280-36428-2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped:	11/29/2012	Contact Name:	Pam Hartman	COC No:	20121129-03
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1
AirbillNo:	794180289919			Lab:	Test America Knoxville
				Lab Phone:	865-291-3000
				Lab Address	5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-112912	11/29/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							pH 6 Rc/ind
EB2-112912	11/29/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	11/29/2012	1600	[signature]	11/30/12	1000						

1 cooler Rec'd @ 1.7°C
with custody seal intact
[initials] 11/30/12
1 cooler Fedx # 7941 8026 9919

1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	6B EB1-112912 1 of 2 Liters Broken in Shipment
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?		✓		☐ **6a** Leaking ☑ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 11/30/12

QA026R22.doc, 012811

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36428-2

Login Number: 36428

List Number: 1

Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	2 of 10 x 1 Liter Ambers recv'd broken for EB2-112912
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Friday, November 30, 2012 4:06 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36428, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the fifteen soil samples, two equipment blanks and one trip blank received at the laboratory on 11/30/12.

The samples were received in acceptable condition at temperatures of 5.6℃, 5.2℃, 5.4℃, 4.0℃, 3.0℃ , 5.6℃, 5.2℃, 5.0℃ (Denver) and 1.7℃ (Knoxville).

RECEIPT DISCREPANCIES:

1.) Two of the ten 1L Amber bottles for sample EB2-112912 (280-36428-28) were received at the Denver laboratory broken. Sufficient volume remains to proceed with the requested analyses.

2.) One of the two 1L Amber bottles for sample EB1-112912 (280-36428-27) was received at the Knoxville laboratory broken. Sufficient volume remains to proceed with the requested analyses.

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36428-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088438]
Attachments: 6

SAMPLE DELIVERY GROUP

280-36452-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36452-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/14/2012 10:33:10 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 6
Detection Summary 7
Method Summary 10
Sample Summary 11
Client Sample Results 12
QC Sample Results 21
QC Association 34
Chronicle 39
Chain of Custody 42
Receipt Checklists 43

Job ID: 280-36452-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36452-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Five soil samples and one trip blank were received under Chain of Custody on December 1, 2012. The samples were received in good condition at a temperature of 5.0°C.

One of the six 16oz. soil jars for sample SL-573-SA6-SB-3.0-4.0MS (280-36452-5) was received at the Denver laboratory broken. Sufficient volume remained to proceed with the requested analyses. The client was notified on December 3, 2012.

One of the two 40mL VOA vials submitted for sample TB-113012 (280-36452-1) contained an air bubble >6mm in size. The laboratory proceeded with the requested analysis using the uncompromised VOA vial. The client was notified on December 3, 2012.

SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that was homogenized. Prior to homogenization, sample volume required for the volatile analyses was logged as one distinct sample, while the volume requiring homogenization was logged with the same sample ID as a second laboratory sample.

The percent moisture analysis was performed on the homogenized sample volume, per project requirements. Data was uploaded from the homogenized moisture results to the associated non-homogenized samples per the project set-up to report the data on a dry weight basis.

Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The percent moisture result from the sample interval surrounding the encore sample has been applied to the TPH-GRO 8015B and/or VOCs 8260B results to report the data on a dry weight basis per project requirements and client instructions.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36452-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
No anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B
Matrix spikes were not requested for batch 280-150591. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch

Job ID: 280-36452-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

precision.

No anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
A low level of Total Petroleum Hydrocarbons (C8-C40) was detected in the method blank associated with prep batch 280-150232. The value should be considered an estimate, and has been flagged "J". Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a "B". Usability of the sample data is not compromised.

The MS/MSD analyses associated with prep batch 280-150232 were performed on sample SL-573-SA6-SB-3.0-4.0MS (280-36452-4), as requested. The MS/MSD exhibited the matrix spike duplicate (MSD) percent recovery outside the QC control limits for EFH (C21-C30). The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-151100 exhibited the %Difference (%D) value above the control limits. This is an indicator that data may be biased high. As no detectable concentrations of these compounds are present in the associated samples; corrective action is deemed unnecessary.

