.399U pg/L
	1,2,3,7,8,9-HxCDF	0.334 pg/L	0.334U pg/L
	1,2,3,4,6,7,8-HpCDF	3.52 pg/L	3.52U pg/L
	1,2,3,4,6,7,8-HpCDD	4.44 pg/L	4.44U pg/L
	1,2,3,4,7,8,9-HpCDF	0.698 pg/L	0.698U pg/L
	OCDD	7.79 pg/L	7.79U pg/L
	OCDF	2.04 pg/L	2.04U pg/L

Samples EB-SA5C-SB-021512 and EB-SA7-SB-022212 were identified as equipment blanks. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA5C-SB-021512	2/15/11	1,2,3,7,8-PeCDF	0.183 pg/L	SL-146-SA5C-SB-47.5-48.5
		2,3,4,7,8-PeCDF	0.683 pg/L	SL-147-SA5C-SB-55.0-56.0
		1,2,3,7,8-PeCDD	0.314 pg/L	SL-147-SA5C-SB-40.0-41.0
		1,2,3,4,7,8-HxCDF	0.415 pg/L	SL-148-SA5C-SB-40.0-41.0
		1,2,3,6,7,8-HxCDF	0.309 pg/L	SL-261-SA5A-SB-85-9.5
		2,3,4,6,7,8-HxCDF	0.602 pg/L	SL-260-SA5A-SB-5.5-6.6
		1,2,3,4,7,8-HxCDD	0.472 pg/L	SL-325-SA6-SB-22.0-23.0
		1,2,3,6,7,8-HxCDD	0.576 pg/L	SL-325-SA6-SB-26.0-27.0
		1,2,3,7,8,9-HxCDD	0.518 pg/L	SL-324-SA6-SB-25.0-26.0
		1,2,3,7,8,9-HxCDF	0.337 pg/L	SL-326-SA6-SB-23.0-24.0
		1,2,3,4,6,7,8-HpCDF	1.56 pg/L	
		1,2,3,4,6,7,8-HpCDD	4.73 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.416 pg/L	
		OCDD	7.75 pg/L	
		OCDF	1.74 pg/L	
EB-SA7-SB-022212	2/22/11	2,3,7,8-TCDD	0.321 pg/L	
		1,2,3,7,8-PeCDF	0.312 pg/L	SL-323-SA6-SB-23.0-24.0
		2,3,4,7,8-PeCDF	0.532 pg/L	SL-186-SA7-SB-27.0-28.0
		1,2,3,4,7,8-HxCDF	0.607 pg/L	SL-187-SA7-SB-27.5-28.5
		1,2,3,6,7,8-HxCDF	0.589 pg/L	SL-187-SA7-SB-27.5-28.5 MS
		2,3,4,6,7,8-HxCDF	0.718 pg/L	SL-187-SA7-SB-27.5-28.5 MSD
		1,2,3,4,7,8-HxCDD	0.308 pg/L	SL-188-SA7-SB-18.5-19.5
		1,2,3,6,7,8-HxCDD	0.503 pg/L	SL-188-SA7-SB-22.0-23.0
		1,2,3,7,8,9-HxCDD	0.399 pg/L	DUP10-SA7-QC-022112
		1,2,3,7,8,9-HxCDF	0.334 pg/L	
		1,2,3,4,6,7,8-HpCDF	3.52 pg/L	
		1,2,3,4,6,7,8-HpCDD	4.44 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.698 pg/L	
		OCDD	7.79 pg/L	
		OCDF	2.04 pg/L	

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for other contaminants) than the concentrations found in the associated field blanks.

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 the QC limits.

VII. Ongoing Precision & Recovery Samples (OPR)

Ongoing precision and recovery (OPR) control samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DX158	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-186-SA7-SB-27.0-28.0 and DUP10-SA7-QC-022112 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
2,3,7,8-TCDF	0.0217	0.0411	62 (≤50)	J (all detects)	A
2,3,7,8-TCDD	0.0273U	0.0453	200 (≤50)	J (all detects) UJ (all non-detects)	A
1,2,3,7,8-PeCDF	0.0374	0.161	125 (≤50)	J (all detects)	A
2,3,4,7,8-PeCDF	0.0708	0.156	75 (≤50)	J (all detects)	A
1,2,3,7,8-PeCDD	0.0230	0.201	159 (≤50)	J (all detects)	A
1,2,3,4,7,8-HxCDF	0.0659	0.116	55 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDF	0.0405	0.0722	56 (≤50)	J (all detects)	A

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-186-SA7-SB-27.0-28.0	DUP10-SA7-QC-022112			
2,3,4,6,7,8-HxCDF	0.0941	0.111	16 (≤50)	-	-
1,2,3,4,7,8-HxCDD	0.0196	0.0397	68 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDD	0.0426	0.0839	65 (≤50)	J (all detects)	A
1,2,3,7,8,9-HxCDD	0.0199U	0.0849	200 (≤50)	J (all detects) UJ (all non-detects)	A
1,2,3,7,8,9-HxCDF	0.0692	0.105	41 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	0.186	0.218	16 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	0.254	0.402	45 (≤50)	-	-
1,2,3,4,7,8,9-HpCDF	0.0622	0.0928	39 (≤50)	-	-
OCDD	0.537	0.820	42 (≤50)	-	-
OCDF	0.246	0.275	11 (≤50)	-	-

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG DX158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DX158	SL-146-SA5C-SB-47.5-48.5 SL-147-SA5C-SB-55.0-56.0 SL-147-SA5C-SB-40.0-41.0 SL-148-SA5C-SB-40.0-41.0 EB-SA5C-SB-021512 Water SL-261-SA5A-SB-8.5-9.5 SL-260-SA5A-SB-5.5-6.6 SL-325-SA6-SB-22.0-23.0 SL-325-SA6-SB-26.0-27.0 SL-324-SA6-SB-25.0-26.0 SL-326-SA6-SB-23.0-24.0 SL-323-SA6-SB-23.0-24.0 SL-186-SA7-SB-27.0-28.0 SL-187-SA7-SB-27.5-28.5 SL-188-SA7-SB-18.5-19.5 SL-188-SA7-SB-22.0-23.0 DUP10-SA7-QC-022112 EB-SA7-SB-022212 Water	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DX158	SL-186-SA7-SB-27.0-28.0 DUP10-SA7-QC-022112	2,3,7,8-TCDD 1,2,3,7,8,9-HxCDD	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)
DX158	SL-186-SA7-SB-27.0-28.0 DUP10-SA7-QC-022112	2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG DX158

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX158	SL-324-SA6-SB-25.0-26.0	2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0304U ng/Kg 0.0427U ng/Kg 0.0409U ng/Kg 0.0596U ng/Kg 0.0513U ng/Kg 0.0483U ng/Kg 0.0720U ng/Kg 0.0367U ng/Kg 0.0452U ng/Kg 0.0844U ng/Kg 0.0593U ng/Kg 0.155U ng/Kg 0.398U ng/Kg 0.0606U ng/Kg 0.902U ng/Kg 0.215U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX158	SL-326-SA6-SB-23.0-24.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0451U ng/Kg 0.0994U ng/Kg 0.0917U ng/Kg 0.0608U ng/Kg 0.122U ng/Kg 0.0626U ng/Kg 0.153U ng/Kg 0.0971U ng/Kg 0.0367U ng/Kg 0.378U ng/Kg 0.0992U ng/Kg 0.612U ng/Kg	A	B
DX158	SL-323-SA6-SB-23.0-24.0	2,3,7,8-TCDF 2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.0259U ng/Kg 0.0270U ng/Kg 0.00904U ng/Kg 0.0548U ng/Kg 0.0434U ng/Kg 0.0623U ng/Kg 0.0258U ng/Kg 0.0600U ng/Kg 0.0459U ng/Kg 0.0566U ng/Kg 0.0417U ng/Kg 0.199U ng/Kg 0.967U ng/Kg 0.0747U ng/Kg 0.315U ng/Kg	A	B
DX158	SL-186-SA7-SB-27.0-28.0	2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0217U ng/Kg 0.0374U ng/Kg 0.0708U ng/Kg 0.0230U ng/Kg 0.0659U ng/Kg 0.0405U ng/Kg 0.0941U ng/Kg 0.0196U ng/Kg 0.0426U ng/Kg 0.0692U ng/Kg 0.186U ng/Kg 0.254U ng/Kg 0.0622U ng/Kg 0.537U ng/Kg 0.246U ng/Kg	A	B
DX158	SL-187-SA7-SB-27.5-28.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0297U ng/Kg 0.0671U ng/Kg 0.0401U ng/Kg 0.0669U ng/Kg 0.0375U ng/Kg 0.0590U ng/Kg 0.0361U ng/Kg 0.0566U ng/Kg 0.0568U ng/Kg 0.0430U ng/Kg 0.179U ng/Kg 0.528U ng/Kg 0.0716U ng/Kg 2.56U ng/Kg 0.285U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX158	SL-188-SA7-SB-18.5-19.5	2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0740U ng/Kg 0.178U ng/Kg 0.174U ng/Kg 0.106U ng/Kg 0.120U ng/Kg 0.135U ng/Kg 0.129U ng/Kg 0.123U ng/Kg 0.259U ng/Kg 0.243U ng/Kg 0.675U ng/Kg 0.101U ng/Kg	A	B
DX158	SL-188-SA7-SB-22.0-23.0	2,3,7,8-TCDF 2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0436U ng/Kg 0.0591U ng/Kg 0.130U ng/Kg 0.147U ng/Kg 0.146U ng/Kg 0.120U ng/Kg 0.0832U ng/Kg 0.116U ng/Kg 0.0498U ng/Kg 0.0776U ng/Kg 0.0948U ng/Kg 0.207U ng/Kg 0.371U ng/Kg 0.0825U ng/Kg 0.683U ng/Kg 0.262U ng/Kg	A	B
DX158	DUP10-SA7-QC-022112	2,3,7,8-TCDF 2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0411U ng/Kg 0.0453U ng/Kg 0.161U ng/Kg 0.156U ng/Kg 0.201U ng/Kg 0.116U ng/Kg 0.0722U ng/Kg 0.111U ng/Kg 0.0397U ng/Kg 0.0839U ng/Kg 0.0849U ng/Kg 0.105U ng/Kg 0.218U ng/Kg 0.402U ng/Kg 0.0928U ng/Kg 0.820U ng/Kg 0.275U ng/Kg	A	B
DX158	EB-SA5C-SB-021512	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.183U pg/L 0.683U pg/L 0.314U pg/L 0.415U pg/L 0.309U pg/L 0.602U pg/L 0.472U pg/L 0.576U pg/L 0.518U pg/L 0.337U pg/L 1.56U pg/L 4.73U pg/L 0.416U pg/L 7.75U pg/L 1.74U pg/L	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX158	SL-146-SA5C-SB-47.5-48.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0351U ng/Kg 0.124U ng/Kg 0.0666U ng/Kg 0.104U ng/Kg 0.104U ng/Kg 0.130U ng/Kg 0.0863U ng/Kg 0.147U ng/Kg 0.0459U ng/Kg 0.856U ng/Kg 0.127U ng/Kg	A	B
DX158	SL-147-SA5C-SB-55.0-56.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0721U ng/Kg 0.158U ng/Kg 0.0566U ng/Kg 0.190U ng/Kg 0.146U ng/Kg 0.170U ng/Kg 0.0724U ng/Kg 0.160U ng/Kg 0.116U ng/Kg 0.116U ng/Kg 0.581U ng/Kg 0.153U ng/Kg	A	B
DX158	SL-147-SA5C-SB-40.0-41.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0576U ng/Kg 0.145U ng/Kg 0.0465U ng/Kg 0.109U ng/Kg 0.0892U ng/Kg 0.129U ng/Kg 0.0592U ng/Kg 0.199U ng/Kg 0.150U ng/Kg 0.109U ng/Kg 0.542U ng/Kg 0.0986U ng/Kg 0.924U ng/Kg	A	B
DX158	SL-148-SA5C-SB-40.0-41.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0766U ng/Kg 0.149U ng/Kg 0.0513U ng/Kg 0.0867U ng/Kg 0.0721U ng/Kg 0.122U ng/Kg 0.0445U ng/Kg 0.157U ng/Kg 0.0920U ng/Kg 0.0818U ng/Kg 0.556U ng/Kg 0.0739U ng/Kg 1.00U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX158	SL-261-SA5A-SB-8.5-9.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0235U ng/Kg 0.0461U ng/Kg 0.0322U ng/Kg 0.0683U ng/Kg 0.0584U ng/Kg 0.0956U ng/Kg 0.0486U ng/Kg 0.0809U ng/Kg 0.0726U ng/Kg 0.0388U ng/Kg 0.158U ng/Kg 0.517U ng/Kg 0.0575U ng/Kg 1.16U ng/Kg 0.277U ng/Kg	A	B
DX158	SL-260-SA5A-SB-5.5-6.6	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.0357U ng/Kg 0.0584U ng/Kg 0.0412U ng/Kg 0.101U ng/Kg 0.0735U ng/Kg 0.105U ng/Kg 0.0533U ng/Kg 0.0929U ng/Kg 0.107U ng/Kg 0.0948U ng/Kg 0.362U ng/Kg 1.31U ng/Kg 0.0803U ng/Kg 0.778U ng/Kg	A	B
DX158	SL-325-SA6-SB-22.0-23.0	1,2,3,7,8-PeCDF	0.170U ng/Kg	A	B
DX158	SL-325-SA6-SB-26.0-27.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0980U ng/Kg 0.140U ng/Kg 0.114U ng/Kg 0.0807U ng/Kg 0.0847U ng/Kg 0.0760U ng/Kg 0.0569U ng/Kg 0.107U ng/Kg 0.139U ng/Kg 0.0346U ng/Kg 0.199U ng/Kg 0.786U ng/Kg 0.0603U ng/Kg 2.18U ng/Kg 0.220U ng/Kg	A	B
DX158	EB-SA7-SB-022212	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.312U pg/L 0.532U pg/L 0.607U pg/L 0.589U pg/L 0.718U pg/L 0.308U pg/L 0.503U pg/L 0.399U pg/L 0.334U pg/L 3.52U pg/L 4.44U pg/L 0.698U pg/L 7.79U pg/L 2.04U pg/L	A	B

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG DX158

No Sample Data Qualified in this SDG

LDC #: 27992M21 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/27/12
SDG #: DX158 Level IV Page: 1 of 7
Laboratory: Lancaster Laboratories Reviewer: 1
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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: 2/13 – 2/22/12
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	%D ≤ 20/35
IV.	Routine calibration/ICV	A	QC limits
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	~~LCS~~ OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	A	
XI.	Compound quantitation and CRQLs	A	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D = 13 + 19
XV.	Field blanks	SW	EB = 5, 20

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 + water

1 1	SL-146-SA5C-SB-47.5-48.5 ~~Soil~~	11 4	SL-326-SA6-SB-23.0-24.0 ~~Soil~~	21 1	BLK051001 –	31	
2 1	SL-147-SA5C-SB-55.0-56.0 ~~Soil~~	12 4	SL-323-SA6-SB-23.0-24.0 ~~Soil~~	22 2	BLK053002	32	
3 1	SL-147-SA5C-SB-40.0-41.0 ~~Soil~~	13 4	SL-186-SA7-SB-27.0-28.0 ~~Soil~~	23 3	BLK055001	33	
4 1	SL-148-SA5C-SB-40.0-41.0-~~Soil~~	14 4	SL-187-SA7-SB-27.5-28.5 ~~Soil~~	24 4	BLK055002	34	
5 2	EB-SA5C-SB-021512 ~~Water~~ W	15 4	SL-187-SA7-SB-27.5-28.5 MS ~~Soil~~	25		35	
6 1	SL-261-SA5A-SB-~~85~~ 8.5-9.5 ~~Soil~~	16 4	SL-187-SA7-SB-27.5-28.5 MSD ~~Soil~~	26		36	
7 1	SL-260-SA5A-SB-5.5-6.6 ~~Soil~~	17 4	SL-188-SA7-SB-18.5-19.5 ~~Soil~~	27		37	
8 1	SL-325-SA6-SB-22.0-23.0 ~~Soil~~	18 4	SL-188-SA7-SB-22.0-23.0 ~~Soil~~	28		38	
9 1	SL-325-SA6-SB-26.0-27.0 ~~Soil~~	19 4	DUP10-SA7-QC-022112 ~~Soil~~	29		39	
10 4	SL-324-SA6-SB-25.0-26.0 ~~Soil~~	20 3	EB-SA7-SB-022212 ~~Water~~ W	30		40	

Notes:

LDC #: 27992M21

VALIDATION FINDINGS CHECKLIST

Page: 1 of
Reviewer: FT
2nd Reviewer:

Method: Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Was PFK exact mass 380.9760 verified?	✓			
Were the retention time windows established for all homologues?	✓			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers ≤ 25% ?	✓			
Is the static resolving power at least 10,000 (10% valley definition)?	✓			
Was the mass resolution adequately check with PFK?	✓			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	✓			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20% for unlabeled compounds and ≤ 35% for labeled compounds ?	✓			
Did all calibration standards meet the Ion Abundance Ratio criteria?	✓			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?	✓			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	✓			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	✓			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank performed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	✓			
VI. 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.	✓		-	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VII. 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?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
IX. Internal standards				
Were internal standard recoveries within the ~~25-150%~~ QC limits criteria?	✓			
Was the minimum S/N ratio of all internal standard peaks ≥ 10?	✓			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	✓			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	✓			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?	✓			
Did compound spectra contain all characteristic ions listed in the table attached?	✓			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?	✓			
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5?	✓			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	✓			
For PCDF identification, was any signal (S/N ≥ 2.5, at ± seconds RT) detected in the corresponding PCDPE channel?		✓		
Was an acceptable lock mass recorded and monitored?	✓			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
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.	✓			
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: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?

Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC

Y N N/A Was the method blank contaminated?

(B)

Blank extraction date: 2/24/12 **Blank analysis date:** 2/28/12 **Associated samples:** 10-14, 17-19

Conc. units: ng/Kg

Compound	Blank ID	Sample Identification								
	BLKQ55002	5X	10	11	12	13	14	17	18	19
H	0.0329*	0.1645			0.0259*U	0.0217U			0.0436*U	0.0411*U
A	0.0398*	0.199	0.0304U		0.0270U			0.0740*U	0.0591*U	0.0453U
I	0.0597*	0.2985	0.0427U	0.0451*U	0.00904*U	0.0374*U	0.0297*U	0.178U	0.130*U	0.161U
J	0.0791	0.3955	0.0409*U	0.0994*U	0.0548*U	0.0708*U	0.0671*U	0.174*U	0.147U	0.156U
B	0.0491*	0.2455	0.0596*U		0.0434U	0.0230*U	0.0401*U	0.106*U	0.146U	0.201*U
K	0.0922*	0.461	0.0513U	0.0917*U	0.0623U	0.0659*U	0.0669U	0.120U	0.120U	0.116U
L	0.0562*	0.281	0.0483U	0.0608*U	0.0258*U	0.0405U	0.0375U	0.135U	0.0832*U	0.0722*U
M	0.0761	0.3805	0.0720*U	0.122U	0.0600*U	0.0941*U	0.0590*U	0.129U	0.116*U	0.111U
C	0.0412*	0.206	0.0367U	0.0626*U		0.0196*U	0.0361*U	0.123*U	0.0498*U	0.0397U
D	0.0496*	0.248	0.0452U	0.153U	0.0459U	0.0426*U	0.0566*U	0.259U	0.0776*U	0.0839U
E	0.0827*	0.4135	0.0844U	0.0971*U	0.0566U		0.0568*U	0.243U	0.0948U	0.0849*U
N	0.0757	0.3785	0.0593*U	0.0367*U	0.0417*U	0.0692U	0.0430*U			0.105*U
O	0.161	0.805	0.155U	0.378*U	0.199*U	0.186U	0.179U	0.675*U	0.207U	0.218U
F	0.340	1.7	0.398U		0.967U	0.254*U	0.528*U		0.371U	0.402*U
P	0.0824	0.412	0.0606U	0.0992*U	0.0747*U	0.0622U	0.0716U	0.101*U	0.0825U	0.0928U
G	0.648	3.24	0.902U			0.537U	2.56U		0.683U	0.820U
Q	0.231	1.155	0.215U	0.612U	0.315U	0.246*U	0.285*U		0.262U	0.275U

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

(13)

Blank extraction date: 2/22/12 **Blank analysis date:** 2/28/12 **Associated samples:** 5
Conc. units: pg/L

Compound	Blank ID	Sample Identification								
	BLKQ53002	5X	5						~~8~~	~~9~~
H	0.262*	1.31								
I	0.352*	1.76	0.183*U							
J	0.874*	4.37	0.683*U							
B	0.299*	1.495	0.314*U							
K	0.642	3.21	0.415*U							
L	0.405*	2.025	0.309*U							
M	0.494*	2.47	0.602U							
C	0.365*	1.825	0.472*U							
D	0.704	3.52	0.576*U							
E	0.491*	2.455	0.518*U							
N	0.757*	3.785	0.337*U							
O	1.49	7.45	1.56*U							
F	4.04	20.2	4.73U							
P	0.685	3.425	0.416*U							
G	7.80	39	7.75U							
Q	1.68*	8.4	1.74U							

~~0.924~~

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: EM
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

Blank extraction date: 2/20/12 **Blank analysis date:** 2/21/12 **Associated samples:** 1-4, 6-9 (B)
Conc. units: ng/Kg

Compound	Blank ID	Sample Identification								
	BLK051001	5X	1	2	3	4	6	7	8	9
I	0.0370	0.185	0.0351U	0.0721*U	0.0576*U	0.0766*U	0.0235U	0.0357U	0.170*U	0.0980*U
J	0.0826	0.413	0.124*U	0.158U	0.145*U	0.149U	0.0461*U	0.0584U		0.140*U
B	0.0634*	0.317	0.0666*U	0.0566*U	0.0465*U	0.0513*U	0.0322*U	0.0412*U		0.114*U
K	0.0640*	0.32	0.104U	0.190U	0.109U	0.0867U	0.0683U	0.101*U		0.0807*U
L	0.0481	0.2405	0.104U	0.146U	0.0892*U	0.0721U	0.0584U	0.0735*U		0.0847*U
M	0.0644*	0.322	0.130U	0.170U	0.129*U	0.122U	0.0956U	0.105U		0.0760*U
C	0.0412*	0.206	0.0863*U	0.0724U	0.0592U	0.0445*U	0.0486U	0.0533*U		0.0569U
D	0.0525*	0.2625		0.160U	0.199U	0.157U	0.0809*U	0.0929*U		0.107U
E	0.0889*	0.4445	0.147U	0.116U	0.150*U	0.0920U	0.0726U	0.107U		0.139U
N	0.0621*	0.3105	0.0459*U	0.116U	0.109*U	0.0818U	0.0388U	0.0948U		0.0346*U
O	0.186	0.93	0.856U	0.581U	0.542U	0.556U	0.158U	0.362U		0.199U
F	0.402	2.01					0.517U	1.31U		0.786*U
P	0.0572	0.286	0.127*U	0.153*U	0.0986*U	0.0739U	0.0575U	0.0803U		0.0603U
G	0.612	3.06					1.16U			2.18U
Q	0.220	1.1			0.924U	1.00U	0.277U	0.778U		0.220U

~~0.924~~

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: KD
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

Blank extraction date: 2/22/12 **Blank analysis date:** 2/28/12 **Associated samples:** 20 (B7)
Conc. units: pg/L

Compound	Blank ID	Sample Identification								
	BLKO55001	5X	20							
H	0.300*	1.5								
I	0.227*	1.135	0.312U							
J	0.937*	4.685	0.532*U							
B	0.559*	2.795								
K	0.672	3.36	0.607U							
L	0.559	2.795	0.589U							
M	0.885	4.425	0.718U							
C	0.335*	1.675	0.308*U							
D	0.646	3.23	0.503U							
E	0.725	3.625	0.399*U							
N	0.470*	2.35	0.334*U							
O	2.96	14.8	3.52U							
F	4.12	20.6	4.44U							
P	0.798*	3.99	0.698*U							
G	9.54	47.7	7.79U							
Q	2.04	10.2	2.04U							

~~0.924~~

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: B
2nd Reviewer:

METHOD: GC/MS Dioxins/Dibenzofurans (Method 1613B)

(Y) N N/A Were field blanks identified in this SDG?

Blank units: pg/L **Associated sample units:** ng/Kg
Sampling date: 2/15/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: ~~2 3 6 >5x~~ 1→4, 6→11

Compound	Blank ID	Sample Identification									
	5	5X									
I	0.183*	0.915									
J	0.683*	3.415									
B	0.314*	1.57									
K	0.415*	2.075									
L	0.309*	1.545									
M	0.602	3.01									
C	0.472*	2.36									
D	0.576*	2.88									
E	0.518*	2.59									
N	0.337*	1.685									
O	1.56*	7.8									
F	4.73	23.65									
P	0.416*	2.08									
G	7.75	38.75									
Q	1.74	8.7									

*EMPC

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: EJ
2nd Reviewer:

METHOD: GC/MS Dioxins/Dibenzofurans (Method 1613B)

Y N N/A Were field blanks identified in this SDG?

Blank units: pg/L 22 **Associated sample units:** ng/Kg
Sampling date: 2/~~15~~/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: ~~14 5X~~ 12 → 19 75X

Compound	Blank ID	Sample Identification									
	20	5X									
A	0.321*	1.605									
I	0.312	1.56									
J	0.532*	2.66									
K	0.607	3.035									
L	0.589	2.945									
M	0.718	3.59									
C	0.308*	1.54									
D	0.503	2.515									
E	0.399*	1.995									
N	0.334*	1.67									
O	3.52	17.6									
F	4.44	22.2									
P	0.698*	3.49									
G	7.79	38.95									
Q	2.04	10.2									

*EMPC

LDC#: 27992M1 **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: EF
2nd Reviewer:

METHOD: Dioxins/Dibenzofurans (EPA Method 1613B)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

(FD)

Compound	Concentration (ng/kg)		≤50 RPD	
	13	19		
H	0.0217	0.0411*	62	J/Adet
A	0.0273U	0.0453	200	J/UJ/A
I	0.0374*	0.161	125	J/A det
J	0.0708*	0.156	75	↓
B	0.0230*	0.201*	159	
K	0.0659*	0.116	55	
L	0.0405	0.0722*	56	
M	0.0941*	0.111	16	
C	0.0196*	0.0397	68	J/A det
D	0.0426*	0.0839	65	↓
E	0.0199U	0.0849*	200	J/UJ/A
N	0.0692	0.105*	41	
O	0.186	0.218	16	
F	0.254*	0.402*	45	
P	0.0622	0.0928	39	
G	0.537	0.820	42	
Q	0.246*	0.275	11	

V/ FieldDup 27992 M21

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$ — A_x = Area of compound, A_{is} = Area of associated internal standard
average RRF = sum of the RRFs/number of standards — C_x = Concentration of compound, C_{is} = Concentration of internal standard
$\%RSD = 100 * (S/X)$ — S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported RRF (CS3 std)	Recalculated RRF (CS3 std)	Reported %RSD	Recalculated %RSD
1	ICAL	2/17/12	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	0.967	0.967	0.968	0.968	3.42	3.42
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.185	1.185	1.134	1.134	5.03	5.03
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.946	0.946	0.976	0.976	3.02	3.02
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.025	1.025	1.043	1.043	2.69	2.69
			OCDF (^{13}C-OCDF)	0.955	0.955	0.995	0.995	4.32	4.32
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						

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 #: 27992M21

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv 9:50	2/29/12	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.0	9.850	9.850	99	99
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	10.50	10.50	105	105
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	53.740	53.740	107	107
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	52.940	52.940	106	106
			OCDF (^{13}C-OCDF)	100.0	100.930	100.930	101	101
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)					
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)					
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)					
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)					
			OCDF (^{13}C-OCDF)					
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)					
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)					
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)					
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)					
			OCDF (^{13}C-OCDF)					

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992M2 /

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Conc Average ~~RRF~~ (initial)	Reported ~~RRF~~ (CC)	Recalculated ~~RRF~~ (CC)	Reported %D	Recalculated %D
1	CCV 16:50	2/21/12	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.00	9.950	9.950	99	99
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	10.090	10.090	101	101
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	52.230	52.230	104	104
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	52.100	52.100	104	104
			OCDF (^{13}C-OCDF)	100.0	102610	100.61	101	101
2	CCV 23:20	2/27/12	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.0	9.820	9.820	98	98
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	10.460	10.460	105	105
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	53.720	53.720	107	107
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	52.920	52.920	106	106
			OCDF (^{13}C-OCDF)	100.0	98.940	98.940	99	99
3	CCV 9:50	2/28/12	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.890	9.890	99	99
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.650	10.650	106	106
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		53.450	53.450	107	107
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		53.310	53.310	107	107
			OCDF (^{13}C-OCDF)		99.510	99.510	100	100

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSR - SR)/SA Where: SSR = Spiked sample result, SR = Sample result
SA = Spike added

RPD = I MSR - MSDR I * 2/(MSR + MSDR) MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 15 + 16

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		Reported RPD	Recalculated RPD
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	----	----
2,3,7,8-TCDD	21.1	21.1	ND	22.1	22.3	105	105	105	105	1	1
1,2,3,7,8-PeCDD	106	106	0.0401	112	112	106	106	106	106	0	0
1,2,3,4,7,8-HxCDD	106	106	0.0361	104	106	98	98	101	101	2	2
1,2,3,4,7,8,9-HpCDF	106	106	00716	98.4	96.8	93	93	92	92	2	2
OCDF	211	211	0.285	197	197	93	93	93	93	0	0

Comments: Refer to Matrix Spike/Matrix Spike Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992M21

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: OPR0551001 ~~5002~~

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
2,3,7,8-TCDD	20.0	NA	20.2	NA	101	101				
1,2,3,7,8-PeCDD	100		100		100	100				
1,2,3,4,7,8-HxCDD	100		97.3		97	97				
1,2,3,4,7,8,9-HpCDF	100		93.7		94	94				
OCDF	200		186		93	93	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27992M2 1

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: F7
2nd reviewer: _____

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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 agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example: 2, 3, 7, 8 TCDF

Sample I.D. # 2 , ~~2378-TCDF~~:

Conc. = $\frac{(260+176)(100)(20)}{(142372+1140539)(0.967)(10.1)(0.89)}$

= 0.3914 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Appendix D
Master Database Table
(On CD)