No other anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7471B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

Low levels of Iron and Tin were detected in the method 6010C blank associated with prep batch 280-150486. The values should be considered estimates, and have been flagged "J". Because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a "B". Usability of the sample data is not compromised.

A low level of Nickel was detected in the method 6020A blank associated with prep batch 280-150488. The value should be considered an estimate, and has been flagged "J". Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a "B". Usability of the sample data is not compromised.

The 6010C MS/MSD analyses associated with prep batch 280-150486 were performed on sample SL-573-SA6-SB-3.0-4.0MS (280-36452-5), as requested. The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron, Manganese and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Job ID: 280-36452-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

The 6020A MS/MSD analyses associated with prep batch 280-150488 were performed on sample SL-573-SA6-SB-3.0-4.0MS (280-36452-5), as requested. The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Client Sample ID: TB-113012 — Lab Sample ID: 280-36452-1

No Detections

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36452-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.34	J	11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.7	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.64	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.0015	J	0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	27		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	2.5	J	5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	16		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	42	B	4.3	0.73	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36452-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	2.0	J	9.3	0.94	mg/Kg	1	☼	6010C	Total/NA
Calcium	19000		48	14	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	33	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	35	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5000		9.6	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	470	0.096	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	580		9.6	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	4200	J	6100	39	mg/Kg	1	☼	6010C	Total/NA
Sodium	90	J	480	57	mg/Kg	1	☼	6010C	Total/NA
Strontium	160		0.47	0.035	mg/Kg	1	☼	6010C	Total/NA
Tin	1.2	J B	10	0.87	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		0.95	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	8.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.029	J	8.3	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.4	J	14	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	130	0.068	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.47	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.23	J	0.96	0.0090	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	35	0.073	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J	20	0.0064	mg/Kg	1	☼	6020A	Total/NA
Copper	8.7	J	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	5.8	J	33	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.40	J	5.1	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J B	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.66		0.63	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.038	J	0.76	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.44	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J	59	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	62	J	110	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.84		0.100	0.100	SU	1		9045D	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Client Sample ID: SL-573-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36452-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Temperature	21.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	2.2	J B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.7	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	1900		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	22	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4200		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	290		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3200	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.50	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	1.1	J B	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	960		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.6	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.020	J	8.9	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.9	J	15	0.052	mg/Kg	1	☼	6020A	Total/NA
Barium	99	J	140	0.072	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.54	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.25	J	1.0	0.0096	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	38	0.078	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.6	J	22	0.0068	mg/Kg	1	☼	6020A	Total/NA
Copper	8.9	J	30	0.073	mg/Kg	1	☼	6020A	Total/NA
Lead	4.5	J	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.43	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.66	J	0.67	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.036	J	0.81	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J	64	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	51	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.24		0.100	0.100	SU	1		9045D	Total/NA
Temperature	21.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-573-SA6-SB-3.5MS — Lab Sample ID: 280-36452-6

No Detections

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-7

Client Sample ID: SL-973-SA6-SB-3.0-4.0 (Continued) — Lab Sample ID: 280-36452-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.34	J	10	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	1.7	J B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.7	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4200		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	300		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3300	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	1.1	J B	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.8	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.020	J	8.1	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.9	J	14	0.047	mg/Kg	1	☼	6020A	Total/NA
Barium	90	J	130	0.066	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.46	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.24	J	0.93	0.0087	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J	34	0.071	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.4	J	20	0.0062	mg/Kg	1	☼	6020A	Total/NA
Copper	8.2	J	27	0.066	mg/Kg	1	☼	6020A	Total/NA
Lead	4.3	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	4.9	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J B	27	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.66		0.61	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.030	J	0.74	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.43	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	30	J	58	0.036	mg/Kg	1	☼	6020A	Total/NA
Zinc	51	J	100	0.29	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.06		0.100	0.100	SU	1		9045D	Total/NA
Temperature	21.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-973-SA6-SB-3.5 — Lab Sample ID: 280-36452-9