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	300.0	2/16/2012	Gen Prep	12B130	10.1	1	14797-55-8	Nitrate-NO3	1.01	J	0.834	1.67	mg/kg	J	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	300.0	2/16/2012	Gen Prep	12B130	10.1	1	14797-65-0	Nitrite-NO2	1.67	U	0.834	1.67	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	300.0	2/16/2012	Gen Prep	12B130	10.1	1	16984-48-8	FLUORIDE	2.53		0.556	1.11	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	314.0	2/17/2012	Gen Prep	12B130	10.1	1	14797-73-0	PERCHLORATE	22.2	U	11.1	22.2	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7429-90-5	ALUMINUM	6610		12.8	25.7	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-89-6	IRON	12900		10.7	21.4	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-92-1	LEAD	3.05		0.107	0.214	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-93-2	LITHIUM	15.4		1.07	2.14	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-95-4	MAGNESIUM	2540		5.35	10.7	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-96-5	MANGANESE	167		0.268	0.535	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7439-98-7	MOLYBDENUM	0.495		0.0535	0.107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-02-0	NICKEL	4.66		0.214	0.428	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-09-7	POTASSIUM	2000		32.1	64.2	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-22-4	SILVER	0.107	U	0.0535	0.107	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-23-5	SODIUM	219		53.5	107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-24-6	STRONTIUM	9.63		0.268	0.535	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-28-0	THALLIUM	0.228		0.0535	0.107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-31-5	TIN	10.7	U	5.35	10.7	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-32-6	TITANIUM	677		0.535	1.07	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-36-0	ANTIMONY	0.214	U	0.107	0.214	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-38-2	Arsenic	2.32		0.214	0.428	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-39-3	BARIUM	49.3		0.214	0.428	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-41-7	BERYLLIUM	0.293		0.0535	0.107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-42-8	BORON	5.35	U	2.68	5.35	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-43-9	CADMIUM	0.102	J	0.0535	0.107	mg/kg	J	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-47-3	CHROMIUM	8.85		0.214	0.428	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-48-4	COBALT	2.91		0.0535	0.107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-50-8	COPPER	4.47		0.214	0.428	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-62-2	VANADIUM	17.4		0.0535	0.107	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-66-6	ZINC	40.6		1.61	3.21	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-67-7	Zirconium	5.35	U	2.68	5.35	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7440-70-2	CALCIUM	2420		10.7	21.4	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7723-14-0	PHOSPHORUS	308		6.42	12.8	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6020	2/24/2012	Gen Prep	12B130	10.1	0.962	7782-49-2	SELENIUM	0.428	U	0.214	0.428	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	6850	2/17/2012	Gen Prep	12B130	10.1	1	14797-73-0	PERCHLORATE	3.25	J	2.78	5.56	ug/kg	J	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	7199	2/17/2012	Gen Prep	12B130	10.1	1	18540-29-9	HEXAVALENT CHROMIUM	1.11	U	0.556	1.11	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	7199	2/17/2012	Gen Prep	12B130	10.1	1	18540-29-9	HEXAVALENT CHROMIUM	1.11	U	0.556	1.11	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	7471A	2/21/2012	7471A	12B130	10.1	1.01	7439-97-6	Mercury	0.112	U	0.0562	0.112	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015B	2/14/2012	Gen Prep	12B130	10.1	1	64-17-5	ETHANOL	560	U	280	560	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015B	2/14/2012	Gen Prep	12B130	10.1	1	67-56-1	METHANOL	560	U	280	560	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015B	2/14/2012	Gen Prep	12B130	10.1	1	67-63-0	Isopropanol	560	U	280	560	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC12C14	EFH (C12-C14)	1.1	U	0.56	1.1	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC15C20	EFH (C15-C20)	1.1	U	0.56	1.1	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC21C30	EFH (C21-C30)	4.1		0.56	1.1	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC30C40	EFH (C30-C40)	4.1		0.56	1.1	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC8C11	EFH (C8-C11)	1.1	U	5.6	11	mg/kg	J	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02R	EMXT	8015B EFH	2/17/2012	3550B	12B130	10.1	1	PHCC8C40	TOTAL EFH(C8-C40)	9		8.3	17	mg/kg				-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015M	2/14/2012	Gen Prep	12B130	10.1	1	107-21-1	ETHYLENE GLYCOL	11	U	5.6	11	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015M	2/14/2012	Gen Prep	12B130	10.1	1	111-46-6	DIETHYLENE GLYCOL	17	U	0.95	1.9	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8015M	2/14/2012	Gen Prep	12B130	10.1	1	57-55-6	Propylene glycol	11	U	0.95	1.9	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11096-82-5	Aroclor 1260	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11097-69-1	Aroclor 1254	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11100-14-4	Aroclor 1268	1.9	U	1.9	3.7	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11104-28-2	Aroclor 1221	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11126-42-4	Aroclor 5460	3.7	U	1.9	3.7	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	11141-16-5	Aroclor 1232	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	12642-23-8	Aroclor 5442	3.7	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	12672-29-6	Aroclor 1248	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	12674-11-2	Aroclor 1016	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	37324-23-5	Aroclor 1262	1.9	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	53469-21-9	Aroclor 1242	1.9	U	190	370	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8082	2/17/2012	3550B	12B130	10.1	1	63496-31-1	Aroclor 5432	3.7	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	100-01-6	4-NITROANILINE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	100-02-7	4-NITROPHENOL	370	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	100-51-6	BENZYL ALCOHOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	105-67-9	2,4-DIMETHYLPHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	106-44-5	4-METHYLPHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	106-46-7	1,4-DICHLOROBENZENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	106-47-8	4-CHLOROANILINE	190	U	190	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	108-68-9	3,5-Dimethylphenol	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	108-95-2	PHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	190	U	190	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	111-76-2	2-butoxy-Ethanol	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	118-74-1	HEXACHLOROBENZENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	119-64-2	Tetralin	190	U	190	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	120-82-1	1,2,4-Trichlorobenzene	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	120-83-2	2,4-DICHLOROPHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	121-14-2	2,4-DINITROTOLUENE	190	U	190	370	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	190	U	190	370	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	122-99-6	2-phenoxy-Ethanol	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	132-64-9	DIBENZOFURAN	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	190	U	370	740	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	51-28-5	2,4-DINITROPHENOL	370	U	93	190	ug/kg	U			-118.71354	34.2323589

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	370	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	541-73-1	1,3-DICHLOROBENZENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	59-50-7	4-CHLORO-3-METHYLPHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	606-20-2	2,6-DINITROTOLUENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	62-53-3	ANILINE	370	U	190	370	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	65-85-0	BENZOIC ACID	740	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	67-72-1	HEXACHLOROETHANE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	78-59-1	ISOPHORONE	190	U	470	920	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	86-30-6	N-NITROSODIPHENYLAMINE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	86-74-8	CARBAZOLE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	87-68-3	HEXACHLOROBUTADIENE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	87-86-5	PENTACHLOROPHENOL	370	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	88-06-2	2,4,6-TRICHLOROPHENOL	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	88-74-4	2-NITROANILINE	190	U	93	190	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	88-75-5	2-NITROPHENOL	190	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	91-58-7	2-CHLORONAPHTHALENE	190	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	91-94-1	3,3'-DICHLOROBENZIDINE	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	92-87-5	BENZIDINE	920	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	95-48-7	2-METHYLPHENOL	190	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	95-50-1	1,2-Dichlorobenzene	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	95-57-8	2-CHLOROPHENOL	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	95-95-4	2,4,5-TRICHLOROPHENOL	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	98-95-3	NITROBENZENE	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C	2/16/2012	3550B	12B130	10.1	1	99-09-2	3-NITROANILINE	190	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	117-84-0	Di-n-octylphthalate	19	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	120-12-7	ANTHRACENE	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	129-00-0	PYRENE	0.95	J	0.95	1.9	ug/kg	J	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	131-11-3	Dimethylphthalate	19	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	191-24-2	BENZO(G,H,I)PERYLENE	0.98	J	0.95	1.9	ug/kg	J	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	206-44-0	FLUORANTHENE	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	9.3	19	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	208-96-8	ACENAPHTHYLENE	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	218-01-9	CHRYSENE	1.9	U	0.95	1.9	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	50-32-8	BENZO(A)PYRENE	1.9	U	0.0529	0.106	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	0.211	0.423	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	0.0529	0.106	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	0.211	0.423	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	83-32-9	ACENAPHTHENE	1.9	U	0.0529	0.106	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	84-66-2	Diethylphthalate	19	U	1.59	3.17	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	84-74-2	Di-n-butylphthalate	19	U	2.64	5.29	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	85-01-8	PHENANTHRENE	1.9	U	10.6	21.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	85-68-7	Butylbenzylphthalate	19	U	6.34	12.7	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	86-73-7	FLUORENE	1.9	U	0.211	0.423	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	0.561	1.12	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	91-20-3	NAPHTHALENE	1.9	U	0.561	1.12	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8270C SIM	2/16/2012	3550B	12B130	10.1	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	0.0566	0.113	ug/kg	U			-118.71354	34.2323589
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-43-9	CADMIUM	0.103	J	280	560	mg/kg	J	J	Z	-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-47-3	CHROMIUM	11.6		280	560	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-48-4	COBALT	3.63		280	560	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-50-8	COPPER	4.9		0.56	1.1	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-62-2	VANADIUM	24.4		0.56	1.1	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-66-6	ZINC	48		0.56	1.1	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-67-7	Zirconium	5.29	U	0.56	1.1	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-70-2	CALCIUM	1900		0.56	1.1	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7723-14-0	PHOSPHORUS	349		0.56	1.1	mg/kg				-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7782-49-2	SELENIUM	0.423	U	5.6	11	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04R	EMXT	7199	2/17/2012	Gen Prep	12B160	10.8	1	18540-29-9	HEXAVALENT CHROMIUM	1.12	U	8.4	17	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	7199	2/17/2012	Gen Prep	12B160	10.8	1	18540-29-9	HEXAVALENT CHROMIUM	1.12	U	5.6	11	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	7471A	2/21/2012	7471A	12B160	10.8	1.01	7439-97-6	Mercury	0.113	U	0.95	1.9	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.8	1	64-17-5	ETHANOL	560	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.8	1	67-56-1	METHANOL	560	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.8	1	67-63-0	Isopropanol	560	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC12C14	EFH (C12-C14)	1.1	U	1.9	3.7	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC15C20	EFH (C15-C20)	1.1	U	0.95	1.9	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC21C30	EFH (C21-C30)	1.1	U	0.95	1.9	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC30C40	EFH (C30-C40)	1.1	U	0.95	1.9	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC8C11	EFH (C8-C11)	0.63	J	0.95	1.9	mg/kg	J	J	Z	-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.8	1	PHCC8C40	TOTAL EFH(C8-C40)	0.63	J	1.9	3.7	mg/kg	J	J	Z	-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.8	1	107-21-1	ETHYLENE GLYCOL	11	U	94	190	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.8	1	111-46-6	DIETHYLENE GLYCOL	17	U	190	370	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.8	1	57-55-6	Propylene glycol	11	U	94	190	mg/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11096-82-5	Aroclor 1260	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11097-69-1	Aroclor 1254	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11100-14-4	Aroclor 1268	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11104-28-2	Aroclor 1221	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11126-42-4	Aroclor 5460	3.7	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	11141-16-5	Aroclor 1232	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	12642-23-8	Aroclor 5442	3.7	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	12672-29-6	Aroclor 1248	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	12674-11-2	Aroclor 1016	1.9	U	190	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	37324-23-5	Aroclor 1262	1.9	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	53469-21-9	Aroclor 1242	1.9	U	190	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8082	2/24/2012	3550B	12B160	10.8	1	63496-31-1	Aroclor 5432	3.7	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	100-01-6	4-NITROANILINE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	100-02-7	4-NITROPHENOL	370	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	100-51-6	BENZYL ALCOHOL	190	U	190	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	105-67-9	2,4-DIMETHYLPHENOL	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	106-44-5	4-METHYLPHENOL	190	U	190	370	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	106-46-7	1,4-DICHLOROBENZENE	190	U	190	370	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	106-47-8	4-CHLOROANILINE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	108-68-9	3,5-Dimethylphenol	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	108-95-2	PHENOL	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	190	U	190	370	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	111-76-2	2-butoxy-Ethanol	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	190	U	370	750	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	118-74-1	HEXACHLOROBENZENE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	119-64-2	Tetralin	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	120-82-1	1,2,4-Trichlorobenzene	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	120-83-2	2,4-DICHLOROPHENOL	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	121-14-2	2,4-DINITROTOLUENE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	122-99-6	2-phenoxy-Ethanol	190	U	190	370	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	132-64-9	DIBENZOFURAN	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	51-28-5	2,4-DINITROPHENOL	370	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	370	U	470	930	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	541-73-1	1,3-DICHLOROBENZENE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	59-50-7	4-CHLORO-3-METHYLPHENOL	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	606-20-2	2,6-DINITROTOLUENE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	62-53-3	ANILINE	370	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	65-85-0	BENZOIC ACID	750	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	67-72-1	HEXACHLOROETHANE	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	78-59-1	ISOPHORONE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	86-30-6	N-NITROSODIPHENYLAMINE	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	86-74-8	CARBAZOLE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	87-68-3	HEXACHLOROBUTADIENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	87-86-5	PENTACHLOROPHENOL	370	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	88-06-2	2,4,6-TRICHLOROPHENOL	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	88-74-4	2-NITROANILINE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	88-75-5	2-NITROPHENOL	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	91-58-7	2-CHLORONAPHTHALENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	91-94-1	3,3'-DICHLOROBENZIDINE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	92-87-5	BENZIDINE	930	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	95-48-7	2-METHYLPHENOL	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	95-50-1	1,2-Dichlorobenzene	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	95-57-8	2-CHLOROPHENOL	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	95-95-4	2,4,5-TRICHLOROPHENOL	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	98-95-3	NITROBENZENE	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C	2/22/2012	3550B	12B160	10.8	1	99-09-2	3-NITROANILINE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	117-84-0	Di-n-octylphthalate	19	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	120-12-7	ANTHRACENE	1.9	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	129-00-0	PYRENE	1.9	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	131-11-3	Dimethylphthalate	19	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	0.51	1.0	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	0.530	1.06	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	10.6	21.2	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	206-44-0	FLUORANTHENE	1.9	U	11.4	22.7	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	9.46	18.9	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	208-96-8	ACENAPHTHYLENE	1.9	U	0.0946	0.189	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	218-01-9	CHRYSENE	1.9	U	0.946	1.89	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	50-32-8	BENZO(A)PYRENE	1.9	U	0.0473	0.0946	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	0.189	0.378	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	28.4	56.8	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	0.0473	0.0946	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	83-32-9	ACENAPHTHENE	1.9	U	47.3	94.6	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	84-66-2	Diethylphthalate	19	U	0.236	0.473	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	84-74-2	Di-n-butylphthalate	19	U	0.0473	0.0946	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	85-01-8	PHENANTHRENE	1.9	U	4.73	9.46	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	85-68-7	Butylbenzylphthalate	19	U	0.473	0.946	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	86-73-7	FLUORENE	1.9	U	0.0946	0.189	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	0.189	0.378	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	91-20-3	NAPHTHALENE	1.2	J	0.189	0.378	ug/kg	J	J	Z	-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.8	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	0.0473	0.0946	ug/kg	U			-118.70893	34.2338012
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	9045D	2/17/2012	Gen Prep	12B160	10.8	1	PH	PH	7.97		2.36	4.73	pH unit	0.1			-118.70893	34.2338012
SL-324-SA6-SB-25.5	2/16/2012	N	25.5	25.5	ft bgs	SO	DeepBoring	B160-03W	EMXT	8015B GRO	2/22/2012	5035	12B160	11.2	0.91	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.189	0.378	mg/kg	U			-118.70893	34.2338012
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	300.0	2/21/2012	Gen Prep	12B176	5.6	1	16984-48-8	FLUORIDE	2.91		0.0473	0.0946	mg/kg				-118.70893	34.2338012
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	314.0	2/23/2012	Gen Prep	12B176	5.6	1	14797-73-0	PERCHLORATE	42.2		0.189	0.378	ug/kg				-118.70893	34.2338012
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7429-90-5	ALUMINUM	10400		178	355	mg/kg				-118.70893	34.2338012
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-89-6	IRON	19000		1.6	3.7	mg/kg				-118.7083	34.2353203

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-92-1	LEAD	3.63		1.6	3.7	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-93-2	LITHIUM	32.9		1.6	3.7	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-95-4	MAGNESIUM	5910		1300	3200	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-96-5	MANGANESE	258		0.50	0.50	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7439-98-7	MOLYBDENUM	0.557		18.3	36.5	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-02-0	NICKEL	7.49		1.7	3.9	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-09-7	POTASSIUM	3820		1.7	3.9	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-22-4	SILVER	0.0946	U	1.7	3.9	mg/kg	U			-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-23-5	SODIUM	721		1300	3300	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-24-6	STRONTIUM	23.7		0.50	0.50	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-28-0	THALLIUM	0.235		17.6	35.2	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-31-5	TIN	9.46	U	1.6	3.7	mg/kg	U			-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-32-6	TITANIUM	1080		1.6	3.7	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-36-0	ANTIMONY	0.114	J	1.6	3.7	mg/kg	J	J	Z	-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-38-2	Arsenic	3.18		1300	3200	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-39-3	BARIUM	95.2		0.50	0.50	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-41-7	BERYLLIUM	0.47		1.7	3.9	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-42-8	BORON	4.73	U	1.7	3.9	mg/kg	U			-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-43-9	CADMIUM	0.127		1.7	3.9	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-47-3	CHROMIUM	14.4		0.50	0.50	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-48-4	COBALT	4.7		207	414	mg/kg				-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-50-8	COPPER	5.8		1.9	4.4	mg/kg				-118.7083	34.2353203
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	1625C	3/5/2012	3546	DE293	6.7	10	62-75-9	N-NITROSODIMETHYLAMINE	355	UJ	1.9	4.4	ng/kg	U	UJ	H	-118.7083	34.2353203
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	8015B	2/24/2012	3550B	DE293	6.7	1	84-15-1	O-TERPHENYL	3.7	U	1.9	4.4	mg/kg	U			-118.7116	34.2336237
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	8015B	2/24/2012	3550B	DE293	6.7	1	92-06-8	m-Terphenyl	3.7	U	1500	3700	mg/kg	U			-118.7116	34.2336237
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	8015B	2/24/2012	3550B	DE293	6.7	1	92-94-4	p-Terphenyl	3.7	U	0.50	0.50	mg/kg	U			-118.7116	34.2336237
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	8315A	2/22/2012	METHOD	DE293	6.7	1	50-00-0	FORMALDEHYDE	4900	J	1.6	3.8	ug/kg		J	S	-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	160.3M	2/29/2012	Gen Prep	DE294	9.4	1	MOIST	MOISTURE	9.4		1.6	3.8	%				-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	1625C	3/5/2012	3546	DE294	9.4	1	62-75-9	N-NITROSODIMETHYLAMINE	36.5	UJ	0.50	0.50	ng/kg	U	UJ	H	-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	8015B	2/24/2012	3550B	DE294	9.4	1	84-15-1	O-TERPHENYL	3.9	U	1.6	3.8	mg/kg	U			-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	8015B	2/24/2012	3550B	DE294	9.4	1	92-06-8	m-Terphenyl	3.9	U	1.6	3.8	mg/kg	U			-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	8015B	2/24/2012	3550B	DE294	9.4	1	92-94-4	p-Terphenyl	3.9	U	1.6	3.8	mg/kg	U			-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552764	LL	8315A	2/22/2012	METHOD	DE294	9.4	1	50-00-0	FORMALDEHYDE	3300	UJ	1.6	3.7	ug/kg	U	UJ	S	-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	160.3M	2/29/2012	Gen Prep	DE294	5.2	1	MOIST	MOISTURE	5.2		1.6	3.7	%				-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	1625C	3/5/2012	3546	DE294	5.2	1	62-75-9	N-NITROSODIMETHYLAMINE	35.2	UJ	640	1600	ng/kg	U	UJ	H	-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	8015B	2/24/2012	3550B	DE294	5.2	1	84-15-1	O-TERPHENYL	3.7	U	0.50	0.50	mg/kg	U			-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	8015B	2/24/2012	3550B	DE294	5.2	1	92-06-8	m-Terphenyl	3.7	U	17.8	35.6	mg/kg	U			-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	8015B	2/24/2012	3550B	DE294	5.2	1	92-94-4	p-Terphenyl	3.7	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552763	LL	8315A	2/22/2012	METHOD	DE294	5.2	1	50-00-0	FORMALDEHYDE	3200	UJ	640	1600	ug/kg	U	UJ	S	-118.7116	34.2336237
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6552765	LL	160.3M	2/29/2012	Gen Prep	DE294	10.2	1	MOIST	MOISTURE	10.2		0.50	0.50	%				-118.7116	34.2336237
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6552765	LL	8015B	2/24/2012	3550B	DE294	10.2	1	84-15-1	O-TERPHENYL	3.9	U	21.3	42.5	mg/kg	U			-118.7116	34.2336237
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6552765	LL	8015B	2/24/2012	3550B	DE294	10.2	1	92-06-8	m-Terphenyl	3.9	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6552765	LL	8015B	2/24/2012	3550B	DE294	10.2	1	92-94-4	p-Terphenyl	3.9	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	160.3M	2/29/2012	Gen Prep	DE294	19.8	1	MOIST	MOISTURE	19.8		630	1600	%				-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	1625C	3/5/2012	3546	DE294	19.8	10	62-75-9	N-NITROSODIMETHYLAMINE	414	U	177	353	ng/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	8015B	2/24/2012	3550B	DE294	19.8	1	84-15-1	O-TERPHENYL	4.4	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	8015B	2/24/2012	3550B	DE294	19.8	1	92-06-8	m-Terphenyl	4.4	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	8015B	2/24/2012	3550B	DE294	19.8	1	92-94-4	p-Terphenyl	4.4	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552766	LL	8315A	2/22/2012	METHOD	DE294	19.8	1	50-00-0	FORMALDEHYDE	3700	UJ	17.1	34.2	ug/kg	U	UJ	S	-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	160.3M	2/29/2012	Gen Prep	DE294	7.4	1	MOIST	MOISTURE	7.4		1.5	3.6	%				-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	1625C	3/5/2012	3546	DE294	7.4	1	62-75-9	N-NITROSODIMETHYLAMINE	35.9	U	1.5	3.6	ng/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	8015B	2/24/2012	3550B	DE294	7.4	1	84-15-1	O-TERPHENYL	3.8	U	610	1500	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	8015B	2/24/2012	3550B	DE294	7.4	1	92-06-8	m-Terphenyl	3.8	U	0.50	0.50	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	8015B	2/24/2012	3550B	DE294	7.4	1	92-94-4	p-Terphenyl	3.8	U	1.6	3.7	mg/kg	U			-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552767	LL	8315A	2/22/2012	METHOD	DE294	7.4	1	50-00-0	FORMALDEHYDE	7600	J	0.0329	1.06	ug/kg		J	S	-118.7116	34.2336237
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6552768	LL	160.3M	2/29/2012	Gen Prep	DE294	6.9	1	MOIST	MOISTURE	6.9		0.0233	5.31	%				-118.7116	34.2336237
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6552768	LL	8015B	2/24/2012	3550B	DE294	6.9	1	84-15-1	O-TERPHENYL	3.8	U	0.0195	10.6	mg/kg	U			-118.7116	34.2336237
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6552768	LL	8015B	2/24/2012	3550B	DE294	6.9	1	92-06-8	m-Terphenyl	3.8	U	0.0218	5.31	mg/kg	U			-118.7116	34.2336237
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6552768	LL	8015B	2/24/2012	3550B	DE294	6.9	1	92-94-4	p-Terphenyl	3.8	U	0.0251	10.6	mg/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	160.3M	2/29/2012	Gen Prep	DE295	6.7	1	MOIST	MOISTURE	6.7		0.0298	5.31	%				-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	1625C	3/5/2012	3546	DE295	6.7	1	62-75-9	N-NITROSODIMETHYLAMINE	35.5	U	0.0196	5.31	ng/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	8015B	3/5/2012	3550B	DE295	6.7	1	84-15-1	O-TERPHENYL	3.7	U	0.0150	5.31	mg/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	8015B	3/5/2012	3550B	DE295	6.7	1	92-06-8	m-Terphenyl	3.7	U	0.0133	5.31	mg/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	8015B	3/5/2012	3550B	DE295	6.7	1	92-94-4	p-Terphenyl	3.7	U	0.0143	5.31	mg/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556472	LL	8315A	2/29/2012	METHOD	DE295	6.7	1	50-00-0	FORMALDEHYDE	1600	U	0.00965	5.31	ug/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	160.3M	2/29/2012	Gen Prep	DE295	6.6	1	MOIST	MOISTURE	6.6		0.0181	5.31	%				-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	1625C	3/5/2012	3546	DE295	6.6	1	62-75-9	N-NITROSODIMETHYLAMINE	35.6	U	0.0550	0.110	ng/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	8015B	3/5/2012	3550B	DE295	6.6	1	84-15-1	O-TERPHENYL	3.7	U	5.50	11.0	mg/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	8015B	3/5/2012	3550B	DE295	6.6	1	92-06-8	m-Terphenyl	3.7	U	0.550	1.10	mg/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	8015B	3/5/2012	3550B	DE295	6.6	1	92-94-4	p-Terphenyl	3.7	U	0.110	0.220	mg/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556464	LL	8315A	2/29/2012	METHOD	DE295	6.6	1	50-00-0	FORMALDEHYDE	1600	U	0.0550	0.110	ug/kg	U			-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	160.3M	3/1/2012	Gen Prep	DE295	5.5	1	MOIST	MOISTURE	5.5		2.75	5.50	%				-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	1625C	3/5/2012	3546	DE295	5.5	1	62-75-9	N-NITROSODIMETHYLAMINE	42.5	U	0.220	0.440	ng/kg	U			-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	8015B	3/5/2012	3550B	DE295	5.5	1	84-15-1	O-TERPHENYL	3.7	U	0.0550	0.110	mg/kg	U			-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	8015B	3/5/2012	3550B	DE295	5.5	1	92-06-8	m-Terphenyl	3.7	U	0.220	0.440	mg/kg	U			-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	8015B	3/5/2012	3550B	DE295	5.5	1	92-94-4	p-Terphenyl	3.7	U	0.0550	0.110	mg/kg	U			-118.7116	34.2336237
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556465	LL	8315A	2/29/2012	METHOD	DE295	5.5	1	50-00-0	FORMALDEHYDE	970	J	11.0	22.0	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	160.3M	2/29/2012	Gen Prep	DE295	5.9	1	MOIST	MOISTURE	5.9		6.60	13.2	%				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	1625C	3/5/2012	3546	DE295	5.9	10	62-75-9	N-NITROSODIMETHYLAMINE	353	U	0.564	1.13	ng/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	8015B	3/5/2012	3550B	DE295	5.9	1	84-15-1	O-TERPHENYL	3.7	U	0.564	1.13	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	8015B	3/5/2012	3550B	DE295	5.9	1	92-06-8	m-Terphenyl	3.7	U	0.0569	0.114	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	8015B	3/5/2012	3550B	DE295	5.9	1	92-94-4	p-Terphenyl	3.7	U	280	560	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556470	LL	8315A	2/29/2012	METHOD	DE295	5.9	1	50-00-0	FORMALDEHYDE	1600	U	0.56	1.1	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	160.3M	2/29/2012	Gen Prep	DE295	3.7	1	MOIST	MOISTURE	3.7		0.56	1.1	%				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	1625C	3/5/2012	3546	DE295	3.7	1	62-75-9	N-NITROSODIMETHYLAMINE	34.2	U	0.56	1.1	ng/kg	U			-118.7116	34.2336237

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	8015B	3/5/2012	3550B	DE295	3.7	1	84-15-1	O-TERPHENYL	3.6	U	0.56	1.1	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	8015B	3/5/2012	3550B	DE295	3.7	1	92-06-8	m-Terphenyl	3.6	U	0.56	1.1	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	8015B	3/5/2012	3550B	DE295	3.7	1	92-94-4	p-Terphenyl	3.6	U	5.6	11	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556471	LL	8315A	2/29/2012	METHOD	DE295	3.7	1	50-00-0	FORMALDEHYDE	1500		19	38	ug/kg	J			-118.7116	34.2336237
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556463	LL	160.3M	2/29/2012	Gen Prep	DE295	5.2	1	MOIST	MOISTURE	5.2		0.96	1.9	%				-118.7116	34.2336237
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556463	LL	8015B	3/5/2012	3550B	DE295	5.2	1	84-15-1	O-TERPHENYL	3.7	U	0.96	1.9	mg/kg	U			-118.7116	34.2336237
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556463	LL	8015B	3/5/2012	3550B	DE295	5.2	1	92-06-8	m-Terphenyl	3.7	U	0.96	1.9	mg/kg	U			-118.7116	34.2336237
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556463	LL	8015B	3/5/2012	3550B	DE295	5.2	1	92-94-4	p-Terphenyl	3.7	U	0.96	1.9	mg/kg	U			-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	1746-01-6	2,3,7,8-TCDD	1.06	UJ	95	190	ng/kg	JB	UJ	B, FD	-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.31	UJ	95	190	ng/kg	JBQ	UJ	B, FD	-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	3268-87-9	OCDD	10.6	U	95	190	ng/kg	JB	U	B	-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.31	U	190	190	ng/kg	JBQ	U	B	-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	39001-02-0	OCDF	10.6	U	95	190	ng/kg	JB	U	B	-118.7116	34.2336237
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.31	UJ	190	190	ng/kg	JB	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	40321-76-4	1,2,3,7,8-PECDD	5.31	UJ	95	190	ng/kg	JBQ	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	51207-31-9	2,3,7,8-TCDF	1.06	UJ	95	190	ng/kg	JBQ	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.31	U	95	190	ng/kg	JB	U	B	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	57117-31-4	2,3,4,7,8-PECDF	5.31	UJ	95	190	ng/kg	JB	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	57117-41-6	1,2,3,7,8-PECDF	5.31	UJ	190	190	ng/kg	JB	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.31	UJ	95	190	ng/kg	JBQ	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.31	UJ	95	190	ng/kg	JB	UJ	B, FD	-118.71354	34.2323589
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.31	U	190	380	ng/kg	JB	U	B	-118.71359	34.2323947
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.31	U	190	380	ng/kg	JB	U	B	-118.71359	34.2323947
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.31	UJ	95	190	ng/kg	JB	UJ	B, FD	-118.71359	34.2323947
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	6556498	LL	1613B	2/29/2012	METHOD	DX158	6.7	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.31	U	95	190	ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-28-0	THALLIUM	0.278		95	190	mg/kg				-118.7136	34.2323317
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-31-5	TIN	11	U	470	940	mg/kg	U			-118.7136	34.2323317
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-32-6	TITANIUM	994		95	190	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-36-0	ANTIMONY	0.22	U	95	190	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-38-2	Arsenic	2.77		95	190	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-39-3	BARIUM	78.1		95	190	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-41-7	BERYLLIUM	0.401		95	190	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-42-8	BORON	5.5	U	95	190	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-43-9	CADMIUM	0.126		9.5	19	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-47-3	CHROMIUM	10.4		9.5	19	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-48-4	COBALT	4.05		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-50-8	COPPER	5.7		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-62-2	VANADIUM	23.6		9.5	19	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-66-6	ZINC	60.3		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-67-7	Zirconium	5.5	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-70-2	CALCIUM	4250		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7723-14-0	PHOSPHORUS	365		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7782-49-2	SELENIUM	0.44	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	7199	2/17/2012	Gen Prep	12B146	11.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.13	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	7199	2/17/2012	Gen Prep	12B146	11.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.13	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	7471A	2/21/2012	7471A	12B146	11.3	1.01	7439-97-6	Mercury	0.114	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015B	2/17/2012	Gen Prep	12B146	11.3	1	64-17-5	ETHANOL	560	U	0.96	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015B	2/17/2012	Gen Prep	12B146	11.3	1	67-56-1	METHANOL	560	U	0.96	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015B	2/17/2012	Gen Prep	12B146	11.3	1	67-63-0	Isopropanol	560	U	0.96	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC12C14	EFH (C12-C14)	1.1	U	9.5	19	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC15C20	EFH (C15-C20)	1.1	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC21C30	EFH (C21-C30)	15		9.5	19	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC30C40	EFH (C30-C40)	19		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC8C11	EFH (C8-C11)	1.1	U	0.96	1.9	mg/kg	J	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02R	EMXT	8015B EFH	2/17/2012	3550B	12B146	11.3	1	PHCC8C40	TOTAL EFH(C8-C40)	35		0.96	1.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015M	2/21/2012	Gen Prep	12B146	11.3	1	107-21-1	ETHYLENE GLYCOL	11	U	0.96	1.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015M	2/21/2012	Gen Prep	12B146	11.3	1	111-46-6	DIETHYLENE GLYCOL	17	U	50	100	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8015M	2/21/2012	Gen Prep	12B146	11.3	1	57-55-6	Propylene glycol	11	U	50	100	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02T	EMXT	8082	2/20/2012	3550B	12B146	11.3	20	12672-29-6	Aroclor 1248	1500		92	180	ug/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11096-82-5	Aroclor 1260	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11097-69-1	Aroclor 1254	1.9	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11100-14-4	Aroclor 1268	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11104-28-2	Aroclor 1221	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11126-42-4	Aroclor 5460	3.7	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	11141-16-5	Aroclor 1232	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	12642-23-8	Aroclor 5442	3.7	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	12674-11-2	Aroclor 1016	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	37324-23-5	Aroclor 1262	1.9	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	53469-21-9	Aroclor 1242	1.9	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8082	2/18/2012	3550B	12B146	11.3	1	63496-31-1	Aroclor 5432	3.7	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	100-01-6	4-NITROANILINE	190	U	9.2	18	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	100-02-7	4-NITROPHENOL	380	U	9.2	18	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	100-51-6	BENZYL ALCOHOL	190	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	190	U	9.2	18	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	105-67-9	2,4-DIMETHYLPHENOL	190	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	106-44-5	4-METHYLPHENOL	190	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	106-46-7	1,4-DICHLOROBENZENE	190	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	106-47-8	4-CHLOROANILINE	190	U	0.93	1.9	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	108-68-9	3,5-Dimethylphenol	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	108-95-2	PHENOL	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	111-76-2	2-butoxy-Ethanol	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	118-74-1	HEXACHLOROBENZENE	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	119-64-2	Tetralin	190	U	100	200	ug/kg	U			-118.71354	34.2323589