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36452-1	TB-113012	Water	11/30/12 08:00	12/01/12 09:00
280-36452-2	SL-573-SA6-SB-0.0-0.5	Solid	11/30/12 09:15	12/01/12 09:00
280-36452-3	SL-573-SA6-SB-0.0-0.5	Solid	11/30/12 09:15	12/01/12 09:00
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Solid	11/30/12 09:30	12/01/12 09:00
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Solid	11/30/12 09:30	12/01/12 09:00
280-36452-6	SL-573-SA6-SB-3.5MS	Solid	11/30/12 09:35	12/01/12 09:00
280-36452-7	SL-973-SA6-SB-3.0-4.0	Solid	11/30/12 09:40	12/01/12 09:00
280-36452-8	SL-973-SA6-SB-3.0-4.0	Solid	11/30/12 09:40	12/01/12 09:00
280-36452-9	SL-973-SA6-SB-3.5	Solid	11/30/12 09:45	12/01/12 09:00

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-2**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
2-Methylnaphthalene	**0.34**	**J**	11	0.33	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Anthracene	ND		11	0.77	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Benzo[a]anthracene	ND		11	0.97	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Benzo[a]pyrene	ND		11	0.79	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Chrysene	**1.5**	**J**	11	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Fluoranthene	**1.7**	**J**	11	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Naphthalene	**0.64**	**J**	11	0.35	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Phenanthrene	**1.5**	**J**	11	1.2	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 10:00	12/06/12 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*45 - 130*	*12/04/12 10:00*	*12/06/12 22:57*	*1*
Nitrobenzene-d5	*102*		*40 - 130*	*12/04/12 10:00*	*12/06/12 22:57*	*1*
Terphenyl-d14	*90*		*45 - 130*	*12/04/12 10:00*	*12/06/12 22:57*	*1*

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-4**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Benzo[a]anthracene	ND		10	0.91	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Benzo[a]pyrene	ND		10	0.75	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/06/12 23:23	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		45 - 130	12/04/12 10:00	12/06/12 23:23	1
Nitrobenzene-d5	78		40 - 130	12/04/12 10:00	12/06/12 23:23	1
Terphenyl-d14	74		45 - 130	12/04/12 10:00	12/06/12 23:23	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-7**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Naphthalene	**0.34**	**J**	10	0.33	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 10:00	12/10/12 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		45 - 130	12/04/12 10:00	12/10/12 23:37	1
Nitrobenzene-d5	76		40 - 130	12/04/12 10:00	12/10/12 23:37	1
Terphenyl-d14	84		45 - 130	12/04/12 10:00	12/10/12 23:37	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-2**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**0.0015**	**J**	0.0050	0.00074	ug/Kg			12/12/12 15:48	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-4**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/12/12 15:48	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-7**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/12/12 15:48	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: TB-113012 — **Lab Sample ID: 280-36452-1**
Date Collected: 11/30/12 08:00 — **Matrix: Water**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*82 - 110*		*12/05/12 18:15*	*1*

Client Sample ID: SL-573-SA6-SB-3.5MS — **Lab Sample ID: 280-36452-6**
Date Collected: 11/30/12 09:35 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.1	0.34	mg/Kg	☼	12/01/12 15:24	12/05/12 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*111*		*77 - 123*	*12/01/12 15:24*	*12/05/12 21:13*	*1*

Client Sample ID: SL-973-SA6-SB-3.5 — **Lab Sample ID: 280-36452-9**
Date Collected: 11/30/12 09:45 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.96	0.31	mg/Kg	☼	12/01/12 15:24	12/05/12 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*77 - 123*	*12/01/12 15:24*	*12/05/12 22:43*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-2**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**27**		11	1.1	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1
EFH (C15-C20)	**2.5**	**J**	5.4	1.1	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1
EFH (C21-C30)	**16**		5.4	1.1	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1
Total Petroleum Hydrocarbons (C8-C40)	**42**	**B**	4.3	0.73	mg/Kg	☼	12/03/12 21:45	12/05/12 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*108*		*49 - 115*	*12/03/12 21:45*	*12/05/12 22:57*	*1*

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-4**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1
EFH (C15-C20)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1
EFH (C21-C30)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1
Total Petroleum Hydrocarbons (C8-C40)	**2.2**	**J B**	4.0	0.68	mg/Kg	☼	12/03/12 21:45	12/05/12 23:22	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98		49 - 115	12/03/12 21:45	12/05/12 23:22	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-7**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1
EFH (C15-C20)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1
EFH (C21-C30)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1
Total Petroleum Hydrocarbons (C8-C40)	**1.7**	**J B**	4.0	0.68	mg/Kg	☼	12/03/12 21:45	12/06/12 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98		49 - 115	12/03/12 21:45	12/06/12 00:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1221	ND		35	16	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1232	ND		18	5.4	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1242	ND		18	9.5	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1248	ND		18	5.9	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1254	ND		18	5.8	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 1268	ND		35	4.1	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 5442	ND		52	34	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/04/12 13:15	12/07/12 22:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		45 - 120	12/04/12 13:15	12/07/12 22:58	1
Tetrachloro-m-xylene	102		45 - 120	12/04/12 13:15	12/07/12 22:58	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 5432	ND		51	16	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/04/12 13:15	12/07/12 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*89*		*45 - 120*	*12/04/12 13:15*	*12/07/12 23:19*	*1*
Tetrachloro-m-xylene	*85*		*45 - 120*	*12/04/12 13:15*	*12/07/12 23:19*	*1*