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	120-82-1	1,2,4-Trichlorobenzene	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	120-83-2	2,4-DICHLOROPHENOL	190	U	100	200	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	121-14-2	2,4-DINITROTOLUENE	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	122-99-6	2-phenoxy-Ethanol	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	132-64-9	DIBENZOFURAN	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	190	U	50	100	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	51-28-5	2,4-DINITROPHENOL	380	U	500	1000	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	380	U	0.273	0.545	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	541-73-1	1,3-DICHLOROBENZENE	190	U	0.1	0.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	59-50-7	4-CHLORO-3-METHYLPHENOL	190	U	0.49	0.98	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	606-20-2	2,6-DINITROTOLUENE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	62-53-3	ANILINE	380	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	65-85-0	BENZOIC ACID	750	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	67-72-1	HEXACHLOROETHANE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	78-59-1	ISOPHORONE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	86-30-6	N-NITROSODIPHENYLAMINE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	86-74-8	CARBAZOLE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	87-68-3	HEXACHLOROBUTADIENE	190	U	5.1	10	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	87-86-5	PENTACHLOROPHENOL	380	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	88-06-2	2,4,6-TRICHLOROPHENOL	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	88-74-4	2-NITROANILINE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	88-75-5	2-NITROPHENOL	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	91-58-7	2-CHLORONAPHTHALENE	190	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	91-94-1	3,3'-DICHLOROBENZIDINE	190	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	92-87-5	BENZIDINE	940	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	95-48-7	2-METHYLPHENOL	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	95-50-1	1,2-Dichlorobenzene	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	95-57-8	2-CHLOROPHENOL	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	95-95-4	2,4,5-TRICHLOROPHENOL	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	98-95-3	NITROBENZENE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C	2/16/2012	3550B	12B146	11.3	1	99-09-2	3-NITROANILINE	190	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	117-84-0	Di-n-octylphthalate	19	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	120-12-7	ANTHRACENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	129-00-0	PYRENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	131-11-3	Dimethylphthalate	19	U	5.1	10	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	5.1	10	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	206-44-0	FLUORANTHENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	1.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	208-96-8	ACENAPHTHYLENE	1.9	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	218-01-9	CHRYSENE	1.9	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	50-32-8	BENZO(A)PYRENE	1.9	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	2.0	5.1	ug/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	83-32-9	ACENAPHTHENE	1.9	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	84-66-2	Diethylphthalate	19	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	84-74-2	Di-n-butylphthalate	19	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	85-01-8	PHENANTHRENE	1.9	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	85-68-7	Butylbenzylphthalate	19	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	86-73-7	FLUORENE	1.9	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	91-20-3	NAPHTHALENE	1.9	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8270C SIM	2/16/2012	3550B	12B146	11.3	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	5.1	10	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	118-96-7	2,4,6-TRINITROTOLUENE	100	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	121-14-2	2,4-DINITROTOLUENE	100	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	121-82-4	RDX	100	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	100	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	2691-41-0	HMX	100	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	100	U	2.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	479-45-8	Tetryl	100	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	95-48-7	2-METHYLPHENOL	180	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	95-50-1	1,2-Dichlorobenzene	180	U	1.0	5.1	ug/kg	U			-118.71359	34.2323947
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	95-57-8	2-CHLOROPHENOL	180	U	1.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	2.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	98-95-3	NITROBENZENE	180	U	2.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	99-09-2	3-NITROANILINE	180	U	1.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U	1.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	117-84-0	Di-n-octylphthalate	18	U	1.0	5.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	120-12-7	ANTHRACENE	1.9	U	5.1	10	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	129-00-0	PYRENE	1.9	U	0.538	1.08	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	131-11-3	Dimethylphthalate	18	U	10.8	21.5	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	10.1	20.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	0.101	0.201	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	1.01	2.01	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	206-44-0	FLUORANTHENE	1.9	U	5.03	10.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	0.251	0.503	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	208-96-8	ACENAPHTHYLENE	1.9	U	0.0503	0.101	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	218-01-9	CHRYSENE	1.9	U	0.201	0.402	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	50-32-8	BENZO(A)PYRENE	1.9	U	0.0503	0.101	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	50.3	101	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	0.251	0.503	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	0.0503	0.101	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	83-32-9	ACENAPHTHENE	1.9	U	5.03	10.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	84-66-2	Diethylphthalate	18	U	0.503	1.01	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	84-74-2	Di-n-butylphthalate	18	U	0.101	0.201	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	85-01-8	PHENANTHRENE	1.9	U	0.201	0.402	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	85-68-7	Butylbenzylphthalate	18	U	0.201	0.402	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	86-73-7	FLUORENE	1.9	U	0.0503	0.101	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	91-20-3	NAPHTHALENE	3.8		50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C SIM	2/22/2012	3550B	12B174	8.3	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	118-96-7	2,4,6-TRINITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	121-14-2	2,4-DINITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	121-82-4	RDX	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	2691-41-0	HMX	100	U	99	200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	479-45-8	Tetryl	100	U	99	200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	606-20-2	2,6-DINITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	88-72-2	2-NITROTOLUENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	98-95-3	NITROBENZENE	100	U	50	99	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-08-1	3-NITROTOLUENE	100	U	490	990	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-35-4	1,3,5-Trinitrobenzene	100	U	490	990	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-65-0	1,3-DINITROBENZENE	100	U	0.278	0.556	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-99-0	4-NITROTOLUENE	100	U	0.1	0.1	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8332	2/24/2012	Gen Prep	12B174	0	1	55-63-0	Nitroglycerin	1000	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8332	2/24/2012	Gen Prep	12B174	0	1	78-11-5	PETN	1000	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	9014	2/28/2012	Gen Prep	12B174	8.3	1	57-12-5	CYANIDE	0.545	U	0.94	4.7	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	9045D	2/17/2012	Gen Prep	12B174	8.3	1	pH	PH	10.17		0.94	4.7	pH unit	0.1			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8015B GRO	2/22/2012	5035	12B174	7.9	0.9	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	22		0.94	4.7	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	100-41-4	ETHYLBENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	100-42-5	STYRENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	10061-01-5	CIS-1,3-DICHLOROPROPENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	103-65-1	N-PROPYLBENZENE	5.1	U	4.7	9.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	104-51-8	N-BUTYLBENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	106-43-4	4-CHLOROTOLUENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	106-46-7	1,4-DICHLOROBENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	106-93-4	1,2-Dibromoethane (EDB)	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	107-06-2	1,2-Dichloroethane	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	108-10-1	4-METHYL-2-PENTANONE (MIBK)	10	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	108-67-8	1,3,5-Trimethylbenzene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	108-86-1	BROMOBENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	108-88-3	TOLUENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	108-90-7	Chlorobenzene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	110-75-8	2-CHLOROETHYL VINYL ETHER	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	120-82-1	1,2,4-Trichlorobenzene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	124-48-1	DIBROMOCHLOROMETHANE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	127-18-4	TETRACHLOROETHENE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	135-98-8	SEC-BUTYLBENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	142-28-9	1,3-DICHLOROPROPANE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	156-59-2	CIS-1,2-DICHLOROETHENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	156-60-5	TRANS-1,2-DICHLOROETHENE	5.1	U	4.7	9.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	179601-23-1	m,p-Xylene	5.1	U	4.7	9.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	541-73-1	1,3-DICHLOROBENZENE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	56-23-5	CARBON TETRACHLORIDE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	563-58-6	1,1-Dichloropropene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	591-78-6	2-HEXANONE	10	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	594-20-7	2,2-DICHLOROPROPANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	630-20-6	1,1,1,2-Tetrachloroethane	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	67-64-1	ACETONE	10	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	67-66-3	CHLOROFORM	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	71-43-2	BENZENE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	71-55-6	1,1,1-Trichloroethane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	74-83-9	BROMOMETHANE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	74-87-3	CHLOROMETHANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	74-95-3	DIBROMOMETHANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	74-97-5	BROMOCHLOROMETHANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-00-3	Chloroethane	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-01-4	VINYL CHLORIDE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-09-2	METHYLENE CHLORIDE	5.1	U	4.7	9.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-25-2	BROMOFORM	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-27-4	BROMODICHLOROMETHANE	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-34-3	1,1-Dichloroethane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-35-4	1,1-Dichloroethene	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-69-4	TRICHLOROFLUOROMETHANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-71-8	DICHLORODIFLUOROMETHANE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	75-88-7	2-Chloro-1,1,1-trifluoroethane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	78-87-5	1,2-Dichloropropane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	78-93-3	2-BUTANONE (MEK)	10	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	79-00-5	1,1,2-Trichloroethane	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	79-01-6	TRICHLOROETHENE	5.1	U	1.9	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	79-38-9	Chlorotrifluoroethylene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	87-61-6	1,2,3-Trichlorobenzene	5.1	U	0.94	4.7	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	87-68-3	HEXACHLOROBUTADIENE	5.1	U	4.2	8.5	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	95-47-6	O-XYLENE	5.1	U	0.803	1.61	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	95-49-8	2-CHLOROTOLUENE	5.1	U	0.803	1.61	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	95-50-1	1,2-Dichlorobenzene	5.1	U	0.535	1.07	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	95-63-6	1,2,4-Trimethylbenzene	5.1	U	10.7	21.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	96-12-8	1,2-Dibromo-3-Chloropropane	5.1	U	12.7	25.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	96-18-4	1,2,3-Trichloropropane	5.1	U	10.6	21.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	98-06-6	TERT-BUTYLBENZENE	5.1	U	0.106	0.212	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	98-82-8	ISOPROPYLBENZENE	5.1	U	1.06	2.12	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03	EMXT	8260B	2/22/2012	5035	12B174	7.9	0.94	99-87-6	P-ISOPROPYLTOLUENE	5.1	U	5.30	10.6	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.5	2/17/2012	N	26.5	26.5	ft bgs	SO	DeepBoring	B174-03R	EMXT	8260B SIM	2/23/2012	5035	12B174	7.9	0.94	123-91-1	1,4-DIOXANE	10	U	0.265	0.530	ug/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	300.0	2/21/2012	Gen Prep	12B174	7.0	1	16984-48-8	FLUORIDE	0.624	J	0.212	0.424	mg/kg	J	J	Z	-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	314.0	2/23/2012	Gen Prep	12B174	7.0	1	14797-73-0	PERCHLORATE	21.5	U	31.8	63.6	ug/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7429-90-5	ALUMINUM	8830	J	0.0530	0.106	mg/kg		J	Q	-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-89-6	IRON	18200		53.0	106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-92-1	LEAD	3.38	J	0.265	0.530	mg/kg		J	Q, E	-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-93-2	LITHIUM	24		4.9	9.7	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-95-4	MAGNESIUM	4350		0.0530	0.106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-96-5	MANGANESE	258		5.30	10.6	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7439-98-7	MOLYBDENUM	0.781		0.530	1.06	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-02-0	NICKEL	7.69		0.106	0.212	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-09-7	POTASSIUM	2890		0.212	0.424	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-22-4	SILVER	0.101	U	0.212	0.424	mg/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-23-5	SODIUM	298		0.0530	0.106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-24-6	STRONTIUM	18.6		2.65	5.30	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-28-0	THALLIUM	0.204		0.0530	0.106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-31-5	TIN	10.1	U	0.212	0.424	mg/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-32-6	TITANIUM	857		0.0530	0.106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-36-0	ANTIMONY	0.112	J	0.212	0.424	mg/kg	J	J	Q, Z	-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-38-2	Arsenic	2.98		0.0530	0.106	mg/kg				-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-39-3	BARIUM	75	J	1.59	3.18	mg/kg		J	Q	-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-41-7	BERYLLIUM	0.379		2.65	5.30	mg/kg				-118.70844	34.2352597
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	118-96-7	2,4,6-TRINITROTOLUENE	99	U	10.6	21.2	ug/kg	U			-118.70844	34.2352597
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	121-14-2	2,4-DINITROTOLUENE	99	U	6.36	12.7	ug/kg	U			-118.70844	34.2352597
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	121-82-4	RDX	99	U	0.212	0.424	ug/kg	U			-118.70844	34.2352597
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	99	U	0.535	1.07	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	2691-41-0	HMX	99	U	0.535	1.07	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	99	U	0.0535	0.107	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	479-45-8	Tetryl	99	U	270	540	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	270	540	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	606-20-2	2,6-DINITROTOLUENE	99	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	88-72-2	2-NITROTOLUENE	99	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	98-95-3	NITROBENZENE	99	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	99-08-1	3-NITROTOLUENE	99	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	99-35-4	1,3,5-Trinitrobenzene	99	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	99-65-0	1,3-DINITROBENZENE	99	U	5.4	11	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8330A	2/23/2012	Gen Prep	12B130	0	0.99	99-99-0	4-NITROTOLUENE	99	U	8.0	16	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8332	2/24/2012	Gen Prep	12B130	0	0.99	55-63-0	Nitroglycerin	990	U	0.91	1.8	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	8332	2/24/2012	Gen Prep	12B130	0	0.99	78-11-5	PETN	990	U	0.91	1.8	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	9014	2/17/2012	Gen Prep	12B130	10.1	1	57-12-5	CYANIDE	0.556	U	1.49	2.99	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	B130-02	EMXT	9045D	2/14/2012	Gen Prep	12B130	10.1	1	pH	PH	8.99		2.49	4.98	pH unit	0.1			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8015B GRO	2/15/2012	5035	12B130	10.4	0.84	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.94	U	5.97	11.9	mg/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	100-41-4	ETHYLBENZENE	4.7	U	0.199	0.398	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	100-42-5	STYRENE	4.7	U	2.71	5.43	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	10061-01-5	CIS-1,3-DICHLOROPROPENE	4.7	U	0.543	1.09	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	10061-02-6	TRANS-1,3-DICHLOROPROPENE	4.7	U	0.543	1.09	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	103-65-1	N-PROPYLBENZENE	4.7	U	0.0536	0.107	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	104-51-8	N-BUTYLBENZENE	4.7	U	270	540	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	106-43-4	4-CHLOROTOLUENE	4.7	U	270	540	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	106-46-7	1,4-DICHLOROBENZENE	4.7	U	270	540	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	106-93-4	1,2-Dibromoethane (EDB)	4.7	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	107-06-2	1,2-Dichloroethane	4.7	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	108-10-1	4-METHYL-2-PENTANONE (MIBK)	9.4	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	108-67-8	1,3,5-Trimethylbenzene	4.7	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	108-86-1	BROMOBENZENE	4.7	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	108-88-3	TOLUENE	4.7	U	0.54	1.1	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	108-90-7	Chlorobenzene	4.7	U	0.49	0.98	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	110-75-8	2-CHLOROETHYL VINYL ETHER	4.7	U	5.4	11	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	120-82-1	1,2,4-Trichlorobenzene	4.7	U	8.1	16	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	124-48-1	DIBROMOCHLOROMETHANE	4.7	U	5.4	11	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	127-18-4	TETRACHLOROETHENE	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	135-98-8	SEC-BUTYLBENZENE	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	142-28-9	1,3-DICHLOROPROPANE	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	156-59-2	CIS-1,2-DICHLOROETHENE	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	156-60-5	TRANS-1,2-DICHLOROETHENE	4.7	U	13	26	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	179601-23-1	m,p-Xylene	4.7	U	6.7	13	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	541-73-1	1,3-DICHLOROBENZENE	4.7	U	13	26	ug/kg	U			-118.71354	34.2323589

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	56-23-5	CARBON TETRACHLORIDE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	563-58-6	1,1-Dichloropropene	4.7	U	180	360	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	591-78-6	2-HEXANONE	9.4	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	594-20-7	2,2-DICHLOROPROPANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	630-20-6	1,1,1,2-Tetrachloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	67-64-1	ACETONE	9.4	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	67-66-3	CHLOROFORM	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	71-43-2	BENZENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	71-55-6	1,1,1-Trichloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	74-83-9	BROMOMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	74-87-3	CHLOROMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	74-95-3	DIBROMOMETHANE	4.7	U	180	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	74-97-5	BROMOCHLOROMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-00-3	Chloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-01-4	VINYL CHLORIDE	4.7	U	180	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-09-2	METHYLENE CHLORIDE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-25-2	BROMOFORM	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-27-4	BROMODICHLOROMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-34-3	1,1-Dichloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-35-4	1,1-Dichloroethene	4.7	U	180	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-69-4	TRICHLOROFLUOROMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-71-8	DICHLORODIFLUOROMETHANE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	75-88-7	2-Chloro-1,1,1-trifluoroethane	4.7	U	180	360	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.7	U	180	360	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	78-87-5	1,2-Dichloropropane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	78-93-3	2-BUTANONE (MEK)	9.4	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	79-00-5	1,1,2-Trichloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	79-01-6	TRICHLOROETHENE	4.7	U	180	360	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	79-34-5	1,1,2,2-Tetrachloroethane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	79-38-9	Chlorotrifluoroethylene	4.7	U	360	720	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	87-61-6	1,2,3-Trichlorobenzene	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	87-68-3	HEXACHLOROBUTADIENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	95-47-6	O-XYLENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	95-49-8	2-CHLOROTOLUENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	95-50-1	1,2-Dichlorobenzene	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	95-63-6	1,2,4-Trimethylbenzene	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	96-18-4	1,2,3-Trichloropropane	4.7	U	180	360	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	98-06-6	TERT-BUTYLBENZENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	98-82-8	ISOPROPYLBENZENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B	2/14/2012	5035	12B130	10.4	0.84	99-87-6	P-ISOPROPYLTOLUENE	4.7	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-146-SA5C-SB-48.0	2/13/2012	N	48	48	ft bgs	SO	DeepBoring	B130-01	EMXT	8260B SIM	2/15/2012	5035	12B130	10.4	0.76	123-91-1	1,4-DIOXANE	8.5	U	91	180	ug/kg	U			-118.71354	34.2323589
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	300.0	2/16/2012	Gen Prep	12B137	6.6	1	14797-55-8	Nitrate-NO3	1.61	U	460	900	mg/kg	U			-118.71354	34.2323589
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	300.0	2/16/2012	Gen Prep	12B137	6.6	1	14797-65-0	Nitrite-NO2	1.61	U	91	180	mg/kg	U			-118.71354	34.2323589
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	300.0	2/16/2012	Gen Prep	12B137	6.6	1	16984-48-8	FLUORIDE	5.15		91	180	mg/kg				-118.71354	34.2323589
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	314.0	2/17/2012	Gen Prep	12B137	6.6	1	14797-73-0	PERCHLORATE	21.4	U	91	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7429-90-5	ALUMINUM	9890		91	180	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-89-6	IRON	18000		91	180	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-92-1	LEAD	3.61		91	180	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-93-2	LITHIUM	15.3		9.1	18	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-95-4	MAGNESIUM	3800		9.1	18	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-96-5	MANGANESE	235		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7439-98-7	MOLYBDENUM	1.77		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-02-0	NICKEL	6.49		9.1	18	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-09-7	POTASSIUM	2910		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-22-4	SILVER	0.106	U	0.92	1.8	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-23-5	SODIUM	325		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-24-6	STRONTIUM	24.7		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	67-64-1	ACETONE	9.7	U	0.92	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-28-0	THALLIUM	0.22		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-31-5	TIN	10.6	U	0.92	1.8	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-32-6	TITANIUM	1030		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-36-0	ANTIMONY	0.107	J	0.92	1.8	mg/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-38-2	Arsenic	2.69		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-39-3	BARIUM	92.8		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-41-7	BERYLLIUM	0.345		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-42-8	BORON	5.3	U	9.1	18	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-43-9	CADMIUM	0.112		9.1	18	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-47-3	CHROMIUM	17.2		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-48-4	COBALT	4.83		9.1	18	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-50-8	COPPER	9.43		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-62-2	VANADIUM	28.5		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-66-6	ZINC	44.2		0.92	1.8	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-67-7	Zirconium	5.3	U	0.92	1.8	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7440-70-2	CALCIUM	3400		0.1	0.1	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7723-14-0	PHOSPHORUS	425		0.811	1.62	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	6020	2/24/2012	Gen Prep	12B137	6.6	0.99	7782-49-2	SELENIUM	0.424	U	0.811	1.62	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	7199	2/17/2012	Gen Prep	12B137	6.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	U	0.541	1.08	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	7199	2/17/2012	Gen Prep	12B137	6.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	U	10.8	21.6	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	7471A	2/21/2012	7471A	12B137	6.6	1	7439-97-6	Mercury	0.107	U	12.7	25.3	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015B	2/15/2012	Gen Prep	12B137	6.6	1	64-17-5	ETHANOL	540	U	10.6	21.1	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015B	2/15/2012	Gen Prep	12B137	6.6	1	67-56-1	METHANOL	540	U	0.106	0.211	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015B	2/15/2012	Gen Prep	12B137	6.6	1	67-63-0	Isopropanol	540	U	1.06	2.11	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC12C14	EFH (C12-C14)	1.1	U	0.0528	0.106	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC15C20	EFH (C15-C20)	0.69	J	0.211	0.422	mg/kg	J	J	Z	-118.7136	34.2323317

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC21C30	EFH (C21-C30)	19		31.7	63.3	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC30C40	EFH (C30-C40)	22		0.0528	0.106	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC8C11	EFH (C8-C11)	1.1	U	52.8	106	mg/kg		U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02R	EMXT	8015B EFH	2/17/2012	3550B	12B137	6.6	1	PHCC8C40	TOTAL EFH(C8-C40)	43		0.264	0.528	mg/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015M	2/15/2012	Gen Prep	12B137	6.6	1	107-21-1	ETHYLENE GLYCOL	11	U	0.0528	0.106	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015M	2/15/2012	Gen Prep	12B137	6.6	1	111-46-6	DIETHYLENE GLYCOL	16	U	5.28	10.6	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8015M	2/15/2012	Gen Prep	12B137	6.6	1	57-55-6	Propylene glycol	11	U	0.528	1.06	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11096-82-5	Aroclor 1260	1.8	U	0.106	0.211	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11097-69-1	Aroclor 1254	1.8	U	0.211	0.422	ug/kg	U			-118.7136	34.2323317
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-66-6	ZINC	47.1		0.211	0.422	mg/kg				-118.7136	34.2323317
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-67-7	Zirconium	4.98	U	0.0528	0.106	mg/kg	U			-118.7136	34.2323317
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-70-2	CALCIUM	1890	J	0.00931	5.35	mg/kg		J	Q	-118.7136	34.2323317
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7723-14-0	PHOSPHORUS	323		0.0146	5.35	mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7782-49-2	SELENIUM	0.398	U	0.0203	5.35	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6850	3/2/2012	Gen Prep	12B189	7.9	1	14797-73-0	PERCHLORATE	5.43	U	0.0348	1.05	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07R	EMXT	7199	2/24/2012	Gen Prep	12B189	7.9	1	18540-29-9	HEXAVALENT CHROMIUM	1.09	U	0.0231	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	7199	2/24/2012	Gen Prep	12B189	7.9	1	18540-29-9	HEXAVALENT CHROMIUM	1.09	U	0.0165	10.5	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	7471A	2/28/2012	7471A	12B189	7.9	0.988	7439-97-6	Mercury	0.107	U	0.0242	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.9	1	64-17-5	ETHANOL	540	U	0.0270	10.5	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.9	1	67-56-1	METHANOL	540	U	0.0223	5.26	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.9	1	67-63-0	Isopropanol	540	U	0.0295	5.26	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC12C14	EFH (C12-C14)	1.1	U	0.0144	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC15C20	EFH (C15-C20)	1.1	U	0.0134	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC21C30	EFH (C21-C30)	0.65	J	0.0133	5.26	mg/kg	J	J	FD, Z	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC30C40	EFH (C30-C40)	1.1	U	0.0235	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC8C11	EFH (C8-C11)	0.56	J	0.0150	5.26	mg/kg	J	J	Z	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.9	1	PHCC8C40	TOTAL EFH(C8-C40)	1.2	J	0.00931	5.26	mg/kg		J	FD	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015B GRO	2/23/2012	5035	12B189	7.9	0.9	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.98	U	0.0229	5.26	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.9	1	107-21-1	ETHYLENE GLYCOL	11	U	0.0235	1.05	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.9	1	111-46-6	DIETHYLENE GLYCOL	16	U	0.0326	5.23	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.9	1	57-55-6	Propylene glycol	11	U	0.0290	10.5	mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11096-82-5	Aroclor 1260	13	U	0.0374	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11097-69-1	Aroclor 1254	13	U	0.0208	10.5	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11100-14-4	Aroclor 1268	13	U	0.0306	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11104-28-2	Aroclor 1221	13	U	0.0300	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11126-42-4	Aroclor 5460	26	U	0.0236	1.05	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	11141-16-5	Aroclor 1232	13	U	0.0217	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	12642-23-8	Aroclor 5442	26	U	0.0159	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	12672-29-6	Aroclor 1248	13	U	0.0163	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	12674-11-2	Aroclor 1016	13	U	0.0215	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	37324-23-5	Aroclor 1262	13	U	0.0208	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	53469-21-9	Aroclor 1242	13	U	0.0165	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8082	2/25/2012	3550B	12B189	0	7.9	63496-31-1	Aroclor 5432	26	U	0.0222	5.23	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	100-01-6	4-NITROANILINE	180	U	0.0202	1.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	100-02-7	4-NITROPHENOL	360	U	0.0197	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	100-51-6	BENZYL ALCOHOL	180	U	0.0151	10.0	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	0.0158	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	0.0228	10.0	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	106-44-5	4-METHYLPHENOL	180	U	0.0195	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	106-46-7	1,4-DICHLOROBENZENE	180	U	0.0210	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	106-47-8	4-CHLOROANILINE	180	U	0.0148	1.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	108-68-9	3,5-Dimethylphenol	180	U	0.0163	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	108-95-2	PHENOL	180	U	0.0102	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	0.00852	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	111-76-2	2-butoxy-Ethanol	180	U	0.0104	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	0.0197	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	118-74-1	HEXACHLOROBENZENE	180	U	0.0123	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	119-64-2	Tetralin	180	U	0.0131	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	120-82-1	1,2,4-Trichlorobenzene	180	U	0.0171	5.00	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	120-83-2	2,4-DICHLOROPHENOL	180	U	0.0322	1.09	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	121-14-2	2,4-DINITROTOLUENE	180	U	0.0225	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	0.0221	10.9	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	122-99-6	2-phenoxy-Ethanol	180	U	0.0242	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	132-64-9	DIBENZOFURAN	180	U	0.0267	10.9	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	0.0284	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	51-28-5	2,4-DINITROPHENOL	360	U	0.0203	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U	0.0159	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	541-73-1	1,3-DICHLOROBENZENE	180	U	0.0155	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	0.0145	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	606-20-2	2,6-DINITROTOLUENE	180	U	0.0226	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	62-53-3	ANILINE	360	U	0.0148	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	0.0106	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	65-85-0	BENZOIC ACID	720	U	0.0162	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	67-72-1	HEXACHLOROETHANE	180	U	0.0208	5.43	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	0.90	1.8	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	1.8	3.5	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	78-59-1	ISOPHORONE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	180	350	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	86-74-8	CARBAZOLE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	87-68-3	HEXACHLOROBUTADIENE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	87-86-5	PENTACHLOROPHENOL	360	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	88-74-4	2-NITROANILINE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	88-75-5	2-NITROPHENOL	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	91-58-7	2-CHLORONAPHTHALENE	180	U	89	180	ug/kg	U			-118.71164	34.2336075