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-8**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 1268	ND		34	4.0	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/04/12 13:15	12/08/12 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*45 - 120*	*12/04/12 13:15*	*12/08/12 01:06*	*1*
Tetrachloro-m-xylene	*95*		*45 - 120*	*12/04/12 13:15*	*12/08/12 01:06*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12000**	**J**	19000	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Boron	**2.0**	**J**	9.3	0.94	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Calcium	**19000**		48	14	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Iron	**17000**	**B**	33	3.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Lithium	**24**	**J**	35	0.29	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Magnesium	**5000**		9.6	3.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Manganese	**300**	**J**	470	0.096	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Phosphorus	**580**		9.6	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Potassium	**4200**	**J**	6100	39	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Sodium	**90**	**J**	480	57	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Strontium	**160**		0.47	0.035	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Tin	**1.2**	**J B**	10	0.87	mg/Kg	☼	12/05/12 13:00	12/06/12 11:06	1
Titanium	**1000**		0.95	0.13	mg/Kg	☼	12/05/12 13:00	12/07/12 18:29	1
Zirconium	**1.4**	**J**	8.2	0.34	mg/Kg	☼	12/05/12 13:00	12/07/12 18:29	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	20000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Boron	1.7	J	9.9	1.0	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Calcium	1900		51	14	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Iron	17000	B	35	3.9	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Lithium	22	J	38	0.31	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Magnesium	4200		10	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Manganese	310	J	500	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Phosphorus	290		10	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Potassium	3200	J	6500	42	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Sodium	130	J	510	60	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Strontium	17		0.50	0.037	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Tin	1.1	J B	11	0.93	mg/Kg	☼	12/05/12 13:00	12/06/12 11:08	1
Titanium	960		1.0	0.14	mg/Kg	☼	12/05/12 13:00	12/07/12 18:31	1
Zirconium	1.6	J	8.8	0.36	mg/Kg	☼	12/05/12 13:00	12/07/12 18:31	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-8**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	20000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Boron	1.7	J	9.9	1.0	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Calcium	2100		51	14	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Iron	17000	B	35	3.9	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Lithium	21	J	38	0.31	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Magnesium	4200		10	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Manganese	310	J	510	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Phosphorus	300		10	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Potassium	3300	J	6600	42	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Sodium	120	J	510	60	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Strontium	16		0.51	0.037	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Tin	1.1	J B	11	0.93	mg/Kg	☼	12/05/12 13:00	12/06/12 11:20	1
Titanium	1000		1.0	0.14	mg/Kg	☼	12/05/12 13:00	12/07/12 18:54	1
Zirconium	1.8	J	8.8	0.36	mg/Kg	☼	12/05/12 13:00	12/07/12 18:54	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.029	J	8.3	0.013	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Arsenic	3.4	J	14	0.049	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Barium	100	J	130	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Beryllium	0.47	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Cadmium	0.23	J	0.96	0.0090	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Chromium	17	J	35	0.073	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Cobalt	5.7	J	20	0.0064	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Copper	8.7	J	28	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Lead	5.8	J	33	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Molybdenum	0.40	J	5.1	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	11	J B	28	0.024	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Selenium	0.66		0.63	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Silver	0.038	J	0.76	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Thallium	0.27	J	0.44	0.0034	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Vanadium	31	J	59	0.037	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1
Zinc	62	J	110	0.30	mg/Kg	☼	12/05/12 13:00	12/05/12 22:00	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	J	8.9	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Arsenic	2.9	J	15	0.052	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Barium	99	J	140	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Beryllium	0.54	J	1.1	0.023	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Cadmium	0.25	J	1.0	0.0096	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Chromium	17	J	38	0.078	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Cobalt	5.6	J	22	0.0068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Copper	8.9	J	30	0.073	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Lead	4.5	J	35	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Molybdenum	0.43	J	5.4	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Nickel	12	J B	30	0.026	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Selenium	0.66	J	0.67	0.14	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Silver	0.036	J	0.81	0.021	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Thallium	0.27	J	0.47	0.0036	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Vanadium	31	J	64	0.040	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1
Zinc	51	J	110	0.32	mg/Kg	☼	12/05/12 13:00	12/05/12 22:03	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-8**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	J	8.1	0.013	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Arsenic	2.9	J	14	0.047	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Barium	90	J	130	0.066	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Beryllium	0.46	J	1.0	0.021	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Cadmium	0.24	J	0.93	0.0087	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Chromium	16	J	34	0.071	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Cobalt	5.4	J	20	0.0062	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Copper	8.2	J	27	0.066	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Lead	4.3	J	32	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Molybdenum	0.41	J	4.9	0.016	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Nickel	11	J B	27	0.024	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Selenium	0.66		0.61	0.12	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Silver	0.030	J	0.74	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Thallium	0.27	J	0.43	0.0033	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Vanadium	30	J	58	0.036	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1
Zinc	51	J	100	0.29	mg/Kg	☼	12/05/12 13:00	12/05/12 22:18	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.025	0.0068	mg/Kg	☼	12/07/12 12:10	12/07/12 16:13	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0063	mg/Kg	☼	12/07/12 12:10	12/07/12 16:16	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36452-8**
Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0066	mg/Kg	☼	12/07/12 12:10	12/07/12 16:23	1

General Chemistry

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-2**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10	0.10	%			12/07/12 11:44	1

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36452-3**
Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.84		0.100	0.100	SU			12/08/12 13:17	1
Temperature	21.1		1.00	1.00	Degrees C			12/08/12 13:17	1
Percent Moisture	10		0.10	0.10	%			12/06/12 08:16	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-4**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.7		0.10	0.10	%			12/07/12 11:44	1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36452-5**
Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.24		0.100	0.100	SU			12/08/12 13:20	1
Temperature	21.5		1.00	1.00	Degrees C			12/08/12 13:20	1
Percent Moisture	3.7		0.10	0.10	%			12/06/12 08:16	1

Client Sample ID: SL-573-SA6-SB-3.5MS — **Lab Sample ID: 280-36452-6**
Date Collected: 11/30/12 09:35 — **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.7		0.10	0.10	%			12/07/12 11:46	1

General Chemistry

Client Sample ID: SL-973-SA6-SB-3.0-4.0 **Lab Sample ID: 280-36452-7**
Date Collected: 11/30/12 09:40 **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.3		0.10	0.10	%			12/07/12 11:44	1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 **Lab Sample ID: 280-36452-8**
Date Collected: 11/30/12 09:40 **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.06		0.100	0.100	SU			12/08/12 13:21	1
Temperature	21.5		1.00	1.00	Degrees C			12/08/12 13:21	1
Percent Moisture	3.3		0.10	0.10	%			12/06/12 08:16	1

Client Sample ID: SL-973-SA6-SB-3.5 **Lab Sample ID: 280-36452-9**
Date Collected: 11/30/12 09:45 **Matrix: Solid**
Date Received: 12/01/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.3		0.10	0.10	%			12/07/12 11:46	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-150290/1-A
Matrix: Solid
Analysis Batch: 150816

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.6	0.25	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
2-Methylnaphthalene	ND		9.6	0.30	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Acenaphthene	ND		9.6	0.15	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Acenaphthylene	ND		9.6	0.16	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Anthracene	ND		9.6	0.69	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Benzo[a]anthracene	ND		9.6	0.87	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Benzo[a]pyrene	ND		9.6	0.71	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Benzo[b]fluoranthene	ND		9.6	1.2	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Benzo[g,h,i]perylene	ND		9.6	1.1	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Benzo[k]fluoranthene	ND		9.6	0.96	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Chrysene	ND		9.6	0.96	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Dibenz(a,h)anthracene	ND		9.6	1.3	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Fluoranthene	ND		9.6	0.96	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Fluorene	ND		9.6	0.45	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Indeno[1,2,3-cd]pyrene	ND		9.6	1.1	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Naphthalene	ND		9.6	0.31	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
N-Nitrosodimethylamine	ND		9.6	2.3	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Phenanthrene	ND		9.6	1.1	ug/Kg		12/04/12 10:00	12/06/12 15:48	1
Pyrene	ND		9.6	1.1	ug/Kg		12/04/12 10:00	12/06/12 15:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*45 - 130*	*12/04/12 10:00*	*12/06/12 15:48*	*1*
Nitrobenzene-d5	*92*		*40 - 130*	*12/04/12 10:00*	*12/06/12 15:48*	*1*
Terphenyl-d14	*93*		*45 - 130*	*12/04/12 10:00*	*12/06/12 15:48*	*1*

Lab Sample ID: LCS 280-150290/2-A
Matrix: Solid
Analysis Batch: 150816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	30.0	28.2		ug/Kg		94	50 - 150
2-Methylnaphthalene	30.0	27.2		ug/Kg		91	30 - 120
Acenaphthene	30.0	27.2		ug/Kg		91	35 - 120
Acenaphthylene	30.0	27.2		ug/Kg		91	41 - 120
Anthracene	30.0	26.3		ug/Kg		88	43 - 120
Benzo[a]anthracene	30.0	27.2		ug/Kg		91	36 - 120
Benzo[a]pyrene	30.0	25.0		ug/Kg		83	20 - 120
Benzo[b]fluoranthene	30.0	26.4		ug/Kg		88	37 - 120
Benzo[g,h,i]perylene	30.0	25.3		ug/Kg		84	20 - 123
Benzo[k]fluoranthene	30.0	26.8		ug/Kg		89	46 - 120
Chrysene	30.0	28.9		ug/Kg		96	34 - 120
Dibenz(a,h)anthracene	30.0	24.5		ug/Kg		82	20 - 120
Fluoranthene	30.0	25.9		ug/Kg		86	45 - 120
Fluorene	30.0	26.2		ug/Kg		87	44 - 120
Indeno[1,2,3-cd]pyrene	30.0	24.0		ug/Kg		80	20 - 127
Naphthalene	30.0	27.8		ug/Kg		93	44 - 120
Phenanthrene	30.0	28.1		ug/Kg		94	44 - 120
Pyrene	30.0	25.3		ug/Kg		84	43 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-150290/2-A
Matrix: Solid
Analysis Batch: 150816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150290