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	92-87-5	BENZIDINE	900	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	95-48-7	2-METHYLPHENOL	180	U	180	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	95-50-1	1,2-Dichlorobenzene	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	95-57-8	2-CHLOROPHENOL	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	180	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	98-95-3	NITROBENZENE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C	2/27/2012	3550B	12B189	7.9	1	99-09-2	3-NITROANILINE	180	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	UJ	89	180	ug/kg	U	UJ	FD	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	117-84-0	Di-n-octylphthalate	18	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	120-12-7	ANTHRACENE	1.8	U	180	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	129-00-0	PYRENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	131-11-3	Dimethylphthalate	18	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	180	350	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	UJ	89	180	ug/kg	U	UJ	FD	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	206-44-0	FLUORANTHENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	UJ	180	350	ug/kg	U	UJ	FD	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	208-96-8	ACENAPHTHYLENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	218-01-9	CHRYSENE	1.8	U	350	710	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	50-32-8	BENZO(A)PYRENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	83-32-9	ACENAPHTHENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	84-66-2	Diethylphthalate	18	U	180	350	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	84-74-2	Di-n-butylphthalate	18	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	85-01-8	PHENANTHRENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	85-68-7	Butylbenzylphthalate	18	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	86-73-7	FLUORENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	91-20-3	NAPHTHALENE	1.8	U	450	880	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.9	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	89	180	ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	9045D	2/22/2012	Gen Prep	12B189	7.9	1	pH	PH	8.14		89	180	pH unit	0.1			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.5	1	14797-55-8	Nitrate-NO3	1.41	J	89	180	mg/kg	J	J	Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.5	1	14797-65-0	Nitrite-NO2	1.62	U	89	180	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.5	1	16984-48-8	FLUORIDE	4.33		89	180	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	314.0	2/23/2012	Gen Prep	12B189	7.5	1	14797-73-0	PERCHLORATE	21.6	U	89	180	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7429-90-5	ALUMINUM	8510	J	8.9	18	mg/kg		J	Q	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-89-6	IRON	17500		8.9	18	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-92-1	LEAD	3.44	J	0.90	1.8	mg/kg		J	Q, E	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-93-2	LITHIUM	20.2		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-95-4	MAGNESIUM	3410		8.9	18	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-96-5	MANGANESE	224		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7439-98-7	MOLYBDENUM	0.77		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-02-0	NICKEL	6.66		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-09-7	POTASSIUM	2670		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-22-4	SILVER	0.106	U	0.90	1.8	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-23-5	SODIUM	250		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-24-6	STRONTIUM	9.75		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-28-0	THALLIUM	0.306		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-31-5	TIN	10.6	U	0.90	1.8	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-32-6	TITANIUM	905		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-36-0	ANTIMONY	0.116	J	0.90	1.8	mg/kg	J	J	Q, Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-38-2	Arsenic	3.95		0.90	1.8	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-39-3	BARIUM	63.3	J	8.9	18	mg/kg		J	Q	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-41-7	BERYLLIUM	0.398		8.9	18	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.35	U	0.90	1.8	ng/kg	JB	U	B	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.35	UJ	8.9	18	ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.35	U	0.90	1.8	ng/kg	JB	U	B	-118.71164	34.2336075
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	1746-01-6	2,3,7,8-TCDD	1.05	U	50	99	ng/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.26	U	50	99	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	3268-87-9	OCDD	10.5	U	50	99	ng/kg	JB	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.26	U	490	990	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	39001-02-0	OCDF	10.5	U	490	990	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.26	U	0.1	0.1	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	40321-76-4	1,2,3,7,8-PECDD	5.26	U	0.50	1.0	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	51207-31-9	2,3,7,8-TCDF	1.05	U	0.97	4.9	ng/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.26	U	0.97	4.9	ng/kg	JB	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	57117-31-4	2,3,4,7,8-PECDF	5.26	U	0.97	4.9	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	57117-41-6	1,2,3,7,8-PECDF	5.26	U	0.97	4.9	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.26	U	0.97	4.9	ng/kg	JB	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.26	U	0.97	4.9	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.26	U	0.97	4.9	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.26	U	0.97	4.9	ng/kg	JB	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.26	U	0.97	4.9	ng/kg	JB	U	B	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	6556493	LL	1613B	2/28/2012	METHOD	DX158	5.5	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.26	U	0.97	4.9	ng/kg	JBQ	U	B	-118.71163	34.233596
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	1746-01-6	2,3,7,8-TCDD	1.05	U	0.97	4.9	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.23	U	0.97	4.9	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	3268-87-9	OCDD	43.6		4.9	9.7	ng/kg	B			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.5		1.9	4.9	ng/kg	B			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	39001-02-0	OCDF	1.2	J	0.97	4.9	ng/kg	JB	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.23	U	0.97	4.9	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	40321-76-4	1,2,3,7,8-PECDD	5.23	U	0.97	4.9	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	51207-31-9	2,3,7,8-TCDF	1.05	U	0.97	4.9	ng/kg	U			-118.7116	34.2336237

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.23	U	1.9	4.9	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	57117-31-4	2,3,4,7,8-PECDF	5.23	U	1.9	4.9	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	57117-41-6	1,2,3,7,8-PECDF	5.23	U	0.97	4.9	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.23	U	0.97	4.9	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	57653-85-7	1,2,3,6,7,8-HXCDD	0.259	J	1.9	4.9	ng/kg	JB	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.23	U	2200	4300	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.23	U	2200	4300	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.23	U	1100	2200	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	6556496	LL	1613B	2/28/2012	METHOD	DX158	5.9	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.23	U	1100	2200	ng/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	1746-01-6	2,3,7,8-TCDD	1	U	1100	2200	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	19408-74-3	1,2,3,7,8,9-HXCDD	5	U	5400	11000	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	3268-87-9	OCDD	10	U	1100	2200	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5	U	1100	2200	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	39001-02-0	OCDF	10	U	1100	2200	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	39227-28-6	1,2,3,4,7,8-HxCDD	5	U	1100	2200	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	40321-76-4	1,2,3,7,8-PECDD	5	U	1100	2200	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	51207-31-9	2,3,7,8-TCDF	1	U	110	220	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5	U	110	220	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	57117-31-4	2,3,4,7,8-PECDF	5	U	11	22	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	57117-41-6	1,2,3,7,8-PECDF	5	U	11	22	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	57117-44-9	1,2,3,6,7,8-HXCDF	5	U	110	220	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	57653-85-7	1,2,3,6,7,8-HXCDD	5	U	11	22	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	60851-34-5	2,3,4,6,7,8-HXCDF	5	U	11	22	ng/kg	JBQ	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5	U	11	22	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	70648-26-9	1,2,3,4,7,8-HXCDF	5	U	11	22	ng/kg	JB	U	B	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	6556497	LL	1613B	2/29/2012	METHOD	DX158	3.7	1	72918-21-9	1,2,3,7,8,9-HXCDF	5	U	11	22	ng/kg	U			-118.7116	34.2336237
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	1746-01-6	2,3,7,8-TCDD	0.0341	J	0.91	1.8	ng/kg	JQ	J	Z	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.43	U	1.8	3.5	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	3268-87-9	OCDD	12.1		0.91	1.8	ng/kg	B			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.43	U	1.8	3.5	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	39001-02-0	OCDF	10.9	U	0.91	1.8	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.43	U	0.91	1.8	ng/kg	JBQ	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	40321-76-4	1,2,3,7,8-PECDD	5.43	U	0.91	1.8	ng/kg	JBQ	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	51207-31-9	2,3,7,8-TCDF	1.09	U	1.8	3.5	ng/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.43	U	90	180	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	57117-31-4	2,3,4,7,8-PECDF	5.43	U	180	360	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	57117-41-6	1,2,3,7,8-PECDF	5.43	U	90	180	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.43	U	90	180	ng/kg	JBQ	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.43	U	90	180	ng/kg	JBQ	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.43	U	90	180	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.43	U	90	180	ng/kg	JB	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.43	U	90	180	ng/kg	JBQ	U	B	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	6552770	LL	1613B	2/22/2012	METHOD	DX158	9.4	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.43	U	90	180	ng/kg	JB	U	B	-118.70893	34.2338012
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	53469-21-9	Aroclor 1242	1.8	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	63496-31-1	Aroclor 5432	3.5	U	180	360	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	100-01-6	4-NITROANILINE	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	100-02-7	4-NITROPHENOL	350	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	100-51-6	BENZYL ALCOHOL	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	180	360	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	106-44-5	4-METHYLPHENOL	180	U	360	710	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	106-46-7	1,4-DICHLOROBENZENE	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	106-47-8	4-CHLOROANILINE	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	108-68-9	3,5-Dimethylphenol	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	108-95-2	PHENOL	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	111-76-2	2-butoxy-Ethanol	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	118-74-1	HEXACHLOROBENZENE	180	U	180	360	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	119-64-2	Tetralin	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	120-82-1	1,2,4-Trichlorobenzene	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	120-83-2	2,4-DICHLOROPHENOL	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	121-14-2	2,4-DINITROTOLUENE	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	450	890	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	122-99-6	2-phenoxy-Ethanol	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	132-64-9	DIBENZOFURAN	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	51-28-5	2,4-DINITROPHENOL	350	U	90	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	350	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	541-73-1	1,3-DICHLOROBENZENE	180	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	606-20-2	2,6-DINITROTOLUENE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	62-53-3	ANILINE	350	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	65-85-0	BENZOIC ACID	710	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	67-72-1	HEXACHLOROETHANE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	78-59-1	ISOPHORONE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	86-74-8	CARBAZOLE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	87-68-3	HEXACHLOROBUTADIENE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	87-86-5	PENTACHLOROPHENOL	350	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	88-74-4	2-NITROANILINE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	88-75-5	2-NITROPHENOL	180	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	91-58-7	2-CHLORONAPHTHALENE	180	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	92-87-5	BENZIDINE	880	U	9.0	18	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	95-48-7	2-METHYLPHENOL	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	95-50-1	1,2-Dichlorobenzene	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	95-57-8	2-CHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	98-95-3	NITROBENZENE	180	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C	2/16/2012	3550B	12B146	5.7	1	99-09-2	3-NITROANILINE	180	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	117-84-0	Di-n-octylphthalate	18	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	120-12-7	ANTHRACENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	129-00-0	PYRENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	131-11-3	Dimethylphthalate	18	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	100	200	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	206-44-0	FLUORANTHENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	208-96-8	ACENAPHTHYLENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	218-01-9	CHRYSENE	1.8	U	50	100	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	50-32-8	BENZO(A)PYRENE	1.8	U	500	1000	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	0.268	0.535	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	0.1	0.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	0.48	0.96	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	83-32-9	ACENAPHTHENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	84-66-2	Diethylphthalate	18	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	84-74-2	Di-n-butylphthalate	18	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	85-01-8	PHENANTHRENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	85-68-7	Butylbenzylphthalate	18	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	86-73-7	FLUORENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	91-20-3	NAPHTHALENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8270C SIM	2/16/2012	3550B	12B146	5.7	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	118-96-7	2,4,6-TRINITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	121-14-2	2,4-DINITROTOLUENE	99	U	4.9	9.7	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	121-82-4	RDX	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	2691-41-0	HMX	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	479-45-8	Tetryl	99	U	1.9	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	606-20-2	2,6-DINITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	88-72-2	2-NITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	98-95-3	NITROBENZENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	99-08-1	3-NITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	99-35-4	1,3,5-Trinitrobenzene	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	99-65-0	1,3-DINITROBENZENE	99	U	1.9	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8330A	2/24/2012	Gen Prep	12B146	0	0.99	99-99-0	4-NITROTOLUENE	99	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8332	2/24/2012	Gen Prep	12B146	0	0.99	55-63-0	Nitroglycerin	990	U	0.97	4.9	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8332	2/24/2012	Gen Prep	12B146	0	0.99	78-11-5	PETN	990	U	4.9	9.7	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	9014	2/17/2012	Gen Prep	12B146	5.7	1	57-12-5	CYANIDE	0.53	U	1.9	4.9	mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	9045D	2/16/2012	Gen Prep	12B146	5.7	1	pH	PH	9.21		0.97	4.9	pH unit	0.1			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05W	EMXT	8015B GRO	2/21/2012	5035	12B146	5.6	0.95	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.0528	0.106	mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	100-41-4	ETHYLBENZENE	4.9	U	0.211	0.422	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	100-42-5	STYRENE	4.9	U	0.0528	0.106	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	10061-01-5	CIS-1,3-DICHLOROPROPENE	4.9	U	0.211	0.422	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	10061-02-6	TRANS-1,3-DICHLOROPROPENE	4.9	U	0.0528	0.106	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	103-65-1	N-PROPYLBENZENE	4.9	U	1.58	3.17	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	104-51-8	N-BUTYLBENZENE	4.9	U	2.64	5.28	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	106-43-4	4-CHLOROTOLUENE	4.9	U	10.6	21.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	106-46-7	1,4-DICHLOROBENZENE	4.9	U	6.33	12.7	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	106-93-4	1,2-Dibromoethane (EDB)	4.9	U	0.211	0.422	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	107-06-2	1,2-Dichloroethane	4.9	U	0.541	1.08	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	108-10-1	4-METHYL-2-PENTANONE (MIBK)	9.7	U	0.541	1.08	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	108-67-8	1,3,5-Trimethylbenzene	4.9	U	0.0541	0.108	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	108-86-1	BROMOBENZENE	4.9	U	270	540	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	108-88-3	TOLUENE	4.9	U	270	540	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	108-90-7	Chlorobenzene	4.9	U	270	540	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	110-75-8	2-CHLOROETHYL VINYL ETHER	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	120-82-1	1,2,4-Trichlorobenzene	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	124-48-1	DIBROMOCHLOROMETHANE	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	127-18-4	TETRACHLOROETHENE	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	135-98-8	SEC-BUTYLBENZENE	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	142-28-9	1,3-DICHLOROPROPANE	4.9	U	0.54	1.1	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	156-59-2	CIS-1,2-DICHLOROETHENE	4.9	U	5.4	11	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	156-60-5	TRANS-1,2-DICHLOROETHENE	4.9	U	8.1	16	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	4.9	U	5.4	11	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	179601-23-1	m,p-Xylene	4.9	U	6.4	13	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	541-73-1	1,3-DICHLOROBENZENE	4.9	U	6.4	13	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	56-23-5	CARBON TETRACHLORIDE	4.9	U	13	25	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	563-58-6	1,1-Dichloropropene	4.9	U	6.4	13	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	591-78-6	2-HEXANONE	9.7	U	6.4	13	ug/kg	U			-118.7089	34.2338052

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	594-20-7	2,2-DICHLOROPROPANE	4.9	U	6.4	13	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	6.4	13	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	67-64-1	ACETONE	9.7	U	13	25	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	67-66-3	CHLOROFORM	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	71-43-2	BENZENE	4.9	U	180	360	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	71-55-6	1,1,1-Trichloroethane	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	74-83-9	BROMOMETHANE	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	74-87-3	CHLOROMETHANE	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	74-95-3	DIBROMOMETHANE	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	74-97-5	BROMOCHLOROMETHANE	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-00-3	Chloroethane	4.9	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	51-28-5	2,4-DINITROPHENOL	4300	U	91	180	ug/kg	U			-118.7089	34.2338052
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	534-52-1	4,6-DINITRO-2-METHYLPHENOL	4300	U	180	180	ug/kg	U			-118.7089	34.2338052
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	541-73-1	1,3-DICHLOROBENZENE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	59-50-7	4-CHLORO-3-METHYLPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	606-20-2	2,6-DINITROTOLUENE	2200	U	180	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	62-53-3	ANILINE	4300	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	65-85-0	BENZOIC ACID	8600	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	67-72-1	HEXACHLOROETHANE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	2200	U	180	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	77-47-4	HEXACHLOROCYCLOPENTADIENE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	78-59-1	ISOPHORONE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	86-30-6	N-NITROSODIPHENYLAMINE	2200	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	86-74-8	CARBAZOLE	2200	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	87-68-3	HEXACHLOROBUTADIENE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	87-86-5	PENTACHLOROPHENOL	4300	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	88-06-2	2,4,6-TRICHLOROPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	88-74-4	2-NITROANILINE	2200	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	88-75-5	2-NITROPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	91-58-7	2-CHLORONAPHTHALENE	2200	U	360	720	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	91-94-1	3,3'-DICHLOROBENZIDINE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	92-87-5	BENZIDINE	11000	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	95-48-7	2-METHYLPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	95-50-1	1,2-Dichlorobenzene	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	95-57-8	2-CHLOROPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	95-95-4	2,4,5-TRICHLOROPHENOL	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	98-95-3	NITROBENZENE	2200	U	91	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	99-09-2	3-NITROANILINE	2200	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	260		5.21	10.4	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	117-84-0	Di-n-octylphthalate	220	U	0.521	1.04	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	120-12-7	ANTHRACENE	22	U	0.104	0.208	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	129-00-0	PYRENE	22	U	0.208	0.417	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	131-11-3	Dimethylphthalate	220	U	0.208	0.417	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	205-99-2	BENZO(B)FLUORANTHENE	22	U	0.0296	1.05	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	206-44-0	FLUORANTHENE	22	U	0.0214	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	207-08-9	BENZO(K)FLUORANTHENE	22	U	0.0255	10.5	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	208-96-8	ACENAPHTHYLENE	22	U	0.0223	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	218-01-9	CHRYSENE	11	J	0.0274	10.5	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	50-32-8	BENZO(A)PYRENE	22	U	0.0267	1.05	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	53-70-3	DIBENZO(A,H)ANTHRACENE	22	U	0.0149	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	56-55-3	BENZO(A)ANTHRACENE	15	J	0.0130	5.24	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	62-75-9	N-NITROSODIMETHYLAMINE	22	U	0.0136	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	83-32-9	ACENAPHTHENE	22	U	0.0119	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	84-66-2	Diethylphthalate	220	U	0.0215	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	84-74-2	Di-n-butylphthalate	220	U	0.0123	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	85-01-8	PHENANTHRENE	110		0.00897	5.24	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	85-68-7	Butylbenzylphthalate	220	U	0.0137	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	86-73-7	FLUORENE	22	U	0.0153	5.24	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	90-12-0	1-METHYLNAPHTHALENE	220		0.0207	1.05	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	91-20-3	NAPHTHALENE	4400		0.0195	5.25	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C SIM	2/23/2012	3550B	12B174SV	22.6	10	91-57-6	2-METHYLNAPHTHALENE	350		0.0171	10.5	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8270C SIM	2/22/2012	3550B	12B174SV	22.6	1	191-24-2	BENZO(G,H,I)PERYLENE	6.2	J	0.00928	5.25	ug/kg		J	S	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8270C SIM	2/22/2012	3550B	12B174SV	22.6	1	193-39-5	INDENO(1,2,3-CD)PYRENE	2.1	J	0.00876	5.25	ug/kg	J	J	S, Z	-118.70844	34.2352597
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11100-14-4	Aroclor 1268	1.8	U	0.00913	5.47	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11104-28-2	Aroclor 1221	1.8	U	0.0129	5.47	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11126-42-4	Aroclor 5460	3.5	U	0.0163	5.47	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	11141-16-5	Aroclor 1232	1.8	U	0.0906	1.24	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	12642-23-8	Aroclor 5442	3.5	U	0.0676	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	12672-29-6	Aroclor 1248	200		0.0551	12.4	ug/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	12674-11-2	Aroclor 1016	1.8	U	0.0990	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	37324-23-5	Aroclor 1262	1.8	U	0.0680	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	53469-21-9	Aroclor 1242	1.8	U	0.0799	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02W	EMXT	8082	2/20/2012	3550B	12B137	6.6	1	63496-31-1	Aroclor 5432	3.5	U	0.0364	1.24	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	100-01-6	4-NITROANILINE	180	U	0.0207	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	100-02-7	4-NITROPHENOL	360	U	0.0213	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	100-51-6	BENZYL ALCOHOL	180	U	0.0283	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	0.0714	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	0.0269	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	106-44-5	4-METHYLPHENOL	180	U	0.0208	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	106-46-7	1,4-DICHLOROBENZENE	180	U	0.0289	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	106-47-8	4-CHLOROANILINE	180	U	0.0309	6.22	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	108-68-9	3,5-Dimethylphenol	180	U	0.0338	1.07	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	108-95-2	PHENOL	180	U	0.0255	5.37	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	0.0270	10.7	ug/kg	U			-118.7136	34.2323317

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	111-76-2	2-butoxy-Ethanol	180	U	0.0266	5.37	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	0.0248	10.7	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	118-74-1	HEXACHLOROBENZENE	180	U	0.0247	5.37	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	119-64-2	Tetralin	180	U	0.0298	1.07	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	120-82-1	1,2,4-Trichlorobenzene	180	U	0.0227	5.37	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	120-83-2	2,4-DICHLOROPHENOL	180	U	0.0144	5.37	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	121-14-2	2,4-DINITROTOLUENE	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	122-99-6	2-phenoxy-Ethanol	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	132-64-9	DIBENZOFURAN	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	51-28-5	2,4-DINITROPHENOL	360	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	541-73-1	1,3-DICHLOROBENZENE	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	606-20-2	2,6-DINITROTOLUENE	180	U	4.9	9.7	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	62-53-3	ANILINE	360	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	65-85-0	BENZOIC ACID	710	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	67-72-1	HEXACHLOROETHANE	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	78-59-1	ISOPHORONE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	86-74-8	CARBAZOLE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	87-68-3	HEXACHLOROBUTADIENE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	87-86-5	PENTACHLOROPHENOL	360	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	1.9	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	88-74-4	2-NITROANILINE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	88-75-5	2-NITROPHENOL	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	91-58-7	2-CHLORONAPHTHALENE	180	U	0.97	4.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	4.9	9.9	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	92-87-5	BENZIDINE	890	U	0.800	1.60	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	95-48-7	2-METHYLPHENOL	180	U	0.800	1.60	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	95-50-1	1,2-Dichlorobenzene	180	U	0.534	1.07	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	95-57-8	2-CHLOROPHENOL	180	U	10.7	21.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	12.5	25.0	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	98-95-3	NITROBENZENE	180	U	10.4	20.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C	2/16/2012	3550B	12B137	6.6	1	99-09-2	3-NITROANILINE	180	U	0.104	0.208	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	12	J	1.04	2.08	ug/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	117-84-0	Di-n-octylphthalate	18	U	5.21	10.4	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	120-12-7	ANTHRACENE	1.8	U	0.260	0.521	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	129-00-0	PYRENE	0.99	J	0.0521	0.104	ug/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	131-11-3	Dimethylphthalate	18	U	0.208	0.417	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	191-24-2	BENZO(G,H,I)PERYLENE	1.5	J	0.0521	0.104	ug/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	52.1	104	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	U	0.260	0.521	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	206-44-0	FLUORANTHENE	1.8	U	0.0521	0.104	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U	5.21	10.4	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.521	1.04	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	218-01-9	CHRYSENE	1.8	U	0.104	0.208	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	50-32-8	BENZO(A)PYRENE	1.1	J	0.0521	0.104	ug/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	2.60	5.21	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	56-55-3	BENZO(A)ANTHRACENE	1.7	J	0.0521	0.104	ug/kg	J	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	0.208	0.417	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	83-32-9	ACENAPHTHENE	1.8	U	0.0521	0.104	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	84-66-2	Diethylphthalate	18	U	0.208	0.417	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	84-74-2	Di-n-butylphthalate	18	U	0.0521	0.104	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	85-01-8	PHENANTHRENE	1.8	U	1.56	3.12	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	85-68-7	Butylbenzylphthalate	18	U	2.60	5.21	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	86-73-7	FLUORENE	1.8	U	10.4	20.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	6.25	12.5	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	91-20-3	NAPHTHALENE	1.8	U	0.208	0.417	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8270C SIM	2/16/2012	3550B	12B137	6.6	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.534	1.07	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	118-96-7	2,4,6-TRINITROTOLUENE	100	U	0.534	1.07	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	121-14-2	2,4-DINITROTOLUENE	100	U	0.0526	0.105	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	121-82-4	RDX	100	U	270	530	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	100	U	270	530	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	2691-41-0	HMX	100	U	270	530	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	100	U	2.7	5.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	479-45-8	Tetryl	100	U	2.7	5.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	2.7	5.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	606-20-2	2,6-DINITROTOLUENE	100	U	2.7	5.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	2.7	5.3	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	88-72-2	2-NITROTOLUENE	100	U	5.3	11	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	98-95-3	NITROBENZENE	100	U	8.0	16	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	99-08-1	3-NITROTOLUENE	100	U	5.3	11	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	99-35-4	1,3,5-Trinitrobenzene	100	U	0.91	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	99-65-0	1,3-DINITROBENZENE	100	U	0.91	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8330A	2/23/2012	Gen Prep	12B137	0	1	99-99-0	4-NITROTOLUENE	100	U	0.91	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8332	2/24/2012	Gen Prep	12B137	0	1	55-63-0	Nitroglycerin	1000	U	1.8	3.5	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	8332	2/24/2012	Gen Prep	12B137	0	1	78-11-5	PETN	1000	U	0.91	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	9014	2/17/2012	Gen Prep	12B137	6.6	1	57-12-5	CYANIDE	0.535	U	1.8	3.5	mg/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	B137-02	EMXT	9045D	2/15/2012	Gen Prep	12B137	6.6	1	pH	PH	8.78		0.91	1.8	pH unit	0.1			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8015B GRO	2/16/2012	5035	12B137	5.3	0.91	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.96	U	0.91	1.8	mg/kg	U			-118.7136	34.2323317

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	100-41-4	ETHYLBENZENE	4.9	U	0.91	1.8	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	100-42-5	STYRENE	4.9	U	1.8	3.5	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	10061-01-5	CIS-1,3-DICHLOROPROPENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	10061-02-6	TRANS-1,3-DICHLOROPROPENE	4.9	U	180	360	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	103-65-1	N-PROPYLBENZENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	104-51-8	N-BUTYLBENZENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	106-43-4	4-CHLOROTOLUENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	106-46-7	1,4-DICHLOROBENZENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	106-93-4	1,2-Dibromoethane (EDB)	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	107-06-2	1,2-Dichloroethane	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	108-10-1	4-METHYL-2-PENTANONE (MIBK)	9.7	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	108-67-8	1,3,5-Trimethylbenzene	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	108-86-1	BROMOBENZENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	108-88-3	TOLUENE	4.9	U	180	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	108-90-7	Chlorobenzene	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	110-75-8	2-CHLOROETHYL VINYL ETHER	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	120-82-1	1,2,4-Trichlorobenzene	4.9	U	180	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	124-48-1	DIBROMOCHLOROMETHANE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	127-18-4	TETRACHLOROETHENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	135-98-8	SEC-BUTYLBENZENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	142-28-9	1,3-DICHLOROPROPANE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	156-59-2	CIS-1,2-DICHLOROETHENE	4.9	U	180	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	156-60-5	TRANS-1,2-DICHLOROETHENE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	179601-23-1	m,p-Xylene	4.9	U	180	360	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	541-73-1	1,3-DICHLOROBENZENE	4.9	U	180	360	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	56-23-5	CARBON TETRACHLORIDE	4.9	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	563-58-6	1,1-Dichloropropene	4.9	U	360	710	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	591-78-6	2-HEXANONE	9.7	U	90	180	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	594-20-7	2,2-DICHLOROPROPANE	4.9	U	90	180	ug/kg	U			-118.71164	34.2336075
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	90	180	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-42-8	BORON	5.28	UJ	90	180	mg/kg	U	UJ	E	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-43-9	CADMIUM	0.0935	J	90	180	mg/kg	J	J	Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-47-3	CHROMIUM	11.3		90	180	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-48-4	COBALT	3.27		90	180	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-50-8	COPPER	4.73		180	360	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-62-2	VANADIUM	22.3	J	90	180	mg/kg		J	Q	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-66-6	ZINC	52.2		90	180	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-67-7	Zirconium	5.28	U	90	180	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7440-70-2	CALCIUM	2060	J	90	180	mg/kg		J	Q	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7723-14-0	PHOSPHORUS	363		90	180	mg/kg				-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	6020	2/24/2012	Gen Prep	12B189	7.5	0.976	7782-49-2	SELENIUM	0.422	U	450	890	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02R	EMXT	7199	2/24/2012	Gen Prep	12B189	7.5	1	18540-29-9	HEXAVALENT CHROMIUM	1.08	U	90	180	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	7199	2/24/2012	Gen Prep	12B189	7.5	1	18540-29-9	HEXAVALENT CHROMIUM	1.08	U	90	180	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	7471A	2/28/2012	7471A	12B189	7.5	1	7439-97-6	Mercury	0.108	U	90	180	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.5	1	64-17-5	ETHANOL	540	U	90	180	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.5	1	67-56-1	METHANOL	540	U	90	180	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015B	2/22/2012	Gen Prep	12B189	7.5	1	67-63-0	Isopropanol	540	U	90	180	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC12C14	EFH (C12-C14)	1.1	U	0.91	1.8	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC15C20	EFH (C15-C20)	1.1	U	0.91	1.8	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC21C30	EFH (C21-C30)	1.1	UJ	0.97	4.9	mg/kg	U	UJ	FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC30C40	EFH (C30-C40)	1.1	U	0.97	4.9	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC8C11	EFH (C8-C11)	0.65	J	0.97	4.9	mg/kg	J	J	Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02W	EMXT	8015B EFH	2/24/2012	3550B	12B189	7.5	1	PHCC8C40	TOTAL EFH(C8-C40)	0.65	J	1.9	4.9	mg/kg	J	J	FD, Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.5	1	107-21-1	ETHYLENE GLYCOL	11	U	1.9	4.9	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.5	1	111-46-6	DIETHYLENE GLYCOL	16	U	0.97	4.9	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8015M	2/24/2012	Gen Prep	12B189	7.5	1	57-55-6	Propylene glycol	11	U	0.97	4.9	mg/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11096-82-5	Aroclor 1260	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11097-69-1	Aroclor 1254	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11100-14-4	Aroclor 1268	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11104-28-2	Aroclor 1221	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11126-42-4	Aroclor 5460	25	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	11141-16-5	Aroclor 1232	13	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	12642-23-8	Aroclor 5442	25	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	12672-29-6	Aroclor 1248	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	12674-11-2	Aroclor 1016	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	37324-23-5	Aroclor 1262	13	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	53469-21-9	Aroclor 1242	13	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8082	2/25/2012	3550B	12B189	0	7.5	63496-31-1	Aroclor 5432	25	U	4.9	9.7	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	100-01-6	4-NITROANILINE	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	100-02-7	4-NITROPHENOL	360	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	100-51-6	BENZYL ALCOHOL	180	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	106-44-5	4-METHYLPHENOL	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	106-46-7	1,4-DICHLOROBENZENE	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	106-47-8	4-CHLOROANILINE	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	108-68-9	3,5-Dimethylphenol	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	108-95-2	PHENOL	180	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	1.9	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	111-76-2	2-butoxy-Ethanol	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	118-74-1	HEXACHLOROBENZENE	180	U	0.97	4.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	119-64-2	Tetralin	180	U	0.750	1.50	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	120-82-1	1,2,4-Trichlorobenzene	180	U	0.838	1.68	ug/kg	U			-118.71164	34.2336075