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	88		45 - 130
Nitrobenzene-d5	94		40 - 130
Terphenyl-d14	92		45 - 130

Lab Sample ID: 280-36452-4 MS
Matrix: Solid
Analysis Batch: 150816

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS
Prep Type: Total/NA
Prep Batch: 150290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	ND		31.0	24.1		ug/Kg	☼	78	50 - 150
2-Methylnaphthalene	ND		31.0	23.2		ug/Kg	☼	75	30 - 120
Acenaphthene	ND		31.0	23.1		ug/Kg	☼	74	35 - 120
Acenaphthylene	ND		31.0	23.2		ug/Kg	☼	75	41 - 120
Anthracene	ND		31.0	22.3		ug/Kg	☼	72	43 - 120
Benzo[a]anthracene	ND		31.0	23.4		ug/Kg	☼	76	36 - 120
Benzo[a]pyrene	ND		31.0	20.6		ug/Kg	☼	66	20 - 120
Benzo[b]fluoranthene	ND		31.0	21.4		ug/Kg	☼	69	37 - 120
Benzo[g,h,i]perylene	ND		31.0	18.5		ug/Kg	☼	59	20 - 123
Benzo[k]fluoranthene	ND		31.0	22.0		ug/Kg	☼	71	46 - 120
Chrysene	ND		31.0	24.2		ug/Kg	☼	78	34 - 120
Dibenz(a,h)anthracene	ND		31.0	18.8		ug/Kg	☼	61	20 - 120
Fluoranthene	ND		31.0	21.9		ug/Kg	☼	70	45 - 120
Fluorene	ND		31.0	22.2		ug/Kg	☼	72	44 - 120
Indeno[1,2,3-cd]pyrene	ND		31.0	18.3		ug/Kg	☼	59	20 - 127
Naphthalene	ND		31.0	23.5		ug/Kg	☼	76	44 - 120
Phenanthrene	ND		31.0	23.7		ug/Kg	☼	76	44 - 120
Pyrene	ND		31.0	20.9		ug/Kg	☼	67	43 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	73		45 - 130
Nitrobenzene-d5	81		40 - 130
Terphenyl-d14	77		45 - 130

Lab Sample ID: 280-36452-4 MSD
Matrix: Solid
Analysis Batch: 150816

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS
Prep Type: Total/NA
Prep Batch: 150290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		30.7	22.7		ug/Kg	☼	74	50 - 150	6	50
2-Methylnaphthalene	ND		30.7	22.0		ug/Kg	☼	71	30 - 120	5	30
Acenaphthene	ND		30.7	22.1		ug/Kg	☼	72	35 - 120	5	50
Acenaphthylene	ND		30.7	22.5		ug/Kg	☼	73	41 - 120	3	50
Anthracene	ND		30.7	21.1		ug/Kg	☼	69	43 - 120	6	50
Benzo[a]anthracene	ND		30.7	22.2		ug/Kg	☼	72	36 - 120	6	40
Benzo[a]pyrene	ND		30.7	19.5		ug/Kg	☼	64	20 - 120	5	30
Benzo[b]fluoranthene	ND		30.7	20.3		ug/Kg	☼	66	37 - 120	5	28
Benzo[g,h,i]perylene	ND		30.7	17.4		ug/Kg	☼	57	20 - 123	6	30
Benzo[k]fluoranthene	ND		30.7	20.8		ug/Kg	☼	68	46 - 120	6	28