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	120-83-2	2,4-DICHLOROPHENOL	180	U	0.559	1.12	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	121-14-2	2,4-DINITROTOLUENE	180	U	11.2	22.3	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	13.3	26.5	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	122-99-6	2-phenoxy-Ethanol	180	U	11.1	22.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	132-64-9	DIBENZOFURAN	180	U	0.111	0.221	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	5.53	11.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	51-28-5	2,4-DINITROPHENOL	360	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	541-73-1	1,3-DICHLOROBENZENE	180	U	33.2	66.4	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	606-20-2	2,6-DINITROTOLUENE	180	U	55.3	111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	62-53-3	ANILINE	360	U	0.277	0.553	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	65-85-0	BENZOIC ACID	720	U	5.53	11.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	67-72-1	HEXACHLOROETHANE	180	U	0.553	1.11	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	0.111	0.221	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	78-59-1	ISOPHORONE	180	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	86-74-8	CARBAZOLE	180	U	2.77	5.53	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	87-68-3	HEXACHLOROBUTADIENE	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	87-86-5	PENTACHLOROPHENOL	360	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	88-74-4	2-NITROANILINE	180	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	88-75-5	2-NITROPHENOL	180	U	0.0553	0.111	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	91-58-7	2-CHLORONAPHTHALENE	180	U	1.66	3.32	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	2.77	5.53	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	92-87-5	BENZIDINE	900	U	11.1	22.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	95-48-7	2-METHYLPHENOL	180	U	6.64	13.3	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	95-50-1	1,2-Dichlorobenzene	180	U	0.221	0.442	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	95-57-8	2-CHLOROPHENOL	180	U	0.559	1.12	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	0.559	1.12	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	98-95-3	NITROBENZENE	180	U	0.0559	0.112	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C	2/27/2012	3550B	12B189	7.5	1	99-09-2	3-NITROANILINE	180	U	280	560	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	11	J	280	560	ug/kg	J	J	FD, Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	117-84-0	Di-n-octylphthalate	18	U	280	560	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	120-12-7	ANTHRACENE	1.8	U	0.56	1.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	129-00-0	PYRENE	1.8	U	0.56	1.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	131-11-3	Dimethylphthalate	18	U	0.56	1.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	0.56	1.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	0.56	1.1	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	205-99-2	BENZO(B)FLUORANTHENE	0.94	J	5.6	11	ug/kg	J	J	FD, Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	206-44-0	FLUORANTHENE	1.8	U	8.4	17	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	207-08-9	BENZO(K)FLUORANTHENE	1	J	5.6	11	ug/kg	J	J	FD, Z	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	218-01-9	CHRYSENE	1.8	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	50-32-8	BENZO(A)PYRENE	1.8	U	1.9	3.7	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	1.9	3.7	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	83-32-9	ACENAPHTHENE	1.8	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	84-66-2	Diethylphthalate	18	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	84-74-2	Di-n-butylphthalate	18	U	0.95	1.9	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	85-01-8	PHENANTHRENE	1.8	U	1.9	3.7	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	85-68-7	Butylbenzylphthalate	18	U	94	190	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	86-73-7	FLUORENE	1.8	U	190	370	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	94	190	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	91-20-3	NAPHTHALENE	1.8	U	94	190	ug/kg	U			-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	8270C SIM	2/27/2012	3550B	12B189	7.5	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	94	190	ug/kg	U			-118.7116	34.2336237
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	B189-02	EMXT	9045D	2/22/2012	Gen Prep	12B189	7.5	1	pH	PH	8.11		94	190	pH unit	0.1			-118.7116	34.2336237
SL-186-SA7-SB-27.5	2/21/2012	N	27.5	27.5	ft bgs	SO	DeepBoring	B189-01	EMXT	8015B GRO	2/23/2012	5035	12B189	7.1	0.91	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.98	U	94	190	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	300.0	2/24/2012	Gen Prep	12B189	6.3	1	14797-55-8	Nitrate-NO3	7.98		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	300.0	2/24/2012	Gen Prep	12B189	6.3	1	14797-65-0	Nitrite-NO2	1.6	U	94	190	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	300.0	2/24/2012	Gen Prep	12B189	6.3	1	16984-48-8	FLUORIDE	1.49		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	314.0	2/23/2012	Gen Prep	12B189	6.3	1	14797-73-0	PERCHLORATE	21.3	U	190	190	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7429-90-5	ALUMINUM	9790	J	94	190	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-89-6	IRON	17700		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-92-1	LEAD	4.55	J	190	190	mg/kg		J	Q, E	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-93-2	LITHIUM	22.6		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-95-4	MAGNESIUM	4000		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-96-5	MANGANESE	232		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7439-98-7	MOLYBDENUM	0.324		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-02-0	NICKEL	7.6		190	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-09-7	POTASSIUM	2750		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-22-4	SILVER	0.104	U	94	190	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-23-5	SODIUM	126		190	370	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-24-6	STRONTIUM	14.3		190	370	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-28-0	THALLIUM	0.231		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-31-5	TIN	10.4	U	94	190	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-32-6	TITANIUM	881		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-36-0	ANTIMONY	0.127	J	190	370	mg/kg	J	J	Q, Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-38-2	Arsenic	3.56		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-39-3	BARIUM	70.7	J	370	750	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-41-7	BERYLLIUM	0.41		94	190	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-42-8	BORON	5.21	UJ	94	190	mg/kg	U	UJ	E	-118.7089	34.2338052

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-43-9	CADMIUM	0.129		94	190	mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	1746-01-6	2,3,7,8-TCDD	1.05	U	190	370	ng/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.24	U	94	190	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	3268-87-9	OCDD	10.5	U	94	190	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.24	U	94	190	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	39001-02-0	OCDF	10.5	U	94	190	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.24	U	470	930	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	40321-76-4	1,2,3,7,8-PECDD	5.24	U	94	190	ng/kg	JBQ	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	51207-31-9	2,3,7,8-TCDF	0.0414	J	0.208	0.417	ng/kg	JQ	J	Z	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.24	U	0.0521	0.104	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	57117-31-4	2,3,4,7,8-PECDF	5.24	U	0.208	0.417	ng/kg	JBQ	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	57117-41-6	1,2,3,7,8-PECDF	5.24	U	0.0521	0.104	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.24	U	1.56	3.12	ng/kg	JB	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.24	U	2.60	5.21	ng/kg	JBQ	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.24	U	10.4	20.8	ng/kg	JB	U	B	-118.70844	34.2352039
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.24	U	6.25	12.5	ng/kg	JB	U	B	-118.70844	34.2352039
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.24	U	0.208	0.417	ng/kg	JB	U	B	-118.70844	34.2352039
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	6552769	LL	1613B	2/22/2012	METHOD	DX158	5.2	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.24	U	0.534	1.07	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	1746-01-6	2,3,7,8-TCDD	1.05	U	5.4	11	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.25	U	5.4	11	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	3268-87-9	OCDD	8.29	J	11	21	ng/kg	JB	J	Z	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.25	U	5.4	11	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	39001-02-0	OCDF	10.5	U	11	21	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.25	U	5.4	11	ng/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	40321-76-4	1,2,3,7,8-PECDD	5.25	U	5.4	11	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	51207-31-9	2,3,7,8-TCDF	1.05	U	5.4	11	ng/kg	JBQ	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.25	U	11	21	ng/kg	JBQ	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	57117-31-4	2,3,4,7,8-PECDF	5.25	U	90	180	ng/kg	JBQ	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	57117-41-6	1,2,3,7,8-PECDF	5.25	U	180	360	ng/kg	JBQ	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.25	U	90	180	ng/kg	JBQ	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.25	U	90	180	ng/kg	JB	U	B	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.25	U	90	180	ng/kg	JBQ	U	B	-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.25	U	90	180	ng/kg	JBQ	U	B	-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.25	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	6556491	LL	1613B	2/28/2012	METHOD	DX158	5.2	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.25	U	90	180	ng/kg	JBQ	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	1746-01-6	2,3,7,8-TCDD	1.09	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.47	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	3268-87-9	OCDD	10.9	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.47	U	180	360	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	39001-02-0	OCDF	10.9	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.47	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	40321-76-4	1,2,3,7,8-PECDD	5.47	U	90	180	ng/kg	JBQ	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	51207-31-9	2,3,7,8-TCDF	1.09	U	90	180	ng/kg	U			-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.47	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	57117-31-4	2,3,4,7,8-PECDF	5.47	U	90	180	ng/kg	JBQ	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	57117-41-6	1,2,3,7,8-PECDF	5.47	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.47	U	90	180	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.47	U	180	360	ng/kg	JB	U	B	-118.7083	34.2353203
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.47	U	90	180	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.47	U	90	180	ng/kg	JB	U	B	-118.70844	34.2352597
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.47	U	90	180	ng/kg	JB	U	B	-118.70844	34.2352597
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	6555638	LL	1613B	2/28/2012	METHOD	DX158	10.2	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.47	U	90	180	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	1746-01-6	2,3,7,8-TCDD	8.99		0.91	1.8	ng/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	19408-74-3	1,2,3,7,8,9-HXCDD	34.5		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	3268-87-9	OCDD	1710		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	411		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	39001-02-0	OCDF	21.5		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	39227-28-6	1,2,3,4,7,8-HxCDD	6.11	J	0.91	1.8	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	40321-76-4	1,2,3,7,8-PECDD	15.1		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	51207-31-9	2,3,7,8-TCDF	0.306	J	0.91	1.8	ng/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	0.852	J	9.0	18	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	57117-31-4	2,3,4,7,8-PECDF	0.492	J	9.0	18	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	57117-41-6	1,2,3,7,8-PECDF	6.22	U	0.91	1.8	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	57117-44-9	1,2,3,6,7,8-HXCDF	0.711	J	9.0	18	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	57653-85-7	1,2,3,6,7,8-HXCDD	25.1		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	60851-34-5	2,3,4,6,7,8-HXCDF	1.11	J	0.91	1.8	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	13.8		0.91	1.8	ng/kg	B			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	70648-26-9	1,2,3,4,7,8-HXCDF	0.642	J	0.91	1.8	ng/kg	JB	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	6552771	LL	1613B	2/22/2012	METHOD	DX158	19.8	1	72918-21-9	1,2,3,7,8,9-HXCDF	6.22	U	0.1	0.1	ng/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	1746-01-6	2,3,7,8-TCDD	0.039	J	0.235	0.470	ng/kg	JQ	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.37	U	0.0470	0.0940	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	3268-87-9	OCDD	10.7	U	4.70	9.40	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.37	U	0.470	0.940	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	39001-02-0	OCDF	10.7	U	0.0940	0.188	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.37	U	0.188	0.376	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	40321-76-4	1,2,3,7,8-PECDD	5.37	U	0.0470	0.0940	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	51207-31-9	2,3,7,8-TCDF	0.0323	J	2.35	4.70	ng/kg	JQ	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.37	U	0.0470	0.0940	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	57117-31-4	2,3,4,7,8-PECDF	5.37	U	0.188	0.376	ng/kg	JBQ	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-01-4	VINYL CHLORIDE	4.9	U	0.0470	0.0940	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-09-2	METHYLENE CHLORIDE	4.9	U	0.0149	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-25-2	BROMOFORM	4.9	U	0.0130	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-27-4	BROMODICHLOROMETHANE	4.9	U	0.0260	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-34-3	1,1-Dichloroethane	4.9	U	0.0133	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-35-4	1,1-Dichloroethene	4.9	U	0.0127	5.37	ug/kg	U			-118.7089	34.2338052

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-69-4	TRICHLOROFLUOROMETHANE	4.9	U	0.0168	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-71-8	DICHLORODIFLUOROMETHANE	4.9	U	0.0170	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	75-88-7	2-Chloro-1,1,1-trifluoroethane	4.9	U	0.0269	1.07	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9	U	0.0253	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	78-87-5	1,2-Dichloropropane	4.9	U	0.0187	10.7	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	78-93-3	2-BUTANONE (MEK)	9.7	U	0.0240	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	79-00-5	1,1,2-Trichloroethane	4.9	U	0.0229	10.7	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	79-01-6	TRICHLOROETHENE	4.9	U	0.0243	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	0.0259	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	79-38-9	Chlorotrifluoroethylene	4.9	U	0.0281	1.07	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	87-61-6	1,2,3-Trichlorobenzene	4.9	U	0.0221	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	87-68-3	HEXACHLOROBUTADIENE	4.9	U	0.0154	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	95-47-6	O-XYLENE	4.9	U	0.0149	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	95-49-8	2-CHLOROTOLUENE	4.9	U	0.0190	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	95-50-1	1,2-Dichlorobenzene	4.9	U	0.0269	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	95-63-6	1,2,4-Trimethylbenzene	4.9	U	0.0207	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U	0.0143	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	96-18-4	1,2,3-Trichloropropane	4.9	U	0.0215	5.37	ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	98-06-6	TERT-BUTYLBENZENE	4.9	U	0.0226	5.37	ug/kg	U			-118.71163	34.233596
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	98-82-8	ISOPROPYLBENZENE	4.9	U	0.824	1.65	ug/kg	U			-118.71163	34.233596
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B	2/21/2012	5035	12B146	5.6	0.92	99-87-6	P-ISOPROPYLTOLUENE	4.9	U	0.824	1.65	ug/kg	U			-118.71163	34.233596
SL-261-SA5A-SB-9.0	2/15/2012	N	9	9	ft bgs	SO	DeepBoring	B146-05	EMXT	8260B SIM	2/17/2012	5035	12B146	5.6	0.93	123-91-1	1,4-DIOXANE	9.9	U	0.549	1.10	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	300.0	2/24/2012	Gen Prep	12B201	6.3	1	14797-55-8	Nitrate-NO3	2.65		13.2	26.4	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	300.0	2/24/2012	Gen Prep	12B201	6.3	1	14797-65-0	Nitrite-NO2	1.6	U	11.0	22.0	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	300.0	2/24/2012	Gen Prep	12B201	6.3	1	16984-48-8	FLUORIDE	3.48		0.110	0.220	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	314.0	2/23/2012	Gen Prep	12B201	6.3	1	14797-73-0	PERCHLORATE	21.3	U	1.10	2.20	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7429-90-5	ALUMINUM	8530	J	5.49	11.0	mg/kg		J	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-89-6	IRON	20000		0.275	0.549	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-92-1	LEAD	52.5	J	0.0549	0.110	mg/kg		J	Q, E	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-93-2	LITHIUM	18.3		0.220	0.440	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-95-4	MAGNESIUM	3300		33.0	65.9	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-96-5	MANGANESE	302		0.98	4.9	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7439-98-7	MOLYBDENUM	2.55		0.0549	0.110	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-02-0	NICKEL	8.49		54.9	110	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-09-7	POTASSIUM	2680		0.275	0.549	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-22-4	SILVER	0.104	U	0.0549	0.110	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-23-5	SODIUM	374		5.49	11.0	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-24-6	STRONTIUM	34.7		0.549	1.10	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-28-0	THALLIUM	0.23		0.110	0.220	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-31-5	TIN	10.4	U	0.220	0.440	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-32-6	TITANIUM	831		0.220	0.440	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-36-0	ANTIMONY	0.195	J	0.0549	0.110	mg/kg	J	J	Q, Z	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-38-2	Arsenic	3.17		2.75	5.49	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-39-3	BARIUM	76.7	J	0.0549	0.110	mg/kg		J	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-41-7	BERYLLIUM	0.358		0.220	0.440	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-42-8	BORON	30	J	0.0549	0.110	mg/kg		J	Q, E	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-43-9	CADMIUM	0.165		0.220	0.440	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-47-3	CHROMIUM	21.4		0.0549	0.110	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-48-4	COBALT	4.34		1.65	3.30	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-50-8	COPPER	7		2.75	5.49	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-62-2	VANADIUM	28.7	J	11.0	22.0	mg/kg		J	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-66-6	ZINC	56		6.59	13.2	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-67-7	Zirconium	5.21	U	0.220	0.440	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7440-70-2	CALCIUM	9560	J	0.549	1.10	mg/kg		J	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7723-14-0	PHOSPHORUS	401		0.549	1.10	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03W	EMXT	6020	2/29/2012	Gen Prep	12B201	6.3	0.976	7782-49-2	SELENIUM	0.417	U	0.0546	0.109	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03R	EMXT	7199	2/24/2012	Gen Prep	12B201	6.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	UJ	270	550	mg/kg	U	UJ	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	7199	2/24/2012	Gen Prep	12B201	6.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	UJ	270	550	mg/kg	U	UJ	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	7471A	2/28/2012	7471A	12B201	6.3	0.985	7439-97-6	Mercury	0.105	U	270	550	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015B	2/23/2012	Gen Prep	12B201	6.3	1	64-17-5	ETHANOL	530	U	0.55	1.1	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015B	2/23/2012	Gen Prep	12B201	6.3	1	67-56-1	METHANOL	530	U	0.55	1.1	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015B	2/23/2012	Gen Prep	12B201	6.3	1	67-63-0	Isopropanol	530	U	0.55	1.1	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC12C14	EFH (C12-C14)	5.3	U	0.55	1.1	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC15C20	EFH (C15-C20)	5.3	U	5.5	11	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC21C30	EFH (C21-C30)	83		8.2	16	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC30C40	EFH (C30-C40)	110		5.5	11	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC8C11	EFH (C8-C11)	3.2	J	0.93	1.9	mg/kg	J	J	Z	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03T	EMXT	8015B EFH	2/23/2012	3550B	12B201	6.3	5	PHCC8C40	TOTAL EFH(C8-C40)	200		0.93	1.9	mg/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015M	2/24/2012	Gen Prep	12B201	6.3	1	107-21-1	ETHYLENE GLYCOL	11	U	0.93	1.9	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015M	2/24/2012	Gen Prep	12B201	6.3	1	111-46-6	DIETHYLENE GLYCOL	16	U	0.93	1.9	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8015M	2/24/2012	Gen Prep	12B201	6.3	1	57-55-6	Propylene glycol	11	U	1.9	3.6	mg/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11096-82-5	Aroclor 1260	1.8	U	0.93	1.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11097-69-1	Aroclor 1254	1.8	U	1.9	3.6	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11100-14-4	Aroclor 1268	1.8	U	0.93	1.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11104-28-2	Aroclor 1221	1.8	U	0.93	1.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11126-42-4	Aroclor 5460	3.5	U	0.93	1.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	11141-16-5	Aroclor 1232	1.8	U	0.93	1.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	12642-23-8	Aroclor 5442	3.5	U	1.9	3.6	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	12672-29-6	Aroclor 1248	1.8	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	12674-11-2	Aroclor 1016	1.8	U	180	370	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	37324-23-5	Aroclor 1262	1.8	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	53469-21-9	Aroclor 1242	1.8	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8082	2/25/2012	3550B	12B201	6.3	1	63496-31-1	Aroclor 5432	3.5	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	100-01-6	4-NITROANILINE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	100-02-7	4-NITROPHENOL	360	U	92	180	ug/kg	U			-118.71163	34.233596

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	100-51-6	BENZYL ALCOHOL	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	180	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	106-44-5	4-METHYLPHENOL	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	106-46-7	1,4-DICHLOROBENZENE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	106-47-8	4-CHLOROANILINE	180	U	180	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	108-68-9	3,5-Dimethylphenol	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	108-95-2	PHENOL	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	111-76-2	2-butoxy-Ethanol	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	180	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	118-74-1	HEXACHLOROBENZENE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	119-64-2	Tetralin	180	U	180	370	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	120-82-1	1,2,4-Trichlorobenzene	180	U	180	370	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	120-83-2	2,4-DICHLOROPHENOL	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	121-14-2	2,4-DINITROTOLUENE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	122-99-6	2-phenoxy-Ethanol	180	U	180	370	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	132-64-9	DIBENZOFURAN	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	51-28-5	2,4-DINITROPHENOL	360	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	541-73-1	1,3-DICHLOROBENZENE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	606-20-2	2,6-DINITROTOLUENE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	62-53-3	ANILINE	360	U	180	370	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	92	180	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	65-85-0	BENZOIC ACID	710	R	9.0	18	ug/kg	U	R	Q	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	67-72-1	HEXACHLOROETHANE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	78-59-1	ISOPHORONE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	86-74-8	CARBAZOLE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	87-68-3	HEXACHLOROBUTADIENE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	87-86-5	PENTACHLOROPHENOL	360	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	88-74-4	2-NITROANILINE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	88-75-5	2-NITROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	91-58-7	2-CHLORONAPHTHALENE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	9.0	18	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	92-87-5	BENZIDINE	890	U	9.0	18	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	95-48-7	2-METHYLPHENOL	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	95-50-1	1,2-Dichlorobenzene	180	U	9.0	18	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	95-57-8	2-CHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	98-95-3	NITROBENZENE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C	2/27/2012	3550B	12B201	6.3	1	99-09-2	3-NITROANILINE	180	U	0.91	1.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	17	J	0.1	0.1	ug/kg	J	J	Z	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	117-84-0	Di-n-octylphthalate	18	U	0.51	1.0	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	120-12-7	ANTHRACENE	1.8	U	59	120	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	129-00-0	PYRENE	1.9		1.2	6.2	ug/kg				-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	67-66-3	CHLOROFORM	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	71-43-2	BENZENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	71-55-6	1,1,1-Trichloroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	74-83-9	BROMOMETHANE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	74-87-3	CHLOROMETHANE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	74-95-3	DIBROMOMETHANE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	74-97-5	BROMOCHLOROMETHANE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-00-3	Chloroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-01-4	VINYL CHLORIDE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-09-2	METHYLENE CHLORIDE	4.9	U	6.2	12	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-25-2	BROMOFORM	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-27-4	BROMODICHLOROMETHANE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-34-3	1,1-Dichloroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-35-4	1,1-Dichloroethene	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-69-4	TRICHLOROFLUOROMETHANE	4.9	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-71-8	DICHLORODIFLUOROMETHANE	4.9	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	75-88-7	2-Chloro-1,1,1-trifluoroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	78-87-5	1,2-Dichloropropane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	78-93-3	2-BUTANONE (MEK)	9.7	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	79-00-5	1,1,2-Trichloroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	79-01-6	TRICHLOROETHENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	79-38-9	Chlorotrifluoroethylene	4.9	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	87-61-6	1,2,3-Trichlorobenzene	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	87-68-3	HEXACHLOROBUTADIENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	95-47-6	O-XYLENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	95-49-8	2-CHLOROTOLUENE	4.9	U	6.2	12	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	95-50-1	1,2-Dichlorobenzene	4.9	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	95-63-6	1,2,4-Trimethylbenzene	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U	6.2	12	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	96-18-4	1,2,3-Trichloropropane	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	98-06-6	TERT-BUTYLBENZENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	98-82-8	ISOPROPYLBENZENE	4.9	U	1.2	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B	2/17/2012	5035	12B137	5.3	0.92	99-87-6	P-ISOPROPYLTOLUENE	4.9	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.5	2/14/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B137-01	EMXT	8260B SIM	2/15/2012	5035	12B137	5.3	0.89	123-91-1	1,4-DIOXANE	9.4	U	2.5	6.2	ug/kg	U			-118.7136	34.2323317
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	300.0	2/17/2012	Gen Prep	12B160	10.5	1	14797-55-8	Nitrate-NO3	0.902	J	1.2	6.2	mg/kg	J	J	Z	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	300.0	2/17/2012	Gen Prep	12B160	10.5	1	14797-65-0	Nitrite-NO2	1.68	U	2.5	6.2	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	300.0	2/17/2012	Gen Prep	12B160	10.5	1	16984-48-8	FLUORIDE	4.39		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	314.0	2/17/2012	Gen Prep	12B160	10.5	1	14797-73-0	PERCHLORATE	22.3	U	2.5	6.2	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7429-90-5	ALUMINUM	17800		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-89-6	IRON	32600		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-92-1	LEAD	8.37		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-93-2	LITHIUM	31.4		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-95-4	MAGNESIUM	6170		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-96-5	MANGANESE	241		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7439-98-7	MOLYBDENUM	0.848		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-02-0	NICKEL	11.8		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-09-7	POTASSIUM	2330		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-22-4	SILVER	0.111	U	6.2	12	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-23-5	SODIUM	238		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-24-6	STRONTIUM	28.1		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-28-0	THALLIUM	0.348		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-31-5	TIN	11.1	U	2.5	6.2	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-32-6	TITANIUM	1080		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-36-0	ANTIMONY	0.288		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-38-2	Arsenic	8.56		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-39-3	BARIUM	95.5		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-41-7	BERYLLIUM	0.904		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-42-8	BORON	5.53	U	2.5	6.2	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-43-9	CADMIUM	0.158		2.5	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-47-3	CHROMIUM	23.4		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-48-4	COBALT	5.29		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-50-8	COPPER	9.71		1.2	6.2	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-62-2	VANADIUM	45.9		6.7	13	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-66-6	ZINC	60.3		0.969	1.94	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-67-7	Zirconium	5.53	U	0.969	1.94	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7440-70-2	CALCIUM	3720		0.646	1.29	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7723-14-0	PHOSPHORUS	295		12.9	25.8	mg/kg				-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	6020	2/24/2012	Gen Prep	12B160	10.5	0.99	7782-49-2	SELENIUM	0.442	U	14.2	28.4	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02R	EMXT	7199	2/17/2012	Gen Prep	12B160	10.5	1	18540-29-9	HEXAVALENT CHROMIUM	1.12	U	11.8	23.7	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	7199	2/17/2012	Gen Prep	12B160	10.5	1	18540-29-9	HEXAVALENT CHROMIUM	1.12	U	0.118	0.237	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	7471A	2/21/2012	7471A	12B160	10.5	1	7439-97-6	Mercury	0.112	U	1.18	2.37	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.5	1	64-17-5	ETHANOL	560	U	5.92	11.8	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.5	1	67-56-1	METHANOL	560	U	0.296	0.592	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B	2/17/2012	Gen Prep	12B160	10.5	1	67-63-0	Isopropanol	560	U	0.0592	0.118	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC12C14	EFH (C12-C14)	1.1	U	0.0592	0.118	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC15C20	EFH (C15-C20)	1.1	U	59.2	118	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC21C30	EFH (C21-C30)	1.1	U	0.296	0.592	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC30C40	EFH (C30-C40)	1.1	U	0.0592	0.118	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC8C11	EFH (C8-C11)	0.63	J	5.92	11.8	mg/kg	J	J	Z	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015B EFH	2/23/2012	3550B	12B160	10.5	1	PHCC8C40	TOTAL EFH(C8-C40)	0.63	J	0.592	1.18	mg/kg	J	J	Z	-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.5	1	107-21-1	ETHYLENE GLYCOL	11	U	0.118	0.237	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.5	1	111-46-6	DIETHYLENE GLYCOL	17	U	0.237	0.474	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8015M	2/21/2012	Gen Prep	12B160	10.5	1	57-55-6	Propylene glycol	11	U	0.237	0.474	mg/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11096-82-5	Aroclor 1260	1.9	U	0.0592	0.118	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11097-69-1	Aroclor 1254	1.9	U	2.96	5.92	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11100-14-4	Aroclor 1268	1.9	U	0.0592	0.118	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11104-28-2	Aroclor 1221	1.9	U	0.237	0.474	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11126-42-4	Aroclor 5460	3.7	U	0.0592	0.118	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	11141-16-5	Aroclor 1232	1.9	U	0.237	0.474	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	12642-23-8	Aroclor 5442	3.7	U	0.0592	0.118	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	12672-29-6	Aroclor 1248	1.9	U	1.78	3.55	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	12674-11-2	Aroclor 1016	1.9	U	2.96	5.92	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	37324-23-5	Aroclor 1262	1.9	U	7.11	14.2	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	53469-21-9	Aroclor 1242	1.9	U	0.237	0.474	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8082	2/24/2012	3550B	12B160	10.5	1	63496-31-1	Aroclor 5432	3.7	U	0.646	1.29	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	100-01-6	4-NITROANILINE	190	U	0.0641	0.128	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	100-02-7	4-NITROPHENOL	370	U	320	650	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	100-51-6	BENZYL ALCOHOL	190	U	320	650	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	190	U	320	650	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	105-67-9	2,4-DIMETHYLPHENOL	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	106-44-5	4-METHYLPHENOL	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	106-46-7	1,4-DICHLOROBENZENE	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	106-47-8	4-CHLOROANILINE	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	108-68-9	3,5-Dimethylphenol	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	108-95-2	PHENOL	190	U	65	130	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	190	U	6.5	13	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	111-76-2	2-butoxy-Ethanol	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	118-74-1	HEXACHLOROBENZENE	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	119-64-2	Tetralin	190	U	94	190	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	120-82-1	1,2,4-Trichlorobenzene	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	120-83-2	2,4-DICHLOROPHENOL	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	121-14-2	2,4-DINITROTOLUENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	122-99-6	2-phenoxy-Ethanol	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	132-64-9	DIBENZOFURAN	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	51-28-5	2,4-DINITROPHENOL	370	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	370	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	541-73-1	1,3-DICHLOROBENZENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	59-50-7	4-CHLORO-3-METHYLPHENOL	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	606-20-2	2,6-DINITROTOLUENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	62-53-3	ANILINE	370	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	65-85-0	BENZOIC ACID	750	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	67-72-1	HEXACHLOROETHANE	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	78-59-1	ISOPHORONE	190	U	9.4	19	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	86-30-6	N-NITROSODIPHENYLAMINE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	86-74-8	CARBAZOLE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	87-68-3	HEXACHLOROBUTADIENE	190	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	87-86-5	PENTACHLOROPHENOL	370	U	0.95	1.9	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	88-06-2	2,4,6-TRICHLOROPHENOL	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	88-74-4	2-NITROANILINE	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	88-75-5	2-NITROPHENOL	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	91-58-7	2-CHLORONAPHTHALENE	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	91-94-1	3,3'-DICHLOROBENZIDINE	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	92-87-5	BENZIDINE	930	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	95-48-7	2-METHYLPHENOL	190	U	50	99	ug/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-47-3	CHROMIUM	12.1		99	200	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-48-4	COBALT	4.28		50	99	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-50-8	COPPER	5.8		99	200	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-62-2	VANADIUM	26.1	J	50	99	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-66-6	ZINC	52.1		50	99	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-67-7	Zirconium	5.21	U	50	99	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7440-70-2	CALCIUM	3110	J	50	99	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7723-14-0	PHOSPHORUS	278		50	99	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	6020	2/24/2012	Gen Prep	12B189	6.3	0.976	7782-49-2	SELENIUM	0.417	U	50	99	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04R	EMXT	7199	2/24/2012	Gen Prep	12B189	6.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	U	490	990	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	7199	2/24/2012	Gen Prep	12B189	6.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.07	U	490	990	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	7471A	2/28/2012	7471A	12B189	6.3	0.992	7439-97-6	Mercury	0.106	U	0.279	0.559	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B	2/22/2012	Gen Prep	12B189	6.3	1	64-17-5	ETHANOL	530	U	0.1	0.1	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B	2/22/2012	Gen Prep	12B189	6.3	1	67-56-1	METHANOL	530	U	0.50	1.0	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B	2/22/2012	Gen Prep	12B189	6.3	1	67-63-0	Isopropanol	530	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC12C14	EFH (C12-C14)	1.1	U	1.0	5.2	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC15C20	EFH (C15-C20)	1.1	U	1.0	5.2	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC21C30	EFH (C21-C30)	7.1		1.0	5.2	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC30C40	EFH (C30-C40)	15		1.0	5.2	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC8C11	EFH (C8-C11)	0.54	J	1.0	5.2	mg/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015B EFH	2/23/2012	3550B	12B189	6.3	1	PHCC8C40	TOTAL EFH(C8-C40)	23		1.0	5.2	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015M	2/24/2012	Gen Prep	12B189	6.3	1	107-21-1	ETHYLENE GLYCOL	11	U	1.0	5.2	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015M	2/24/2012	Gen Prep	12B189	6.3	1	111-46-6	DIETHYLENE GLYCOL	16	U	5.2	10	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8015M	2/24/2012	Gen Prep	12B189	6.3	1	57-55-6	Propylene glycol	11	U	1.0	5.2	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11096-82-5	Aroclor 1260	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11097-69-1	Aroclor 1254	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11100-14-4	Aroclor 1268	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11104-28-2	Aroclor 1221	11	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11126-42-4	Aroclor 5460	21	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	11141-16-5	Aroclor 1232	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	12642-23-8	Aroclor 5442	21	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	12672-29-6	Aroclor 1248	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	12674-11-2	Aroclor 1016	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	37324-23-5	Aroclor 1262	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	53469-21-9	Aroclor 1242	11	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8082	2/25/2012	3550B	12B189	0	6.3	63496-31-1	Aroclor 5432	21	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	100-01-6	4-NITROANILINE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	100-02-7	4-NITROPHENOL	360	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	100-51-6	BENZYL ALCOHOL	180	U	5.2	10	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	106-44-5	4-METHYLPHENOL	180	U	5.2	10	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	106-46-7	1,4-DICHLOROBENZENE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	106-47-8	4-CHLOROANILINE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	108-68-9	3,5-Dimethylphenol	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	108-95-2	PHENOL	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	111-76-2	2-butoxy-Ethanol	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	118-74-1	HEXACHLOROBENZENE	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	119-64-2	Tetralin	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	120-82-1	1,2,4-Trichlorobenzene	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	120-83-2	2,4-DICHLOROPHENOL	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	121-14-2	2,4-DINITROTOLUENE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	122-99-6	2-phenoxy-Ethanol	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	132-64-9	DIBENZOFURAN	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	51-28-5	2,4-DINITROPHENOL	360	U	5.2	10	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	541-73-1	1,3-DICHLOROBENZENE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	606-20-2	2,6-DINITROTOLUENE	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	62-53-3	ANILINE	360	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	65-85-0	BENZOIC ACID	710	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	67-72-1	HEXACHLOROETHANE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	78-59-1	ISOPHORONE	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	2.1	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	86-74-8	CARBAZOLE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	87-68-3	HEXACHLOROBUTADIENE	180	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	87-86-5	PENTACHLOROPHENOL	360	U	1.0	5.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	4.9	9.8	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	88-74-4	2-NITROANILINE	180	U	0.561	1.12	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	88-75-5	2-NITROPHENOL	180	U	11.2	22.4	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	91-58-7	2-CHLORONAPHTHALENE	180	U	12.7	25.4	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	10.6	21.1	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	92-87-5	BENZIDINE	890	U	0.106	0.211	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	95-48-7	2-METHYLPHENOL	180	U	1.06	2.11	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	95-50-1	1,2-Dichlorobenzene	180	U	5.29	10.6	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	95-57-8	2-CHLOROPHENOL	180	U	0.264	0.529	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	0.0529	0.106	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	98-95-3	NITROBENZENE	180	U	0.211	0.423	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C	2/27/2012	3550B	12B189	6.3	1	99-09-2	3-NITROANILINE	180	U	31.7	63.4	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U	0.0529	0.106	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	117-84-0	Di-n-octylphthalate	18	U	52.9	106	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	120-12-7	ANTHRACENE	1.8	U	0.264	0.529	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	129-00-0	PYRENE	2.8		0.0529	0.106	ug/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	131-11-3	Dimethylphthalate	18	U	5.29	10.6	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	191-24-2	BENZO(G,H,I)PERYLENE	1.6	J	0.106	0.211	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	0.211	0.423	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	205-99-2	BENZO(B)FLUORANTHENE	2.1		0.211	0.423	ug/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	206-44-0	FLUORANTHENE	1.9		0.0529	0.106	ug/kg				-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	207-08-9	BENZO(K)FLUORANTHENE	1	J	2.64	5.29	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.188	0.376	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	218-01-9	CHRYSENE	1.5	J	0.0470	0.0940	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	50-32-8	BENZO(A)PYRENE	1.5	J	9.40	18.8	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	5.64	11.3	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	56-55-3	BENZO(A)ANTHRACENE	1.4	J	0.188	0.376	ug/kg	J	J	Z	-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	2.60	5.19	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	83-32-9	ACENAPHTHENE	1.8	U	0.519	1.04	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	84-66-2	Diethylphthalate	18	U	0.519	1.04	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	84-74-2	Di-n-butylphthalate	18	U	0.0511	0.102	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	85-01-8	PHENANTHRENE	1.8	U	260	520	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	85-68-7	Butylbenzylphthalate	18	U	260	520	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	86-73-7	FLUORENE	1.8	U	260	520	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.52	1.0	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	91-20-3	NAPHTHALENE	1.8	U	0.52	1.0	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	8270C SIM	2/27/2012	3550B	12B189	6.3	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.52	1.0	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-18.5-19.5	2/21/2012	N	18.5	19.5	ft bgs	SO	DeepBoring	B189-04	EMXT	9045D	2/22/2012	Gen Prep	12B189	6.3	1	pH	PH	8.46		0.52	1.0	pH unit	0.1			-118.7116	34.2336237
SL-188-SA7-SB-19.0	2/21/2012	N	19	19	ft bgs	SO	DeepBoring	B189-03	EMXT	8015B GRO	2/23/2012	5035	12B189	6.5	0.87	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.93	U	0.52	1.0	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	300.0	2/24/2012	Gen Prep	12B189	3.7	1	14797-55-8	Nitrate-NO3	1.73		5.2	10	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	300.0	2/24/2012	Gen Prep	12B189	3.7	1	14797-65-0	Nitrite-NO2	1.56	U	7.8	16	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	300.0	2/24/2012	Gen Prep	12B189	3.7	1	16984-48-8	FLUORIDE	2.41		5.2	10	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	314.0	2/23/2012	Gen Prep	12B189	3.7	1	14797-73-0	PERCHLORATE	20.8	U	3.1	6.3	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7429-90-5	ALUMINUM	8560	J	3.1	6.3	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-89-6	IRON	18500		3.1	6.3	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-92-1	LEAD	4.68	J	3.1	6.3	mg/kg		J	Q, E	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-93-2	LITHIUM	27.2		6.3	12	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-95-4	MAGNESIUM	4030		3.1	6.3	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-96-5	MANGANESE	230		6.3	12	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7439-98-7	MOLYBDENUM	0.484		3.1	6.3	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-02-0	NICKEL	11.4		3.1	6.3	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-09-7	POTASSIUM	2840		3.1	6.3	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-22-4	SILVER	0.094	U	3.1	6.3	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-23-5	SODIUM	163		6.3	12	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-24-6	STRONTIUM	10.1		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-28-0	THALLIUM	0.344		170	350	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-31-5	TIN	9.4	U	87	170	mg/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-32-6	TITANIUM	898		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-36-0	ANTIMONY	0.172	J	87	170	mg/kg	J	J	Q, Z	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-38-2	Arsenic	5.77		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-39-3	BARIUM	68.1	J	87	170	mg/kg		J	Q	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-41-7	BERYLLIUM	0.419		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-42-8	BORON	4.7	UJ	87	170	mg/kg	U	UJ	E	-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-43-9	CADMIUM	0.129		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-47-3	CHROMIUM	14.4		87	170	mg/kg				-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-48-4	COBALT	5.05		170	170	mg/kg				-118.7116	34.2336237
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	57117-41-6	1,2,3,7,8-PECDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.37	U	170	170	ng/kg	JB	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.37	U	87	170	ng/kg	JB	U	B	-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	6552772	LL	1613B	2/22/2012	METHOD	DX158	7.4	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	1746-01-6	2,3,7,8-TCDD	1.07	U	87	170	ng/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	3268-87-9	OCDD	22.5		170	350	ng/kg	B			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	2.46	J	87	170	ng/kg	JB	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	39001-02-0	OCDF	10.7	U	87	170	ng/kg	JB	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	40321-76-4	1,2,3,7,8-PECDD	5.37	U	87	170	ng/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	51207-31-9	2,3,7,8-TCDF	1.07	U	440	860	ng/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	57117-31-4	2,3,4,7,8-PECDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	57117-41-6	1,2,3,7,8-PECDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.37	U	87	170	ng/kg	JBQ	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.37	U	87	170	ng/kg	JB	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.37	U	87	170	ng/kg	JB	U	B	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.37	U	8.7	17	ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.37	U	8.7	17	ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	6555639	LL	1613B	2/28/2012	METHOD	DX158	6.9	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.37	U	0.88	1.8	ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	300.0	2/16/2012	Gen Prep	12B146	9.0	1	14797-55-8	Nitrate-NO3	1.65	U	0.88	1.8	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	300.0	2/16/2012	Gen Prep	12B146	9.0	1	14797-65-0	Nitrite-NO2	1.65	U	0.88	1.8	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	300.0	2/16/2012	Gen Prep	12B146	9.0	1	16984-48-8	FLUORIDE	6.35		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	314.0	2/17/2012	Gen Prep	12B146	9.0	1	14797-73-0	PERCHLORATE	22	U	0.88	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7429-90-5	ALUMINUM	11700		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-89-6	IRON	19400		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-92-1	LEAD	5.19		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-93-2	LITHIUM	24		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-95-4	MAGNESIUM	4260		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-96-5	MANGANESE	287		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7439-98-7	MOLYBDENUM	0.334		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-02-0	NICKEL	7.86		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-09-7	POTASSIUM	2790		8.7	17	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-88-3	TOLUENE	4.9	U	8.7	17	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-22-4	SILVER	0.11	U	0.88	1.8	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-23-5	SODIUM	347		8.7	17	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-24-6	STRONTIUM	20.6		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-28-0	THALLIUM	0.251		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-31-5	TIN	11	U	0.88	1.8	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-32-6	TITANIUM	990		0.88	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-36-0	ANTIMONY	0.22	U	0.1	0.1	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-38-2	Arsenic	3.68		0.51	1.0	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-39-3	BARIUM	88		0.50	0.50	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-41-7	BERYLLIUM	0.507		184	368	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-42-8	BORON	5.49	U	1.7	3.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-43-9	CADMIUM	0.159		1.7	3.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-47-3	CHROMIUM	12.7		1.7	3.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-48-4	COBALT	4.51		1300	3300	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-50-8	COPPER	6.87		0.50	0.50	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-62-2	VANADIUM	28.7		184	368	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-66-6	ZINC	58.4		1.7	3.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-67-7	Zirconium	5.49	U	1.7	3.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7440-70-2	CALCIUM	5370		1.7	3.9	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7723-14-0	PHOSPHORUS	395		1300	3300	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	6020	2/24/2012	Gen Prep	12B146	9.0	1	7782-49-2	SELENIUM	0.44	U	0.50	0.50	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	7199	2/17/2012	Gen Prep	12B146	9.0	1	18540-29-9	HEXAVALENT CHROMIUM	1.1	U	18.5	37.0	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	7199	2/17/2012	Gen Prep	12B146	9.0	1	18540-29-9	HEXAVALENT CHROMIUM	1.1	U	1.7	3.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	7471A	2/21/2012	7471A	12B146	9.0	0.993	7439-97-6	Mercury	0.109	U	1.7	3.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015B	2/17/2012	Gen Prep	12B146	9.0	1	64-17-5	ETHANOL	550	U	1.7	3.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015B	2/17/2012	Gen Prep	12B146	9.0	1	67-56-1	METHANOL	550	U	1300	3400	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015B	2/17/2012	Gen Prep	12B146	9.0	1	67-63-0	Isopropanol	550	U	0.50	0.50	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC12C14	EFH (C12-C14)	1.1	U	92	180	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC15C20	EFH (C15-C20)	1.1	U	92	180	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC21C30	EFH (C21-C30)	4		460	910	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC30C40	EFH (C30-C40)	5.3		92	180	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC8C11	EFH (C8-C11)	1.1	U	92	180	mg/kg	J	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04R	EMXT	8015B EFH	2/17/2012	3550B	12B146	9.0	1	PHCC8C40	TOTAL EFH(C8-C40)	10		92	180	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015M	2/21/2012	Gen Prep	12B146	9.0	1	107-21-1	ETHYLENE GLYCOL	11	U	92	180	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015M	2/21/2012	Gen Prep	12B146	9.0	1	111-46-6	DIETHYLENE GLYCOL	16	U	92	180	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8015M	2/21/2012	Gen Prep	12B146	9.0	1	57-55-6	Propylene glycol	11	U	92	180	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11096-82-5	Aroclor 1260	1.9	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11097-69-1	Aroclor 1254	1.9	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11100-14-4	Aroclor 1268	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11104-28-2	Aroclor 1221	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11126-42-4	Aroclor 5460	3.6	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	11141-16-5	Aroclor 1232	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	12642-23-8	Aroclor 5442	3.6	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	12672-29-6	Aroclor 1248	3.9		0.93	1.9	ug/kg				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	12674-11-2	Aroclor 1016	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	37324-23-5	Aroclor 1262	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	53469-21-9	Aroclor 1242	1.9	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8082	2/18/2012	3550B	12B146	9.0	1	63496-31-1	Aroclor 5432	3.6	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	100-01-6	4-NITROANILINE	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	100-02-7	4-NITROPHENOL	370	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	100-51-6	BENZYL ALCOHOL	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	105-67-9	2,4-DIMETHYLPHENOL	180	U	9.2	18	ug/kg	U			-118.71359	34.2323947

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	106-44-5	4-METHYLPHENOL	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	106-46-7	1,4-DICHLOROBENZENE	180	U	9.2	18	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	106-47-8	4-CHLOROANILINE	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	108-68-9	3,5-Dimethylphenol	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	108-95-2	PHENOL	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U	0.93	1.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	111-76-2	2-butoxy-Ethanol	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	118-74-1	HEXACHLOROBENZENE	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	119-64-2	Tetralin	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	120-82-1	1,2,4-Trichlorobenzene	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	120-83-2	2,4-DICHLOROPHENOL	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	121-14-2	2,4-DINITROTOLUENE	180	U	100	200	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	122-99-6	2-phenoxy-Ethanol	180	U	100	200	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	132-64-9	DIBENZOFURAN	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	51-28-5	2,4-DINITROPHENOL	370	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	370	U	50	100	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	541-73-1	1,3-DICHLOROBENZENE	180	U	500	1000	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U	500	1000	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	606-20-2	2,6-DINITROTOLUENE	180	U	0.275	0.549	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	62-53-3	ANILINE	370	U	0.1	0.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U	0.52	1.0	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	65-85-0	BENZOIC ACID	730	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	67-72-1	HEXACHLOROETHANE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	78-59-1	ISOPHORONE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	86-74-8	CARBAZOLE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	87-68-3	HEXACHLOROBUTADIENE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	87-86-5	PENTACHLOROPHENOL	370	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	131-11-3	Dimethylphthalate	18	U	4.9	9.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	191-24-2	BENZO(G,H,I)PERYLENE	2.7		0.98	4.9	ug/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	U	2.0	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	206-44-0	FLUORANTHENE	1.8	U	2.0	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	218-01-9	CHRYSENE	3.6		0.98	4.9	ug/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	50-32-8	BENZO(A)PYRENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.2	J	0.98	4.9	ug/kg	J	J	Z	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	56-55-3	BENZO(A)ANTHRACENE	6.8		2.0	4.9	ug/kg				-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	83-32-9	ACENAPHTHENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	84-66-2	Diethylphthalate	18	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	84-74-2	Di-n-butylphthalate	16	J	4.9	9.8	ug/kg	J	J	Z	-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	85-01-8	PHENANTHRENE	1.8	U	2.0	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	85-68-7	Butylbenzylphthalate	18	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	86-73-7	FLUORENE	1.8	U	4.9	9.8	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.98	4.9	ug/kg	U			-118.71163	34.233596
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	91-20-3	NAPHTHALENE	1.8	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	8270C SIM	2/27/2012	3550B	12B201	6.3	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-187-SA7-SB-27.5-28.5	2/22/2012	N	27.5	28.5	ft bgs	SO	DeepBoring	B201-03	EMXT	9045D	2/22/2012	Gen Prep	12B201	6.3	1	pH	PH	8.2		2.0	4.9	pH unit	0.1			-118.70844	34.2352597
SL-187-SA7-SB-28.0	2/22/2012	N	28	28	ft bgs	SO	DeepBoring	B201-02	EMXT	8015B GRO	2/24/2012	5035	12B201	7.4	0.94	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.98	4.9	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01I	EMXT	8015B GRO	2/22/2012	5035	12B174	27.0	86	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1500		2.0	4.9	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	100-41-4	ETHYLBENZENE	3.7	J	2.0	4.9	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	100-42-5	STYRENE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	10061-01-5	CIS-1,3-DICHLOROPROPENE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	103-65-1	N-PROPYLBENZENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	104-51-8	N-BUTYLBENZENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	106-43-4	4-CHLOROTOLUENE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	106-46-7	1,4-DICHLOROBENZENE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	106-93-4	1,2-Dibromoethane (EDB)	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	107-06-2	1,2-Dichloroethane	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	108-10-1	4-METHYL-2-PENTANONE (MIBK)	12	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	108-67-8	1,3,5-Trimethylbenzene	6.2	U	4.9	9.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	108-86-1	BROMOBENZENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	108-88-3	TOLUENE	2.9	J	0.98	4.9	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	108-90-7	Chlorobenzene	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	110-75-8	2-CHLOROETHYL VINYL ETHER	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	120-82-1	1,2,4-Trichlorobenzene	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	124-48-1	DIBROMOCHLOROMETHANE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	127-18-4	TETRACHLOROETHENE	5.8	J	0.98	4.9	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	135-98-8	SEC-BUTYLBENZENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	142-28-9	1,3-DICHLOROPROPANE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	156-59-2	CIS-1,2-DICHLOROETHENE	6.2	U	0.98	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	156-60-5	TRANS-1,2-DICHLOROETHENE	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	6.2	U	2.0	4.9	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	179601-23-1	m,p-Xylene	3.2	J	0.98	4.9	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	541-73-1	1,3-DICHLOROBENZENE	6.2	U	0.846	1.69	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	56-23-5	CARBON TETRACHLORIDE	6.2	U	0.564	1.13	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	563-58-6	1,1-Dichloropropene	6.2	U	11.3	22.5	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	591-78-6	2-HEXANONE	12	U	13.2	26.4	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	594-20-7	2,2-DICHLOROPROPANE	6.2	U	11.0	22.0	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	630-20-6	1,1,1,2-Tetrachloroethane	6.2	U	0.110	0.220	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	67-64-1	ACETONE	12	U	1.10	2.20	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	67-66-3	CHLOROFORM	6.2	U	5.50	11.0	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	71-43-2	BENZENE	6.2	U	0.275	0.550	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	71-55-6	1,1,1-Trichloroethane	6.2	U	0.0550	0.110	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	74-83-9	BROMOMETHANE	6.2	U	0.220	0.440	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	74-87-3	CHLOROMETHANE	6.2	U	33.0	66.0	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	74-95-3	DIBROMOMETHANE	6.2	U	0.0550	0.110	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	74-97-5	BROMOCHLOROMETHANE	6.2	U	55.0	110	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-00-3	Chloroethane	6.2	U	0.275	0.550	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-01-4	VINYL CHLORIDE	6.2	U	9.7	19	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-09-2	METHYLENE CHLORIDE	6.2	U	6.5	13	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-25-2	BROMOFORM	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-27-4	BROMODICHLOROMETHANE	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-34-3	1,1-Dichloroethane	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-35-4	1,1-Dichloroethene	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-69-4	TRICHLOROFLUOROMETHANE	6.2	U	2.2	4.3	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-71-8	DICHLORODIFLUOROMETHANE	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	75-88-7	2-Chloro-1,1,1-trifluoroethane	6.2	U	2.2	4.3	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	78-87-5	1,2-Dichloropropane	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	78-93-3	2-BUTANONE (MEK)	12	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	79-00-5	1,1,2-Trichloroethane	6.2	U	1.1	2.2	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	79-01-6	TRICHLOROETHENE	6.2	U	2.2	4.3	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	79-34-5	1,1,2,2-Tetrachloroethane	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	79-38-9	Chlorotrifluoroethylene	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	87-61-6	1,2,3-Trichlorobenzene	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	87-68-3	HEXACHLOROBUTADIENE	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	95-47-6	O-XYLENE	1.5	J	50	100	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	95-49-8	2-CHLOROTOLUENE	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	95-50-1	1,2-Dichlorobenzene	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	95-63-6	1,2,4-Trimethylbenzene	3	J	100	200	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	96-12-8	1,2-Dibromo-3-Chloropropane	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	96-18-4	1,2,3-Trichloropropane	6.2	U	100	200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	98-06-6	TERT-BUTYLBENZENE	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	98-82-8	ISOPROPYLBENZENE	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01	EMXT	8260B	2/22/2012	5035	12B174	27.0	0.91	99-87-6	P-ISOPROPYLTOLUENE	6.2	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.0	2/17/2012	N	22	22	ft bgs	SO	DeepBoring	B174-01R	EMXT	8260B SIM	2/23/2012	5035	12B174	27.0	0.98	123-91-1	1,4-DIOXANE	13	U	50	100	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	300.0	2/21/2012	Gen Prep	12B174	22.6	1	14797-55-8	Nitrate-NO3	1.94	U	50	100	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	300.0	2/21/2012	Gen Prep	12B174	22.6	1	14797-65-0	Nitrite-NO2	1.94	U	500	1000	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	300.0	2/21/2012	Gen Prep	12B174	22.6	1	16984-48-8	FLUORIDE	1.29	U	500	1000	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	314.0	2/23/2012	Gen Prep	12B174	22.6	1	14797-73-0	PERCHLORATE	25.8	U	0.323	0.646	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7429-90-5	ALUMINUM	9850	J	0.1	0.1	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-89-6	IRON	34300		0.818	1.64	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-92-1	LEAD	633	J	0.818	1.64	mg/kg		J	Q, E	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-93-2	LITHIUM	6.53		0.545	1.09	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-95-4	MAGNESIUM	5010		10.9	21.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-96-5	MANGANESE	242		13.0	26.0	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7439-98-7	MOLYBDENUM	0.682		10.9	21.7	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-02-0	NICKEL	8.17		0.109	0.217	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-09-7	POTASSIUM	1940		1.09	2.17	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-22-4	SILVER	0.0974	J	5.43	10.9	mg/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-23-5	SODIUM	317		0.271	0.543	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-24-6	STRONTIUM	73.5		0.0543	0.109	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-28-0	THALLIUM	0.11	J	0.217	0.434	mg/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-31-5	TIN	11.8	U	32.6	65.1	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-32-6	TITANIUM	787		0.0543	0.109	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-36-0	ANTIMONY	0.292	J	54.3	109	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-38-2	Arsenic	14.8		0.271	0.543	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-39-3	BARIUM	115	J	0.0543	0.109	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-41-7	BERYLLIUM	0.272		5.43	10.9	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-42-8	BORON	5.35	J	0.543	1.09	mg/kg	J	J	Q, E, Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-43-9	CADMIUM	0.398		0.109	0.217	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-47-3	CHROMIUM	10.8		0.217	0.434	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-48-4	COBALT	15.3		0.217	0.434	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-50-8	COPPER	29.6		0.0543	0.109	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-62-2	VANADIUM	29.3	J	2.71	5.43	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-66-6	ZINC	54.8		0.0543	0.109	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-67-7	Zirconium	10.8		0.217	0.434	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7440-70-2	CALCIUM	47900	J	0.0543	0.109	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7723-14-0	PHOSPHORUS	529		0.217	0.434	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	6020	2/24/2012	Gen Prep	12B174	22.6	0.917	7782-49-2	SELENIUM	0.474	U	0.0543	0.109	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02R	EMXT	7199	2/24/2012	Gen Prep	12B174	22.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.29	U	1.63	3.26	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	7199	2/24/2012	Gen Prep	12B174	22.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.29	U	2.71	5.43	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	7471A	2/23/2012	7471A	12B174	22.6	0.993	7439-97-6	Mercury	0.107	J	10.9	21.7	mg/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015B	2/22/2012	Gen Prep	12B174	22.6	1	64-17-5	ETHANOL	650	U	6.51	13.0	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015B	2/22/2012	Gen Prep	12B174	22.6	1	67-56-1	METHANOL	590	J	0.217	0.434	ug/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015B	2/22/2012	Gen Prep	12B174	22.6	1	67-63-0	Isopropanol	650	U	0.545	1.09	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC12C14	EFH (C12-C14)	9200		270	550	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC15C20	EFH (C15-C20)	6800		270	550	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC21C30	EFH (C21-C30)	410		270	550	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC30C40	EFH (C30-C40)	130		2.7	5.5	mg/kg	J			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC8C11	EFH (C8-C11)	470		2.7	5.5	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02I	EMXT	8015B EFH	2/24/2012	3550B	12B174	22.6	100	PHCC8C40	TOTAL EFH(C8-C40)	17000		2.7	5.5	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015M	2/21/2012	Gen Prep	12B174	22.6	1	107-21-1	ETHYLENE GLYCOL	13	U	2.7	5.5	mg/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	95-50-1	1,2-Dichlorobenzene	190	U	2.7	5.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	95-57-8	2-CHLOROPHENOL	190	U	2.7	5.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	95-95-4	2,4,5-TRICHLOROPHENOL	190	U	5.5	11	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	98-95-3	NITROBENZENE	190	U	8.2	16	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C	2/22/2012	3550B	12B160	10.5	1	99-09-2	3-NITROANILINE	190	U	5.5	11	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	117-84-0	Di-n-octylphthalate	19	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	120-12-7	ANTHRACENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	129-00-0	PYRENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	131-11-3	Dimethylphthalate	19	U	1.9	3.6	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	1.9	3.6	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	206-44-0	FLUORANTHENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	0.93	1.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	208-96-8	ACENAPHTHYLENE	1.9	U	1.9	3.6	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	218-01-9	CHRYSENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	50-32-8	BENZO(A)PYRENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	83-32-9	ACENAPHTHENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	84-66-2	Diethylphthalate	19	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	84-74-2	Di-n-butylphthalate	19	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	85-01-8	PHENANTHRENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	85-68-7	Butylbenzylphthalate	19	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	86-73-7	FLUORENE	1.9	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	91-20-3	NAPHTHALENE	1.9	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8270C SIM	2/22/2012	3550B	12B160	10.5	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	118-96-7	2,4,6-TRINITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	121-14-2	2,4-DINITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	121-82-4	RDX	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	2691-41-0	HMX	99	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	479-45-8	Tetryl	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	180	360	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	606-20-2	2,6-DINITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	88-72-2	2-NITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	98-95-3	NITROBENZENE	99	U	180	360	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	99-08-1	3-NITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	99-35-4	1,3,5-Trinitrobenzene	99	U	360	730	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	99-65-0	1,3-DINITROBENZENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8330A	2/24/2012	Gen Prep	12B160	0	0.99	99-99-0	4-NITROTOLUENE	99	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8332	2/24/2012	Gen Prep	12B160	0	0.99	55-63-0	Nitroglycerin	990	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	8332	2/24/2012	Gen Prep	12B160	0	0.99	78-11-5	PETN	990	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	9014	2/17/2012	Gen Prep	12B160	10.5	1	57-12-5	CYANIDE	0.559	U	92	180	mg/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-5.5-6.5	2/16/2012	N	5.5	6.6	ft bgs	SO	DeepBoring	B160-02	EMXT	9045D	2/17/2012	Gen Prep	12B160	10.5	1	pH	PH	8.54		92	180	pH unit	0.1			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01W	EMXT	8015B GRO	2/22/2012	5035	12B160	7.8	0.93	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	92	180	mg/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	100-41-4	ETHYLBENZENE	5.2	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	100-42-5	STYRENE	5.2	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	10061-01-5	CIS-1,3-DICHLOROPROPENE	5.2	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.2	U	92	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	103-65-1	N-PROPYLBENZENE	5.2	U	460	910	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	104-51-8	N-BUTYLBENZENE	5.2	U	0.0473	0.0946	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	106-43-4	4-CHLOROTOLUENE	5.2	U	1.42	2.84	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	106-46-7	1,4-DICHLOROBENZENE	5.2	U	2.36	4.73	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	106-93-4	1,2-Dibromoethane (EDB)	5.2	U	9.46	18.9	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	107-06-2	1,2-Dichloroethane	5.2	U	5.68	11.4	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	108-10-1	4-METHYL-2-PENTANONE (MIBK)	10	U	0.189	0.378	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	108-67-8	1,3,5-Trimethylbenzene	5.2	U	0.530	1.06	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	108-86-1	BROMOBENZENE	5.2	U	0.530	1.06	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	108-88-3	TOLUENE	5.2	U	0.0530	0.106	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	108-90-7	Chlorobenzene	5.2	U	260	530	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	110-75-8	2-CHLOROETHYL VINYL ETHER	5.2	U	260	530	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	120-82-1	1,2,4-Trichlorobenzene	5.2	U	260	530	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	124-48-1	DIBROMOCHLOROMETHANE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	127-18-4	TETRACHLOROETHENE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	135-98-8	SEC-BUTYLBENZENE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	142-28-9	1,3-DICHLOROPROPANE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	156-59-2	CIS-1,2-DICHLOROETHENE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	156-60-5	TRANS-1,2-DICHLOROETHENE	5.2	U	0.53	1.1	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	5.2	U	5.3	11	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	179601-23-1	m,p-Xylene	5.2	U	5.3	11	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	541-73-1	1,3-DICHLOROBENZENE	5.2	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	56-23-5	CARBON TETRACHLORIDE	5.2	U	9.5	18	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	563-58-6	1,1-Dichloropropene	5.2	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	591-78-6	2-HEXANONE	10	U	9.5	18	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	594-20-7	2,2-DICHLOROPROPANE	5.2	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	630-20-6	1,1,1,2-Tetrachloroethane	5.2	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	67-64-1	ACETONE	10	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	67-66-3	CHLOROFORM	5.2	U	4.8	9.5	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	71-43-2	BENZENE	5.2	U	9.5	18	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	71-55-6	1,1,1-Trichloroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	74-83-9	BROMOMETHANE	5.2	U	180	350	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	74-87-3	CHLOROMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	74-95-3	DIBROMOMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	74-97-5	BROMOCHLOROMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-00-3	Chloroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-01-4	VINYL CHLORIDE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-09-2	METHYLENE CHLORIDE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-25-2	BROMOFORM	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-27-4	BROMODICHLOROMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-34-3	1,1-Dichloroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-35-4	1,1-Dichloroethene	5.2	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-69-4	TRICHLOROFLUOROMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-71-8	DICHLORODIFLUOROMETHANE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	75-88-7	2-Chloro-1,1,1-trifluoroethane	5.2	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	78-87-5	1,2-Dichloropropane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	78-93-3	2-BUTANONE (MEK)	10	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	79-00-5	1,1,2-Trichloroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	79-01-6	TRICHLOROETHENE	5.2	U	180	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	79-38-9	Chlorotrifluoroethylene	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	87-61-6	1,2,3-Trichlorobenzene	5.2	U	180	350	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	87-68-3	HEXACHLOROBUTADIENE	5.2	U	180	350	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	95-47-6	O-XYLENE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	95-49-8	2-CHLOROTOLUENE	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	95-50-1	1,2-Dichlorobenzene	5.2	U	89	180	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	95-63-6	1,2,4-Trimethylbenzene	5.2	U	180	350	ug/kg	U			-118.7083	34.2353203
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	96-12-8	1,2-Dibromo-3-Chloropropane	5.2	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	96-18-4	1,2,3-Trichloropropane	5.2	U	350	710	ug/kg	U			-118.70844	34.2352039
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	98-06-6	TERT-BUTYLBENZENE	5.2	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	98-82-8	ISOPROPYLBENZENE	5.2	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B	2/22/2012	5035	12B160	7.8	0.96	99-87-6	P-ISOPROPYLTOLUENE	5.2	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-260-SA5A-SB-6.0	2/16/2012	N	6	6	ft bgs	SO	DeepBoring	B160-01	EMXT	8260B SIM	2/17/2012	5035	12B160	7.8	0.9	123-91-1	1,4-DIOXANE	9.8	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	300.0	2/17/2012	Gen Prep	12B160	10.8	1	16984-48-8	FLUORIDE	1.35		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	314.0	2/17/2012	Gen Prep	12B160	10.8	1	14797-73-0	PERCHLORATE	22.4	U	89	180	ug/kg	U			-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7429-90-5	ALUMINUM	9090		180	350	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-89-6	IRON	17500		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-92-1	LEAD	3.36		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-93-2	LITHIUM	21.1		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-95-4	MAGNESIUM	4130		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-96-5	MANGANESE	200		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7439-98-7	MOLYBDENUM	0.299		440	880	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-02-0	NICKEL	6.53		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-09-7	POTASSIUM	1920		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-22-4	SILVER	0.106	U	89	180	mg/kg	U			-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-23-5	SODIUM	345		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-24-6	STRONTIUM	9.42		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-28-0	THALLIUM	0.235		89	180	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-31-5	TIN	10.6	U	8.9	18	mg/kg	U			-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-32-6	TITANIUM	813		8.9	18	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-36-0	ANTIMONY	0.122	J	0.90	1.8	mg/kg	J	J	Z	-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-38-2	Arsenic	3.12		0.90	1.8	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-39-3	BARIUM	53.7		8.9	18	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-41-7	BERYLLIUM	0.432		0.90	1.8	mg/kg				-118.70844	34.2352039
SL-324-SA6-SB-25.0-26.0	2/16/2012	N	25	26	ft bgs	SO	DeepBoring	B160-04	EMXT	6020	2/24/2012	Gen Prep	12B160	10.8	0.943	7440-42-8	BORON	5.29	U	0.90	1.8	mg/kg	U			-118.7136	34.2323317
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-50-8	COPPER	8.04		0.90	1.8	mg/kg				-118.7136	34.2323317
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-62-2	VANADIUM	27.5	J	0.90	1.8	mg/kg		J	Q	-118.7136	34.2323317
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-66-6	ZINC	56.2		0.90	1.8	mg/kg				-118.7136	34.2323317
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-67-7	Zirconium	4.7	U	0.90	1.8	mg/kg	U			-118.7136	34.2323317
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7440-70-2	CALCIUM	2290	J	0.90	1.8	mg/kg		J	Q	-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7723-14-0	PHOSPHORUS	387		0.90	1.8	mg/kg				-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6020	2/24/2012	Gen Prep	12B189	3.7	0.905	7782-49-2	SELENIUM	0.216	J	0.90	1.8	mg/kg	J	J	Z	-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	6850	3/2/2012	Gen Prep	12B189	3.7	1	14797-73-0	PERCHLORATE	5.19	U	0.90	1.8	ug/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06R	EMXT	7199	2/24/2012	Gen Prep	12B189	3.7	1	18540-29-9	HEXAVALENT CHROMIUM	1.04	U	0.90	1.8	mg/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	7199	2/24/2012	Gen Prep	12B189	3.7	1	18540-29-9	HEXAVALENT CHROMIUM	1.04	U	0.90	1.8	mg/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	7471A	2/28/2012	7471A	12B189	3.7	0.985	7439-97-6	Mercury	0.102	U	8.9	18	mg/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015B	2/22/2012	Gen Prep	12B189	3.7	1	64-17-5	ETHANOL	520	U	8.9	18	ug/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015B	2/22/2012	Gen Prep	12B189	3.7	1	67-56-1	METHANOL	520	U	0.90	1.8	ug/kg	U			-118.70893	34.2338012
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015B	2/22/2012	Gen Prep	12B189	3.7	1	67-63-0	Isopropanol	520	U	8.9	18	ug/kg	U			-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC12C14	EFH (C12-C14)	1	U	0.90	1.8	mg/kg	U			-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC15C20	EFH (C15-C20)	1	U	0.90	1.8	mg/kg	U			-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC21C30	EFH (C21-C30)	0.94	J	0.1	0.1	mg/kg	J	J	Z	-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC30C40	EFH (C30-C40)	1	U	0.52	1.0	mg/kg	U			-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC8C11	EFH (C8-C11)	0.66	J	0.814	1.63	mg/kg	J	J	Z	-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06W	EMXT	8015B EFH	2/24/2012	3550B	12B189	3.7	1	PHCC8C40	TOTAL EFH(C8-C40)	1.6		0.814	1.63	mg/kg				-118.7089	34.2338052
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015M	2/24/2012	Gen Prep	12B189	3.7	1	107-21-1	ETHYLENE GLYCOL	10	U	0.543	1.09	mg/kg	U			-118.7083	34.2353203
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015M	2/24/2012	Gen Prep	12B189	3.7	1	111-46-6	DIETHYLENE GLYCOL	16	U	10.9	21.7	mg/kg	U			-118.7083	34.2353203
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8015M	2/24/2012	Gen Prep	12B189	3.7	1	57-55-6	Propylene glycol	10	U	11.9	23.9	mg/kg	U			-118.7083	34.2353203
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11096-82-5	Aroclor 1260	6.3	U	9.96	19.9	ug/kg	U			-118.7083	34.2353203
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11097-69-1	Aroclor 1254	6.3	U	0.0996	0.199	ug/kg	U			-118.7083	34.2353203
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11100-14-4	Aroclor 1268	6.3	U	0.996	1.99	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11104-28-2	Aroclor 1221	6.3	U	4.98	9.96	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11126-42-4	Aroclor 5460	12	U	0.249	0.498	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	11141-16-5	Aroclor 1232	6.3	U	0.0498	0.0996	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	12642-23-8	Aroclor 5442	12	U	0.199	0.398	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	12672-29-6	Aroclor 1248	6.3	U	29.9	59.7	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	12674-11-2	Aroclor 1016	6.3	U	0.0498	0.0996	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	37324-23-5	Aroclor 1262	6.3	U	0.249	0.498	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	53469-21-9	Aroclor 1242	6.3	U	0.0498	0.0996	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8082	2/25/2012	3550B	12B189	0	3.7	63496-31-1	Aroclor 5432	12	U	4.98	9.96	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	100-01-6	4-NITROANILINE	170	U	0.0996	0.199	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	100-02-7	4-NITROPHENOL	350	U	0.199	0.398	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	100-51-6	BENZYL ALCOHOL	170	U	0.199	0.398	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	170	U	0.0498	0.0996	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	105-67-9	2,4-DIMETHYLPHENOL	170	U	2.49	4.98	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	106-44-5	4-METHYLPHENOL	170	U	0.0498	0.0996	ug/kg	U			-118.70844	34.2352597
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	106-46-7	1,4-DICHLOROBENZENE	170	U	0.199	0.398	ug/kg	U			-118.70836	34.2352494
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	106-47-8	4-CHLOROANILINE	170	U	0.0498	0.0996	ug/kg	U			-118.70836	34.2352494
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	108-68-9	3,5-Dimethylphenol	170	U	0.199	0.398	ug/kg	U			-118.70836	34.2352494
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	108-95-2	PHENOL	170	U	0.0498	0.0996	ug/kg	U			-118.70836	34.2352494
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	170	U	0.0329	1.11	ug/kg	U			-118.70836	34.2352494
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	111-76-2	2-butoxy-Ethanol	170	U	0.0316	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	170	U	0.0285	11.1	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	118-74-1	HEXACHLOROBENZENE	170	U	0.0447	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	119-64-2	Tetralin	170	U	0.0335	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	120-82-1	1,2,4-Trichlorobenzene	170	U	0.0324	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	120-83-2	2,4-DICHLOROPHENOL	170	U	0.0345	1.11	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	121-14-2	2,4-DINITROTOLUENE	170	U	0.0246	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	170	U	0.0187	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	122-99-6	2-phenoxy-Ethanol	170	U	0.0179	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	132-64-9	DIBENZOFURAN	170	U	0.0180	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	170	U	0.0205	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	51-28-5	2,4-DINITROPHENOL	350	U	0.0204	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	350	U	0.0233	5.53	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	541-73-1	1,3-DICHLOROBENZENE	170	U	0.0342	1.10	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	59-50-7	4-CHLORO-3-METHYLPHENOL	170	U	0.0264	5.52	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	606-20-2	2,6-DINITROTOLUENE	170	U	0.0199	11.0	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	62-53-3	ANILINE	350	U	0.0288	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	170	U	0.0240	11.0	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	65-85-0	BENZOIC ACID	690	U	0.0266	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	67-72-1	HEXACHLOROETHANE	170	U	0.0327	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	170	U	0.0327	1.10	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	170	U	0.0183	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	78-59-1	ISOPHORONE	170	U	0.0167	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	86-30-6	N-NITROSODIPHENYLAMINE	170	U	0.0167	5.52	ug/kg	U			-118.71163	34.233596
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	86-74-8	CARBAZOLE	170	U	0.0185	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	87-68-3	HEXACHLOROBUTADIENE	170	U	0.0275	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	87-86-5	PENTACHLOROPHENOL	350	U	0.0192	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	88-06-2	2,4,6-TRICHLOROPHENOL	170	U	0.0120	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	88-74-4	2-NITROANILINE	170	U	0.0208	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	88-75-5	2-NITROPHENOL	170	U	0.0225	5.52	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	91-58-7	2-CHLORONAPHTHALENE	170	U	0.0330	1.12	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	91-94-1	3,3'-DICHLOROBENZIDINE	170	U	0.0272	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	92-87-5	BENZIDINE	860	U	0.0242	11.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	95-48-7	2-METHYLPHENOL	170	U	0.0344	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	95-50-1	1,2-Dichlorobenzene	170	U	0.0275	11.2	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	95-57-8	2-CHLOROPHENOL	170	U	0.0287	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	95-95-4	2,4,5-TRICHLOROPHENOL	170	U	0.0309	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	98-95-3	NITROBENZENE	170	U	0.0346	1.12	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C	2/27/2012	3550B	12B189	3.7	1	99-09-2	3-NITROANILINE	170	U	0.0221	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	17	U	0.0182	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	117-84-0	Di-n-octylphthalate	17	U	0.0178	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	120-12-7	ANTHRACENE	1.8	U	0.0189	5.58	ug/kg	U			-118.7116	34.2336237
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	129-00-0	PYRENE	1.8	U	0.0306	5.58	ug/kg	U			-118.70844	34.2352039
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	131-11-3	Dimethylphthalate	17	U	0.0209	5.58	ug/kg	U			-118.70844	34.2352039
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	0.0217	5.58	ug/kg	U			-118.70844	34.2352039
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	0.0252	5.58	ug/kg	U			-118.70844	34.2352039
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	U	0.0257	1.06	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	206-44-0	FLUORANTHENE	1.8	U	0.0228	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U	0.0188	10.6	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.0223	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	218-01-9	CHRYSENE	1.8	U	0.0181	10.6	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	50-32-8	BENZO(A)PYRENE	1.8	U	0.0252	1.06	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	0.0163	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	0.0129	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U	0.0140	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	83-32-9	ACENAPHTHENE	1.8	U	0.0145	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	84-66-2	Diethylphthalate	17	U	0.0244	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	84-74-2	Di-n-butylphthalate	17	U	0.0145	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	85-01-8	PHENANTHRENE	1.8	U	0.0138	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	85-68-7	Butylbenzylphthalate	17	U	0.0156	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	86-73-7	FLUORENE	1.8	U	0.0160	5.32	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.0273	1.07	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	91-20-3	NAPHTHALENE	1.8	U	0.0199	5.35	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	8270C SIM	2/27/2012	3550B	12B189	3.7	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.0193	10.7	ug/kg	U			-118.71164	34.2336075
SL-188-SA7-SB-22.0-23.0	2/21/2012	N	22	23	ft bgs	SO	DeepBoring	B189-06	EMXT	9045D	2/22/2012	Gen Prep	12B189	3.7	1	pH	PH	8.06		0.0209	5.35	pH unit	0.1			-118.71164	34.2336075

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-188-SA7-SB-22.5	2/21/2012	N	22.5	22.5	ft bgs	SO	DeepBoring	B189-05	EMXT	8015B GRO	2/23/2012	5035	12B189	3.4	0.99	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.0191	5.35	mg/kg	U			-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	160.3M	2/29/2012	Gen Prep	DE293	9.6	1	MOIST	MOISTURE	9.6		0.0214	5.35	%				-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	1625C	3/5/2012	3546	DE293	9.6	10	62-75-9	N-NITROSODIMETHYLAMINE	368	UJ	0.0229	5.35	ng/kg	U	UJ	H	-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	8015B	2/24/2012	3550B	DE293	9.6	1	84-15-1	O-TERPHENYL	3.9	U	0.0127	5.35	mg/kg	U			-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	8015B	2/24/2012	3550B	DE293	9.6	1	92-06-8	m-Terphenyl	3.9	U	0.0109	5.35	mg/kg	U			-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	8015B	2/24/2012	3550B	DE293	9.6	1	92-94-4	p-Terphenyl	3.9	U	0.0110	5.35	mg/kg	U			-118.71164	34.2336075
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550046	LL	8315A	2/22/2012	METHOD	DE293	9.6	1	50-00-0	FORMALDEHYDE	3000	J	100	200	ug/kg	J	J	S, Z	-118.71164	34.2336075
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	160.3M	2/29/2012	Gen Prep	DE293	9.7	1	MOIST	MOISTURE	9.7		50	100	%				-118.71164	34.2336075
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	1625C	3/5/2012	3546	DE293	9.7	10	62-75-9	N-NITROSODIMETHYLAMINE	368	UJ	50	100	ng/kg	U	UJ	H	-118.71354	34.2323589
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	8015B	2/24/2012	3550B	DE293	9.7	1	84-15-1	O-TERPHENYL	3.9	U	50	100	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	8015B	2/24/2012	3550B	DE293	9.7	1	92-06-8	m-Terphenyl	3.9	U	50	100	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	8015B	2/24/2012	3550B	DE293	9.7	1	92-94-4	p-Terphenyl	3.9	U	50	100	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550048	LL	8315A	2/22/2012	METHOD	DE293	9.7	1	50-00-0	FORMALDEHYDE	3900	J	500	1000	ug/kg		J	S	-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	160.3M	2/29/2012	Gen Prep	DE293	11	1	MOIST	MOISTURE	11		500	1000	%				-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	1625C	3/5/2012	3546	DE293	11	1	62-75-9	N-NITROSODIMETHYLAMINE	37	UJ	0.1	0.1	ng/kg	U	UJ	H	-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	8015B	2/24/2012	3550B	DE293	11	1	84-15-1	O-TERPHENYL	3.9	U	0.48	0.97	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	8015B	2/24/2012	3550B	DE293	11	1	92-06-8	m-Terphenyl	3.9	U	0.98	4.9	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	8015B	2/24/2012	3550B	DE293	11	1	92-94-4	p-Terphenyl	3.9	U	0.98	4.9	mg/kg	U			-118.71354	34.2323589
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550047	LL	8315A	2/22/2012	METHOD	DE293	11	1	50-00-0	FORMALDEHYDE	3400	UJ	0.98	4.9	ug/kg	U	UJ	S	-118.71354	34.2323589
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550049	LL	160.3M	2/29/2012	Gen Prep	DE293	6.7	1	MOIST	MOISTURE	6.7		0.98	4.9	%				-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	88-74-4	2-NITROANILINE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	88-75-5	2-NITROPHENOL	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	91-58-7	2-CHLORONAPHTHALENE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U	4.9	9.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	92-87-5	BENZIDINE	910	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	95-48-7	2-METHYLPHENOL	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	95-50-1	1,2-Dichlorobenzene	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	95-57-8	2-CHLOROPHENOL	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	98-95-3	NITROBENZENE	180	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C	2/16/2012	3550B	12B146	9.0	1	99-09-2	3-NITROANILINE	180	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	117-84-0	Di-n-octylphthalate	18	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	120-12-7	ANTHRACENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	129-00-0	PYRENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	131-11-3	Dimethylphthalate	18	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	206-44-0	FLUORANTHENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	4.9	9.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	208-96-8	ACENAPHTHYLENE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	218-01-9	CHRYSENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	50-32-8	BENZO(A)PYRENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	62-75-9	N-NITROSODIMETHYLAMINE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	83-32-9	ACENAPHTHENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	84-66-2	Diethylphthalate	18	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	84-74-2	Di-n-butylphthalate	18	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	85-01-8	PHENANTHRENE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	85-68-7	Butylbenzylphthalate	18	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	86-73-7	FLUORENE	1.9	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	91-20-3	NAPHTHALENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8270C SIM	2/16/2012	3550B	12B146	9.0	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	118-96-7	2,4,6-TRINITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	121-14-2	2,4-DINITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	121-82-4	RDX	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	2691-41-0	HMX	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	100	U	4.9	9.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	479-45-8	Tetryl	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	606-20-2	2,6-DINITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	88-72-2	2-NITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	98-95-3	NITROBENZENE	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-08-1	3-NITROTOLUENE	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-35-4	1,3,5-Trinitrobenzene	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-65-0	1,3-DINITROBENZENE	100	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-99-0	4-NITROTOLUENE	100	U	2.0	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8332	2/24/2012	Gen Prep	12B146	0	1	55-63-0	Nitroglycerin	1000	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	8332	2/24/2012	Gen Prep	12B146	0	1	78-11-5	PETN	1000	U	0.98	4.9	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	9014	2/17/2012	Gen Prep	12B146	9.0	1	57-12-5	CYANIDE	0.549	U	0.98	4.9	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	B146-04	EMXT	9045D	2/16/2012	Gen Prep	12B146	9.0	1	pH	PH	8.79		5.3	11	pH unit	0.1			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03W	EMXT	8015B GRO	2/21/2012	5035	12B146	10.9	0.92	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.795	1.59	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	100-41-4	ETHYLBENZENE	4.9	U	0.530	1.06	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	100-42-5	STYRENE	4.9	U	10.6	21.2	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	10061-01-5	CIS-1,3-DICHLOROPROPENE	4.9	U	12.2	24.5	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	10061-02-6	TRANS-1,3-DICHLOROPROPENE	4.9	U	10.2	20.4	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	103-65-1	N-PROPYLBENZENE	4.9	U	0.102	0.204	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	104-51-8	N-BUTYLBENZENE	4.9	U	1.02	2.04	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-43-4	4-CHLOROTOLUENE	4.9	U	5.10	10.2	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-46-7	1,4-DICHLOROBENZENE	4.9	U	0.255	0.510	ug/kg	U			-118.71359	34.2323947

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-93-4	1,2-Dibromoethane (EDB)	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	107-06-2	1,2-Dichloroethane	4.9	U	0.204	0.408	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-10-1	4-METHYL-2-PENTANONE (MIBK)	9.8	U	30.6	61.2	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-67-8	1,3,5-Trimethylbenzene	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-86-1	BROMOBENZENE	4.9	U	51.0	102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-90-7	Chlorobenzene	4.9	U	0.255	0.510	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	110-75-8	2-CHLOROETHYL VINYL ETHER	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	120-82-1	1,2,4-Trichlorobenzene	4.9	U	5.10	10.2	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	124-48-1	DIBROMOCHLOROMETHANE	4.9	U	0.510	1.02	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	127-18-4	TETRACHLOROETHENE	4.9	U	0.102	0.204	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	135-98-8	SEC-BUTYLBENZENE	4.9	U	0.204	0.408	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	142-28-9	1,3-DICHLOROPROPANE	4.9	U	0.204	0.408	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	156-59-2	CIS-1,2-DICHLOROETHENE	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	156-60-5	TRANS-1,2-DICHLOROETHENE	4.9	U	2.55	5.10	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	179601-23-1	m,p-Xylene	4.9	U	0.0510	0.102	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	541-73-1	1,3-DICHLOROBENZENE	4.9	U	2.55	5.10	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	56-23-5	CARBON TETRACHLORIDE	4.9	U	10.2	20.4	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	563-58-6	1,1-Dichloropropene	4.9	U	6.12	12.2	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	591-78-6	2-HEXANONE	9.8	U	0.204	0.408	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	594-20-7	2,2-DICHLOROPROPANE	4.9	U	0.530	1.06	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	0.530	1.06	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	67-64-1	ACETONE	9.8	U	0.0527	0.105	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	67-66-3	CHLOROFORM	4.9	U	270	530	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	71-43-2	BENZENE	4.9	U	270	530	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	71-55-6	1,1,1-Trichloroethane	4.9	U	270	530	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-83-9	BROMOMETHANE	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-87-3	CHLOROMETHANE	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-95-3	DIBROMOMETHANE	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-97-5	BROMOCHLOROMETHANE	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-00-3	Chloroethane	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-01-4	VINYL CHLORIDE	4.9	U	0.53	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-09-2	METHYLENE CHLORIDE	4.9	U	5.3	11	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-25-2	BROMOFORM	4.9	U	8.0	16	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-27-4	BROMODICHLOROMETHANE	4.9	U	5.3	11	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-34-3	1,1-Dichloroethane	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-35-4	1,1-Dichloroethene	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-69-4	TRICHLOROFLUOROMETHANE	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-71-8	DICHLORODIFLUOROMETHANE	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-88-7	2-Chloro-1,1,1-trifluoroethane	4.9	U	1.8	3.5	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	78-87-5	1,2-Dichloropropane	4.9	U	1.8	3.5	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	78-93-3	2-BUTANONE (MEK)	9.8	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-00-5	1,1,2-Trichloroethane	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-01-6	TRICHLOROETHENE	4.9	U	0.90	1.8	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	2.51	5.03	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-38-9	Chlorotrifluoroethylene	4.9	U	0.0503	0.101	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	87-61-6	1,2,3-Trichlorobenzene	4.9	U	0.201	0.402	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	87-68-3	HEXACHLOROBUTADIENE	4.9	U	0.0503	0.101	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-47-6	O-XYLENE	4.9	U	0.201	0.402	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-49-8	2-CHLOROTOLUENE	4.9	U	0.0503	0.101	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-50-1	1,2-Dichlorobenzene	4.9	U	1.51	3.02	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-63-6	1,2,4-Trimethylbenzene	4.9	U	2.51	5.03	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U	10.1	20.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	96-18-4	1,2,3-Trichloropropane	4.9	U	6.03	12.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	98-06-6	TERT-BUTYLBENZENE	4.9	U	0.201	0.402	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	98-82-8	ISOPROPYLBENZENE	4.9	U	0.538	1.08	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	99-87-6	P-ISOPROPYLTOLUENE	4.9	U	0.538	1.08	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.5	2/15/2012	N	40.5	40.5	ft bgs	SO	DeepBoring	B146-03	EMXT	8260B SIM	2/17/2012	5035	12B146	10.9	0.85	123-91-1	1,4-DIOXANE	9.5	U	0.0536	0.107	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	300.0	2/16/2012	Gen Prep	12B146	11.3	1	14797-55-8	Nitrate-NO3	1.13	J	270	540	mg/kg	J	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	300.0	2/16/2012	Gen Prep	12B146	11.3	1	14797-65-0	Nitrite-NO2	1.69	U	270	540	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	300.0	2/16/2012	Gen Prep	12B146	11.3	1	16984-48-8	FLUORIDE	1.64		0.54	1.1	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	314.0	2/17/2012	Gen Prep	12B146	11.3	1	14797-73-0	PERCHLORATE	22.5	U	0.54	1.1	ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7429-90-5	ALUMINUM	9500		0.54	1.1	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-89-6	IRON	18300		0.54	1.1	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-92-1	LEAD	4.45		0.54	1.1	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-93-2	LITHIUM	27		0.54	1.1	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-95-4	MAGNESIUM	3970		5.4	11	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-96-5	MANGANESE	262		8.1	16	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7439-98-7	MOLYBDENUM	0.212		5.4	11	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-02-0	NICKEL	6.6		0.91	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-09-7	POTASSIUM	3280		0.91	1.8	mg/kg				-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-22-4	SILVER	0.11	U	0.91	1.8	mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-23-5	SODIUM	209		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	6020	2/24/2012	Gen Prep	12B146	11.3	0.976	7440-24-6	STRONTIUM	11.4		1.8	3.5	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015M	2/21/2012	Gen Prep	12B174	22.6	1	111-46-6	DIETHYLENE GLYCOL	19	U	0.91	1.8	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8015M	2/21/2012	Gen Prep	12B174	22.6	1	57-55-6	Propylene glycol	13	U	1.8	3.5	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11096-82-5	Aroclor 1260	2.2	U	0.91	1.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11097-69-1	Aroclor 1254	33	J	0.91	1.8	ug/kg		J	*#	-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11100-14-4	Aroclor 1268	2.2	U	0.91	1.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11104-28-2	Aroclor 1221	2.2	U	0.91	1.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11126-42-4	Aroclor 5460	6.4		1.8	3.5	ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	11141-16-5	Aroclor 1232	2.2	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	12642-23-8	Aroclor 5442	4.3	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	12672-29-6	Aroclor 1248	2.2	U	90	180	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	12674-11-2	Aroclor 1016	2.2	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	37324-23-5	Aroclor 1262	2.2	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	53469-21-9	Aroclor 1242	2.2	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8082	2/27/2012	3550B	12B174	22.6	1	63496-31-1	Aroclor 5432	4.3	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	118-96-7	2,4,6-TRINITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	121-14-2	2,4-DINITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	121-82-4	RDX	100	U	180	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	19406-51-0	4-AMINO-2,6-DINITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	2691-41-0	HMX	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	35572-78-2	2-AMINO-4,6-DINITROTOLUENE	100	U	180	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	479-45-8	Tetryl	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	606-20-2	2,6-DINITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U	180	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	88-72-2	2-NITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	98-95-3	NITROBENZENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-08-1	3-NITROTOLUENE	100	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-35-4	1,3,5-Trinitrobenzene	100	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-65-0	1,3-DINITROBENZENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8330A	2/24/2012	Gen Prep	12B174	0	1	99-99-0	4-NITROTOLUENE	100	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8332	2/24/2012	Gen Prep	12B174	0	1	55-63-0	Nitroglycerin	1000	U	180	360	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	8332	2/24/2012	Gen Prep	12B174	0	1	78-11-5	PETN	1000	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	9014	2/28/2012	Gen Prep	12B174	22.6	1	57-12-5	CYANIDE	0.646	U	360	720	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02	EMXT	9045D	2/17/2012	Gen Prep	12B174	22.6	1	pH	PH	11.55		90	180	pH unit	0.1			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	300.0	2/21/2012	Gen Prep	12B174	8.3	1	14797-55-8	Nitrate-NO3	1.64	U	90	180	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	300.0	2/21/2012	Gen Prep	12B174	8.3	1	14797-65-0	Nitrite-NO2	1.64	U	90	180	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	300.0	2/21/2012	Gen Prep	12B174	8.3	1	16984-48-8	FLUORIDE	6		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	314.0	2/24/2012	Gen Prep	12B174	8.3	1	14797-73-0	PERCHLORATE	21.8	U	90	180	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7429-90-5	ALUMINUM	10900	J	90	180	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-89-6	IRON	19500		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-92-1	LEAD	5.49	J	180	360	mg/kg		J	Q, E	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-93-2	LITHIUM	27.5		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-95-4	MAGNESIUM	5560		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-96-5	MANGANESE	268		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7439-98-7	MOLYBDENUM	1.01		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-02-0	NICKEL	9.22		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-09-7	POTASSIUM	3060		450	890	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-22-4	SILVER	0.109	U	90	180	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-23-5	SODIUM	386		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-24-6	STRONTIUM	10.3		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-28-0	THALLIUM	0.206		90	180	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-31-5	TIN	10.9	U	90	180	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-32-6	TITANIUM	791		9.0	18	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-36-0	ANTIMONY	0.217	UJ	9.0	18	mg/kg	U	UJ	Q	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-38-2	Arsenic	3.91		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-39-3	BARIUM	71.1	J	0.91	1.8	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-41-7	BERYLLIUM	0.951		9.0	18	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-42-8	BORON	5.43	UJ	0.91	1.8	mg/kg	U	UJ	E	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-43-9	CADMIUM	0.125		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-47-3	CHROMIUM	17.2		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-48-4	COBALT	4.87		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-50-8	COPPER	5.7		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-62-2	VANADIUM	26.7	J	0.91	1.8	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-66-6	ZINC	49.7		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-67-7	Zirconium	5.43	U	0.91	1.8	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7440-70-2	CALCIUM	2920	J	0.91	1.8	mg/kg		J	Q	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7723-14-0	PHOSPHORUS	356		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	6020	2/24/2012	Gen Prep	12B174	8.3	0.995	7782-49-2	SELENIUM	0.434	U	0.91	1.8	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04R	EMXT	7199	2/24/2012	Gen Prep	12B174	8.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.09	U	0.91	1.8	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	7199	2/24/2012	Gen Prep	12B174	8.3	1	18540-29-9	HEXAVALENT CHROMIUM	1.09	U	9.0	18	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	7471A	2/23/2012	7471A	12B174	8.3	0.987	7439-97-6	Mercury	0.108	U	9.0	18	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015B	2/22/2012	Gen Prep	12B174	8.3	1	64-17-5	ETHANOL	550	U	0.91	1.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015B	2/22/2012	Gen Prep	12B174	8.3	1	67-56-1	METHANOL	550	U	9.0	18	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015B	2/22/2012	Gen Prep	12B174	8.3	1	67-63-0	Isopropanol	550	U	0.91	1.8	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC12C14	EFH (C12-C14)	180		0.91	1.8	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC15C20	EFH (C15-C20)	220		0.1	0.1	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC21C30	EFH (C21-C30)	7.2		0.49	0.97	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC30C40	EFH (C30-C40)	5.5	U	1100	2200	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC8C11	EFH (C8-C11)	3.1	J	2200	4300	mg/kg	J	J	Z	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04I	EMXT	8015B EFH	2/24/2012	3550B	12B174	8.3	5	PHCC8C40	TOTAL EFH(C8-C40)	410		1100	2200	mg/kg				-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015M	2/21/2012	Gen Prep	12B174	8.3	1	107-21-1	ETHYLENE GLYCOL	11	U	1100	2200	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015M	2/21/2012	Gen Prep	12B174	8.3	1	111-46-6	DIETHYLENE GLYCOL	16	U	1100	2200	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8015M	2/21/2012	Gen Prep	12B174	8.3	1	57-55-6	Propylene glycol	11	U	1100	2200	mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11096-82-5	Aroclor 1260	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11097-69-1	Aroclor 1254	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11100-14-4	Aroclor 1268	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11104-28-2	Aroclor 1221	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11126-42-4	Aroclor 5460	3.6	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	11141-16-5	Aroclor 1232	1.9	U	2200	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	12642-23-8	Aroclor 5442	3.6	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	12672-29-6	Aroclor 1248	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	12674-11-2	Aroclor 1016	1.9	U	2200	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	37324-23-5	Aroclor 1262	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	53469-21-9	Aroclor 1242	1.9	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8082	2/24/2012	3550B	12B174	8.3	1	63496-31-1	Aroclor 5432	3.6	U	1100	2200	ug/kg	U			-118.70844	34.2352597

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	100-01-6	4-NITROANILINE	180	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	100-02-7	4-NITROPHENOL	360	U	1100	2200	ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	100-51-6	BENZYL ALCOHOL	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	105-67-9	2,4-DIMETHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	106-44-5	4-METHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	106-46-7	1,4-DICHLOROBENZENE	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	106-47-8	4-CHLOROANILINE	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	108-68-9	3,5-Dimethylphenol	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	108-95-2	PHENOL	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	111-76-2	2-butoxy-Ethanol	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	118-74-1	HEXACHLOROBENZENE	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	119-64-2	Tetralin	170	J			ug/kg		J	Z	-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	120-82-1	1,2,4-Trichlorobenzene	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	120-83-2	2,4-DICHLOROPHENOL	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	121-14-2	2,4-DINITROTOLUENE	180	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	122-99-6	2-phenoxy-Ethanol	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	132-64-9	DIBENZOFURAN	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	51-28-5	2,4-DINITROPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	541-73-1	1,3-DICHLOROBENZENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	606-20-2	2,6-DINITROTOLUENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	62-53-3	ANILINE	360	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	65-85-0	BENZOIC ACID	730	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	67-72-1	HEXACHLOROETHANE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	78-59-1	ISOPHORONE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	86-74-8	CARBAZOLE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	87-68-3	HEXACHLOROBUTADIENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	87-86-5	PENTACHLOROPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	88-74-4	2-NITROANILINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	88-75-5	2-NITROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	91-58-7	2-CHLORONAPHTHALENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-325-SA6-SB-26.0-27.0	2/17/2012	N	26	27	ft bgs	SO	DeepBoring	B174-04	EMXT	8270C	2/22/2012	3550B	12B174	8.3	1	92-87-5	BENZIDINE	910	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-62-2	VANADIUM	27.4				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-66-6	ZINC	57.4				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-67-7	Zirconium	4.73	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7440-70-2	CALCIUM	8060				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7723-14-0	PHOSPHORUS	349				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	6020	2/24/2012	Gen Prep	12B176	5.6	0.893	7782-49-2	SELENIUM	0.378	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02R	EMXT	7199	2/24/2012	Gen Prep	12B176	5.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.06	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	7199	2/24/2012	Gen Prep	12B176	5.6	1	18540-29-9	HEXAVALENT CHROMIUM	1.06	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	7471A	2/23/2012	7471A	12B176	5.6	1	7439-97-6	Mercury	0.106	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015B	2/22/2012	Gen Prep	12B176	5.6	1	64-17-5	ETHANOL	530	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015B	2/22/2012	Gen Prep	12B176	5.6	1	67-56-1	METHANOL	530	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015B	2/22/2012	Gen Prep	12B176	5.6	1	67-63-0	Isopropanol	530	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC12C14	EFH (C12-C14)	1.1	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC15C20	EFH (C15-C20)	1.1	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC21C30	EFH (C21-C30)	2.3				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC30C40	EFH (C30-C40)	1.5				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC8C11	EFH (C8-C11)	1.1	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02W	EMXT	8015B EFH	2/24/2012	3550B	12B176	5.6	1	PHCC8C40	TOTAL EFH(C8-C40)	3.8				mg/kg				-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015M	2/21/2012	Gen Prep	12B176	5.6	1	107-21-1	ETHYLENE GLYCOL	11	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015M	2/21/2012	Gen Prep	12B176	5.6	1	111-46-6	DIETHYLENE GLYCOL	16	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8015M	2/21/2012	Gen Prep	12B176	5.6	1	57-55-6	Propylene glycol	11	U			mg/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11096-82-5	Aroclor 1260	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11097-69-1	Aroclor 1254	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11100-14-4	Aroclor 1268	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11104-28-2	Aroclor 1221	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11126-42-4	Aroclor 5460	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	11141-16-5	Aroclor 1232	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	12642-23-8	Aroclor 5442	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	12672-29-6	Aroclor 1248	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	12674-11-2	Aroclor 1016	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	37324-23-5	Aroclor 1262	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	53469-21-9	Aroclor 1242	9.5	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8082	2/25/2012	3550B	12B176	0	5.6	63496-31-1	Aroclor 5432	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	100-01-6	4-NITROANILINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	100-02-7	4-NITROPHENOL	350	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	100-51-6	BENZYL ALCOHOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	105-67-9	2,4-DIMETHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	106-44-5	4-METHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	106-46-7	1,4-DICHLOROBENZENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	106-47-8	4-CHLOROANILINE	180	U			ug/kg	U			-118.70844	34.2352039

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	108-68-9	3,5-Dimethylphenol	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	108-95-2	PHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	111-76-2	2-butoxy-Ethanol	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	118-74-1	HEXACHLOROBENZENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	119-64-2	Tetralin	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	120-82-1	1,2,4-Trichlorobenzene	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	120-83-2	2,4-DICHLOROPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	121-14-2	2,4-DINITROTOLUENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	122-99-6	2-phenoxy-Ethanol	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	132-64-9	DIBENZOFURAN	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	51-28-5	2,4-DINITROPHENOL	350	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	350	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	541-73-1	1,3-DICHLOROBENZENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	606-20-2	2,6-DINITROTOLUENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	62-53-3	ANILINE	350	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	65-85-0	BENZOIC ACID	710	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	67-72-1	HEXACHLOROETHANE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	78-59-1	ISOPHORONE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	86-74-8	CARBAZOLE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	87-68-3	HEXACHLOROBUTADIENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	87-86-5	PENTACHLOROPHENOL	350	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	88-74-4	2-NITROANILINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	88-75-5	2-NITROPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	91-58-7	2-CHLORONAPHTHALENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	92-87-5	BENZIDINE	880	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	95-48-7	2-METHYLPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	95-50-1	1,2-Dichlorobenzene	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	95-57-8	2-CHLOROPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	98-95-3	NITROBENZENE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C	2/22/2012	3550B	12B176	5.6	1	99-09-2	3-NITROANILINE	180	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	117-84-0	Di-n-octylphthalate	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	120-12-7	ANTHRACENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	129-00-0	PYRENE	1.2	J			ug/kg	J	J	Z	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	131-11-3	Dimethylphthalate	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	205-99-2	BENZO(B)FLUORANTHENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	206-44-0	FLUORANTHENE	1.1	J			ug/kg	J	J	Z	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	208-96-8	ACENAPHTHYLENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	218-01-9	CHRYSENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	50-32-8	BENZO(A)PYRENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	83-32-9	ACENAPHTHENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	84-66-2	Diethylphthalate	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	84-74-2	Di-n-butylphthalate	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	85-01-8	PHENANTHRENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	85-68-7	Butylbenzylphthalate	18	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	86-73-7	FLUORENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	91-20-3	NAPHTHALENE	0.95	J			ug/kg	J	J	Z	-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	8270C SIM	2/22/2012	3550B	12B176	5.6	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U			ug/kg	U			-118.70844	34.2352039
SL-323-SA6-SB-23.0-24.0	2/20/2012	N	23	24	ft bgs	SO	DeepBoring	B176-02	EMXT	9045D	2/21/2012	Gen Prep	12B176	5.6	1	pH	PH	9.97				pH unit	0.1			-118.71164	34.2336075
SL-323-SA6-SB-23.5	2/20/2012	N	23.5	23.5	ft bgs	SO	DeepBoring	B176-01	EMXT	8015B GRO	2/22/2012	5035	12B176	5.6	0.99	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U			mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.9	1	14797-55-8	Nitrate-NO3	1.55	J			mg/kg	J	J	Z	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.9	1	14797-65-0	Nitrite-NO2	1.63	U			mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	300.0	2/24/2012	Gen Prep	12B189	7.9	1	16984-48-8	FLUORIDE	4.58				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	314.0	2/23/2012	Gen Prep	12B189	7.9	1	14797-73-0	PERCHLORATE	21.7	U			ug/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7429-90-5	ALUMINUM	8010	J			mg/kg		J	Q	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-89-6	IRON	15800				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-92-1	LEAD	3.2	J			mg/kg		J	Q, E	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-93-2	LITHIUM	18.1				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-95-4	MAGNESIUM	3120				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-96-5	MANGANESE	213				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7439-98-7	MOLYBDENUM	0.733				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-02-0	NICKEL	6.58				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-09-7	POTASSIUM	2450				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-22-4	SILVER	0.0996	U			mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-23-5	SODIUM	254				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-24-6	STRONTIUM	9.04				mg/kg				-118.71164	34.2336075

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-28-0	THALLIUM	0.282				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-31-5	TIN	9.96	U			mg/kg	U			-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-32-6	TITANIUM	826				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-36-0	ANTIMONY	0.11	J			mg/kg	J	J	Q, Z	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-38-2	Arsenic	3.86				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-39-3	BARIUM	57.9	J			mg/kg		J	Q	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-41-7	BERYLLIUM	0.364				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-42-8	BORON	4.98	UJ			mg/kg	U	UJ	E	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-43-9	CADMIUM	0.082	J			mg/kg	J	J	Z	-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-47-3	CHROMIUM	11.4				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-48-4	COBALT	3.02				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-50-8	COPPER	4.63				mg/kg				-118.71164	34.2336075
DUP10-SA7-QC-022112FD	2/21/2012	FD	27	28	ft bgs	SO	DeepBoring	B189-07	EMXT	6020	2/24/2012	Gen Prep	12B189	7.9	0.917	7440-62-2	VANADIUM	21.1	J			mg/kg		J	Q	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	1746-01-6	2,3,7,8-TCDD	0.0363	J			ng/kg	JQ	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	3268-87-9	OCDD	145				ng/kg	B			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	10.4				ng/kg	B			-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	39001-02-0	OCDF	2.39	J			ng/kg	JB	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.53	U			ng/kg	JBQ	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	40321-76-4	1,2,3,7,8-PECDD	5.53	U			ng/kg	JBQ	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	51207-31-9	2,3,7,8-TCDF	0.0447	J			ng/kg	JQ	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.53	U			ng/kg	JBQ	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	57117-31-4	2,3,4,7,8-PECDF	5.53	U			ng/kg	JBQ	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	57117-41-6	1,2,3,7,8-PECDF	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	57653-85-7	1,2,3,6,7,8-HXCDD	0.342	J			ng/kg	JBQ	J	Z	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.53	U			ng/kg	JB	U	B	-118.71354	34.2323589
SL-146-SA5C-SB-47.5-48.5	2/13/2012	N	47.5	48.5	ft bgs	SO	DeepBoring	6550052	LL	1613B	2/21/2012	METHOD	DX158	9.6	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.53	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	1746-01-6	2,3,7,8-TCDD	1.1	U			ng/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	3268-87-9	OCDD	30.7				ng/kg	B			-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	3.74	J			ng/kg	JB	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	39001-02-0	OCDF	11	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.52	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	40321-76-4	1,2,3,7,8-PECDD	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	51207-31-9	2,3,7,8-TCDF	0.0455	J			ng/kg	JQ	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	57117-31-4	2,3,4,7,8-PECDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	57117-41-6	1,2,3,7,8-PECDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.52	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.52	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.52	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-40.0-41.0	2/15/2012	N	40	41	ft bgs	SO	DeepBoring	6550054	LL	1613B	2/21/2012	METHOD	DX158	9.7	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.52	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	1746-01-6	2,3,7,8-TCDD	1.12	U			ng/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	3268-87-9	OCDD	43.2				ng/kg	B			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	4.5	J			ng/kg	JB	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	39001-02-0	OCDF	1.2	J			ng/kg	JB	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	40321-76-4	1,2,3,7,8-PECDD	5.58	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	51207-31-9	2,3,7,8-TCDF	0.0393	J			ng/kg	J	J	Z	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.58	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	57117-31-4	2,3,4,7,8-PECDF	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	57117-41-6	1,2,3,7,8-PECDF	5.58	U			ng/kg	JBQ	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.58	U			ng/kg	JB	U	B	-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	6550053	LL	1613B	2/21/2012	METHOD	DX158	11	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.58	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	1746-01-6	2,3,7,8-TCDD	1.06	U			ng/kg	U			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	3268-87-9	OCDD	33.1				ng/kg	B			-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	3.62	J			ng/kg	JB	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	39001-02-0	OCDF	10.6	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.32	U			ng/kg	JBQ	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	40321-76-4	1,2,3,7,8-PECDD	5.32	U			ng/kg	JBQ	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	51207-31-9	2,3,7,8-TCDF	0.0368	J			ng/kg	JQ	J	Z	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	57117-31-4	2,3,4,7,8-PECDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	57117-41-6	1,2,3,7,8-PECDF	5.32	U			ng/kg	JBQ	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.32	U			ng/kg	JB	U	B	-118.7136	34.2323317
SL-148-SA5C-SB-40.0-41.0	2/14/2012	N	40	41	ft bgs	SO	DeepBoring	6550055	LL	1613B	2/21/2012	METHOD	DX158	6.7	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.32	U			ng/kg	JB	U	B	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	1746-01-6	2,3,7,8-TCDD	1.07	UJ			ng/kg	U	UJ	FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	19408-74-3	1,2,3,7,8,9-HXCDD	5.35	UJ			ng/kg	U	UJ	FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	3268-87-9	OCDD	10.7	U			ng/kg	JB	U	B	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	35822-46-9	1,2,3,4,6,7,8-HPCDD	5.35	U			ng/kg	JBQ	U	B	-118.71164	34.2336075

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reportin g Detection Limit	Reportin g Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	39001-02-0	OCDF	10.7	U			ng/kg	JBQ	U	B	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	39227-28-6	1,2,3,4,7,8-HxCDD	5.35	UJ			ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	40321-76-4	1,2,3,7,8-PECDD	5.35	UJ			ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	51207-31-9	2,3,7,8-TCDF	1.07	UJ			ng/kg	JB	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.35	U			ng/kg	JB	U	B	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	57117-31-4	2,3,4,7,8-PECDF	5.35	UJ			ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	57117-41-6	1,2,3,7,8-PECDF	5.35	UJ			ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.35	UJ			ng/kg	JB	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	57653-85-7	1,2,3,6,7,8-HXCDD	5.35	UJ			ng/kg	JBQ	UJ	B, FD	-118.71164	34.2336075
SL-186-SA7-SB-27.0-28.0	2/21/2012	N	27	28	ft bgs	SO	DeepBoring	6556492	LL	1613B	2/28/2012	METHOD	DX158	6.6	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.35	U			ng/kg	JBQ	U	B	-118.71164	34.2336075
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	59229-75-3	2,6-Diamino-4-nitrotoluene	200	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	606-20-2	2,6-DINITROTOLUENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	6629-29-4	2,4-DIAMINO-6-NITROTOLUENE	200	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	88-72-2	2-NITROTOLUENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	98-95-3	NITROBENZENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-08-1	3-NITROTOLUENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-35-4	1,3,5-Trinitrobenzene	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-65-0	1,3-DINITROBENZENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8330A	2/23/2012	Gen Prep	12B146	0	1	99-99-0	4-NITROTOLUENE	100	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8332	2/24/2012	Gen Prep	12B146	0	1	55-63-0	Nitroglycerin	1000	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	8332	2/24/2012	Gen Prep	12B146	0	1	78-11-5	PETN	1000	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	9014	2/17/2012	Gen Prep	12B146	11.3	1	57-12-5	CYANIDE	0.564	U			mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.0-56.0	2/15/2012	N	55	56	ft bgs	SO	DeepBoring	B146-02	EMXT	9045D	2/16/2012	Gen Prep	12B146	11.3	1	pH	PH	8.71				pH unit	0.1			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01W	EMXT	8015B GRO	2/21/2012	5035	12B146	10.9	0.86	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.97	U			mg/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	100-41-4	ETHYLBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	100-42-5	STYRENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	10061-01-5	CIS-1,3-DICHLOROPROPENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	10061-02-6	TRANS-1,3-DICHLOROPROPENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	103-65-1	N-PROPYLBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	104-51-8	N-BUTYLBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-43-4	4-CHLOROTOLUENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-46-7	1,4-DICHLOROBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	106-93-4	1,2-Dibromoethane (EDB)	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	107-06-2	1,2-Dichloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-10-1	4-METHYL-2-PENTANONE (MIBK)	9.8	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-67-8	1,3,5-Trimethylbenzene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-86-1	BROMOBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-88-3	TOLUENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	108-90-7	Chlorobenzene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	110-75-8	2-CHLOROETHYL VINYL ETHER	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	120-82-1	1,2,4-Trichlorobenzene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	124-48-1	DIBROMOCHLOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	127-18-4	TETRACHLOROETHENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	135-98-8	SEC-BUTYLBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	142-28-9	1,3-DICHLOROPROPANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	156-59-2	CIS-1,2-DICHLOROETHENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	156-60-5	TRANS-1,2-DICHLOROETHENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	1634-04-4	METHYL TERT-BUTYL ETHER (MTBE)	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	179601-23-1	m,p-Xylene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	541-73-1	1,3-DICHLOROBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	56-23-5	CARBON TETRACHLORIDE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	563-58-6	1,1-Dichloropropene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	591-78-6	2-HEXANONE	9.8	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	594-20-7	2,2-DICHLOROPROPANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	630-20-6	1,1,1,2-Tetrachloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	67-64-1	ACETONE	9.8	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	67-66-3	CHLOROFORM	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	71-43-2	BENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	71-55-6	1,1,1-Trichloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-83-9	BROMOMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-87-3	CHLOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-95-3	DIBROMOMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	74-97-5	BROMOCHLOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-00-3	Chloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-01-4	VINYL CHLORIDE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-09-2	METHYLENE CHLORIDE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-25-2	BROMOFORM	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-27-4	BROMODICHLOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-34-3	1,1-Dichloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-35-4	1,1-Dichloroethene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-69-4	TRICHLOROFLUOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-71-8	DICHLORODIFLUOROMETHANE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	75-88-7	2-Chloro-1,1,1-trifluoroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	78-87-5	1,2-Dichloropropane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	78-93-3	2-BUTANONE (MEK)	9.8	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-00-5	1,1,2-Trichloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-01-6	TRICHLOROETHENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-34-5	1,1,2,2-Tetrachloroethane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	79-38-9	Chlorotrifluoroethylene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	87-61-6	1,2,3-Trichlorobenzene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	87-68-3	HEXACHLOROBUTADIENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-47-6	O-XYLENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-49-8	2-CHLOROTOLUENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-50-1	1,2-Dichlorobenzene	4.9	U			ug/kg	U			-118.71359	34.2323947

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	95-63-6	1,2,4-Trimethylbenzene	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	96-18-4	1,2,3-Trichloropropane	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	98-06-6	TERT-BUTYLBENZENE	4.9	U			ug/kg	U			-118.71359	34.2323947
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	98-82-8	ISOPROPYLBENZENE	4.9	U			ug/kg	U			-118.7089	34.2338052
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B	2/21/2012	5035	12B146	10.9	0.87	99-87-6	P-ISOPROPYLTOLUENE	4.9	U			ug/kg	U			-118.7089	34.2338052
SL-147-SA5C-SB-55.5	2/15/2012	N	55.5	55.5	ft bgs	SO	DeepBoring	B146-01	EMXT	8260B SIM	2/17/2012	5035	12B146	10.9	0.95	123-91-1	1,4-DIOXANE	11	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	300.0	2/16/2012	Gen Prep	12B146	5.7	1	14797-55-8	Nitrate-NO3	2.14				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	300.0	2/16/2012	Gen Prep	12B146	5.7	1	14797-65-0	Nitrite-NO2	1.59	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	300.0	2/16/2012	Gen Prep	12B146	5.7	1	16984-48-8	FLUORIDE	2.24				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	314.0	2/17/2012	Gen Prep	12B146	5.7	1	14797-73-0	PERCHLORATE	21.2	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7429-90-5	ALUMINUM	10100				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-89-6	IRON	18700				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-92-1	LEAD	3.57				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-93-2	LITHIUM	23.2				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-95-4	MAGNESIUM	4340				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-96-5	MANGANESE	223				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7439-98-7	MOLYBDENUM	0.399				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-02-0	NICKEL	7.78				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-09-7	POTASSIUM	2430				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-22-4	SILVER	0.102	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-23-5	SODIUM	168				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-24-6	STRONTIUM	13.6				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-28-0	THALLIUM	0.242				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-31-5	TIN	10.2	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-32-6	TITANIUM	965				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-36-0	ANTIMONY	0.204	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-38-2	Arsenic	4.11				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-39-3	BARIUM	64.7				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-41-7	BERYLLIUM	0.439				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-42-8	BORON	5.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-43-9	CADMIUM	0.1	J			mg/kg	J	J	Z	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-47-3	CHROMIUM	13.6				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-48-4	COBALT	4.65				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-50-8	COPPER	5.53				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-62-2	VANADIUM	27.4				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-66-6	ZINC	52.1				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-67-7	Zirconium	5.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7440-70-2	CALCIUM	2430				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7723-14-0	PHOSPHORUS	375				mg/kg				-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	6020	2/24/2012	Gen Prep	12B146	5.7	0.962	7782-49-2	SELENIUM	0.408	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	7199	2/17/2012	Gen Prep	12B146	5.7	1	18540-29-9	HEXAVALENT CHROMIUM	1.06	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	7199	2/17/2012	Gen Prep	12B146	5.7	1	18540-29-9	HEXAVALENT CHROMIUM	1.06	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	7471A	2/21/2012	7471A	12B146	5.7	0.993	7439-97-6	Mercury	0.105	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015B	2/17/2012	Gen Prep	12B146	5.7	1	64-17-5	ETHANOL	530	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015B	2/17/2012	Gen Prep	12B146	5.7	1	67-56-1	METHANOL	530	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015B	2/17/2012	Gen Prep	12B146	5.7	1	67-63-0	Isopropanol	530	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC12C14	EFH (C12-C14)	1.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC15C20	EFH (C15-C20)	1.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC21C30	EFH (C21-C30)	1.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC30C40	EFH (C30-C40)	1.1	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC8C11	EFH (C8-C11)	1.1	U			mg/kg	J	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06R	EMXT	8015B EFH	2/17/2012	3550B	12B146	5.7	1	PHCC8C40	TOTAL EFH(C8-C40)	1.1	U			mg/kg	J	U	B	-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015M	2/21/2012	Gen Prep	12B146	5.7	1	107-21-1	ETHYLENE GLYCOL	11	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015M	2/21/2012	Gen Prep	12B146	5.7	1	111-46-6	DIETHYLENE GLYCOL	16	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8015M	2/21/2012	Gen Prep	12B146	5.7	1	57-55-6	Propylene glycol	11	U			mg/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11096-82-5	Aroclor 1260	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11097-69-1	Aroclor 1254	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11100-14-4	Aroclor 1268	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11104-28-2	Aroclor 1221	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11126-42-4	Aroclor 5460	3.5	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	11141-16-5	Aroclor 1232	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	12642-23-8	Aroclor 5442	3.5	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	12672-29-6	Aroclor 1248	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	12674-11-2	Aroclor 1016	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-261-SA5A-SB-8.5-9.5	2/15/2012	N	8.5	9.5	ft bgs	SO	DeepBoring	B146-06	EMXT	8082	2/18/2012	3550B	12B146	5.7	1	37324-23-5	Aroclor 1262	1.8	U			ug/kg	U			-118.7089	34.2338052
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-42-8	BORON	5.03	UJ			mg/kg	U	UJ	E	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-43-9	CADMIUM	0.102				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-47-3	CHROMIUM	14.2				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-48-4	COBALT	13.3				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-50-8	COPPER	9.48				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-62-2	VANADIUM	25.7	J			mg/kg		J	Q	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-66-6	ZINC	50.1				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-67-7	Zirconium	5.03	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7440-70-2	CALCIUM	5220	J			mg/kg		J	Q	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7723-14-0	PHOSPHORUS	376				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	6020	2/24/2012	Gen Prep	12B174	7.0	0.935	7782-49-2	SELENIUM	0.402	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06R	EMXT	7199	2/24/2012	Gen Prep	12B174	7.0	1	18540-29-9	HEXAVALENT CHROMIUM	1.08	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	7199	2/24/2012	Gen Prep	12B174	7.0	1	18540-29-9	HEXAVALENT CHROMIUM	1.08	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	7471A	2/23/2012	7471A	12B174	7.0	0.997	7439-97-6	Mercury	0.107	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015B	2/22/2012	Gen Prep	12B174	7.0	1	64-17-5	ETHANOL	540	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015B	2/22/2012	Gen Prep	12B174	7.0	1	67-56-1	METHANOL	540	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015B	2/22/2012	Gen Prep	12B174	7.0	1	67-63-0	Isopropanol	540	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC12C14	EFH (C12-C14)	0.94	J			mg/kg	J	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC15C20	EFH (C15-C20)	2.9				mg/kg				-118.70836	34.2352494

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC21C30	EFH (C21-C30)	14				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC30C40	EFH (C30-C40)	7				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC8C11	EFH (C8-C11)	2.2				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06W	EMXT	8015B EFH	2/24/2012	3550B	12B174	7.0	1	PHCC8C40	TOTAL EFH(C8-C40)	27				mg/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015M	2/21/2012	Gen Prep	12B174	7.0	1	107-21-1	ETHYLENE GLYCOL	11	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015M	2/21/2012	Gen Prep	12B174	7.0	1	111-46-6	DIETHYLENE GLYCOL	16	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8015M	2/21/2012	Gen Prep	12B174	7.0	1	57-55-6	Propylene glycol	11	U			mg/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11096-82-5	Aroclor 1260	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11097-69-1	Aroclor 1254	3.9				ug/kg				-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11100-14-4	Aroclor 1268	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11104-28-2	Aroclor 1221	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11126-42-4	Aroclor 5460	2.5	J			ug/kg	J	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	11141-16-5	Aroclor 1232	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	12642-23-8	Aroclor 5442	3.5	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	12672-29-6	Aroclor 1248	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	12674-11-2	Aroclor 1016	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	37324-23-5	Aroclor 1262	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	53469-21-9	Aroclor 1242	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8082	2/25/2012	3550B	12B174	7.0	1	63496-31-1	Aroclor 5432	3.5	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	100-01-6	4-NITROANILINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	100-02-7	4-NITROPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	100-51-6	BENZYL ALCOHOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	101-55-3	4-BROMOPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	105-67-9	2,4-DIMETHYLPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	106-44-5	4-METHYLPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	106-46-7	1,4-DICHLOROBENZENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	106-47-8	4-CHLOROANILINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	108-68-9	3,5-Dimethylphenol	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	108-95-2	PHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	111-44-4	BIS(2-CHLOROETHYL) ETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	111-76-2	2-butoxy-Ethanol	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	111-91-1	BIS(2-CHLOROETHOXY)METHANE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	118-74-1	HEXACHLOROBENZENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	119-64-2	Tetralin	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	120-82-1	1,2,4-Trichlorobenzene	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	120-83-2	2,4-DICHLOROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	121-14-2	2,4-DINITROTOLUENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	122-66-7	1,2-Diphenylhydrazine/Azobenzene	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	122-99-6	2-phenoxy-Ethanol	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	132-64-9	DIBENZOFURAN	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	51-28-5	2,4-DINITROPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	534-52-1	4,6-DINITRO-2-METHYLPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	541-73-1	1,3-DICHLOROBENZENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	59-50-7	4-CHLORO-3-METHYLPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	606-20-2	2,6-DINITROTOLUENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	62-53-3	ANILINE	360	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	621-64-7	N-NITROSO-DI-N-PROPYLAMINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	65-85-0	BENZOIC ACID	720	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	67-72-1	HEXACHLOROETHANE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	77-47-4	HEXACHLOROCYCLOPENTADIENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	78-59-1	ISOPHORONE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	86-30-6	N-NITROSODIPHENYLAMINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	86-74-8	CARBAZOLE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	87-68-3	HEXACHLOROBUTADIENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	87-86-5	PENTACHLOROPHENOL	360	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	88-06-2	2,4,6-TRICHLOROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	88-74-4	2-NITROANILINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	88-75-5	2-NITROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	91-58-7	2-CHLORONAPHTHALENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	91-94-1	3,3'-DICHLOROBENZIDINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	92-87-5	BENZIDINE	890	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	95-48-7	2-METHYLPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	95-50-1	1,2-Dichlorobenzene	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	95-57-8	2-CHLOROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	95-95-4	2,4,5-TRICHLOROPHENOL	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	98-95-3	NITROBENZENE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C	2/22/2012	3550B	12B174	7.0	1	99-09-2	3-NITROANILINE	180	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	17	J			ug/kg	J	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	117-84-0	Di-n-octylphthalate	18	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	120-12-7	ANTHRACENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	129-00-0	PYRENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	131-11-3	Dimethylphthalate	18	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	205-99-2	BENZO(B)FLUORANTHENE	1.2	J			ug/kg	J	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	206-44-0	FLUORANTHENE	1	J			ug/kg	J	J	Z	-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	208-96-8	ACENAPHTHYLENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	218-01-9	CHRYSENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	50-32-8	BENZO(A)PYRENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	62-75-9	N-NITROSODIMETHYLAMINE	1.8	U			ug/kg	U			-118.70836	34.2352494

Deep Borehole Sample Results

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Prep Method	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	83-32-9	ACENAPHTHENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	84-66-2	Diethylphthalate	18	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	84-74-2	Di-n-butylphthalate	18	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	85-01-8	PHENANTHRENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	85-68-7	Butylbenzylphthalate	18	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	86-73-7	FLUORENE	1.8	U			ug/kg	U			-118.70836	34.2352494
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U			ug/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	91-20-3	NAPHTHALENE	1.8	U			ug/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	8270C SIM	2/22/2012	3550B	12B174	7.0	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U			ug/kg	U			-118.70844	34.2352597
SL-326-SA6-SB-23.0-24.0	2/17/2012	N	23	24	ft bgs	SO	DeepBoring	B174-06	EMXT	9045D	2/17/2012	Gen Prep	12B174	7.0	1	pH	PH	10.84				pH unit	0.1			-118.70844	34.2352597
SL-326-SA6-SB-23.5	2/16/2012	N	23.5	23.5	ft bgs	SO	DeepBoring	B174-05	EMXT	8015B GRO	2/22/2012	5035	12B174	6.3	0.91	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	0.97	U			mg/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	100-01-6	4-NITROANILINE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	100-02-7	4-NITROPHENOL	4300	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	100-51-6	BENZYL ALCOHOL	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	101-55-3	4-BROMOPHENYL-PHENYLETHER	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	105-67-9	2,4-DIMETHYLPHENOL	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	106-44-5	4-METHYLPHENOL	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	106-46-7	1,4-DICHLOROBENZENE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	106-47-8	4-CHLOROANILINE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	108-68-9	3,5-Dimethylphenol	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	108-95-2	PHENOL	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	111-44-4	BIS(2-CHLOROETHYL) ETHER	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	111-76-2	2-butoxy-Ethanol	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	111-91-1	BIS(2-CHLOROETHOXY)METHANE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	118-74-1	HEXACHLOROBENZENE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	119-64-2	Tetralin	480000				ug/kg				-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	120-82-1	1,2,4-Trichlorobenzene	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	120-83-2	2,4-DICHLOROPHENOL	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	121-14-2	2,4-DINITROTOLUENE	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	122-66-7	1,2-Diphenylhydrazine/Azobenzene	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	122-99-6	2-phenoxy-Ethanol	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	132-64-9	DIBENZOFURAN	2200	U			ug/kg	U			-118.70844	34.2352597
SL-325-SA6-SB-22.5-23.5	2/17/2012	N	22	23	ft bgs	SO	DeepBoring	B174-02T	EMXT	8270C	2/23/2012	3550B	12B174SV	22.6	10	39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	2200	U			ug/kg	U			-118.70844	34.2352597