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36452-4 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150816 — **Prep Batch: 150290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	ND		30.7	23.0		ug/Kg	☼	75	34 - 120	5	41
Dibenz(a,h)anthracene	ND		30.7	18.1		ug/Kg	☼	59	20 - 120	4	25
Fluoranthene	ND		30.7	20.8		ug/Kg	☼	68	45 - 120	5	30
Fluorene	ND		30.7	21.0		ug/Kg	☼	68	44 - 120	6	50
Indeno[1,2,3-cd]pyrene	ND		30.7	17.3		ug/Kg	☼	56	20 - 127	6	50
Naphthalene	ND		30.7	22.1		ug/Kg	☼	72	44 - 120	6	50
Phenanthrene	ND		30.7	22.7		ug/Kg	☼	74	44 - 120	4	42
Pyrene	ND		30.7	19.7		ug/Kg	☼	64	43 - 120	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*45 - 130*
Nitrobenzene-d5	*77*		*40 - 130*
Terphenyl-d14	*72*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-150117/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150592 — **Prep Batch: 150117**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.33	mg/Kg		12/01/12 15:24	12/05/12 20:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*77 - 123*	*12/01/12 15:24*	*12/05/12 20:15*	*1*

Lab Sample ID: LCS 280-150117/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150592 — **Prep Batch: 150117**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	5.50	5.62		mg/Kg		102	85 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*112*		*77 - 123*

Lab Sample ID: 280-36452-6 MS — **Client Sample ID: SL-573-SA6-SB-3.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150592 — **Prep Batch: 150117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		5.74	5.60		mg/Kg	☼	98	85 - 153

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*111*		*77 - 123*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 280-36452-6 MSD — **Client Sample ID: SL-573-SA6-SB-3.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150592 — **Prep Batch: 150117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		5.38	4.94		mg/Kg	☼	92	85 - 153	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*108*		*77 - 123*

Lab Sample ID: MB 280-150591/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*82 - 110*		*12/05/12 16:09*	*1*

Lab Sample ID: LCS 280-150591/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	104		ug/L		103	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Lab Sample ID: LCSD 280-150591/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	101		ug/L		100	79 - 149	3	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-150232/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151005 — **Prep Batch: 150232**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		9.9	0.99	mg/Kg		12/03/12 21:45	12/05/12 22:09	1
EFH (C12-C14)	ND		5.0	0.99	mg/Kg		12/03/12 21:45	12/05/12 22:09	1
EFH (C15-C20)	ND		5.0	0.99	mg/Kg		12/03/12 21:45	12/05/12 22:09	1
EFH (C21-C30)	ND		5.0	0.99	mg/Kg		12/03/12 21:45	12/05/12 22:09	1
EFH (C8-C11)	ND		5.0	0.99	mg/Kg		12/03/12 21:45	12/05/12 22:09	1

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: MB 280-150232/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151005 — **Prep Batch: 150232**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	0.947	J	4.0	0.67	mg/Kg		12/03/12 21:45	12/05/12 22:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*49 - 115*	*12/03/12 21:45*	*12/05/12 22:09*	*1*

Lab Sample ID: LCS 280-150232/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151005 — **Prep Batch: 150232**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	31.5	29.8		mg/Kg		94	43 - 115
EFH (C15-C20)	47.3	48.1		mg/Kg		102	56 - 115
EFH (C21-C30)	63.1	63.9		mg/Kg		101	55 - 115
EFH (C8-C11)	15.8	13.9		mg/Kg		88	21 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*101*		*49 - 115*

Lab Sample ID: 280-36452-4 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151005 — **Prep Batch: 150232**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	ND		33.5	27.2		mg/Kg	☼	81	43 - 115
EFH (C15-C20)	ND		50.2	51.9		mg/Kg	☼	103	56 - 115
EFH (C21-C30)	ND		67.0	72.6		mg/Kg	☼	108	55 - 115
EFH (C8-C11)	ND		16.7	9.61		mg/Kg	☼	57	21 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*101*		*49 - 115*

Lab Sample ID: 280-36452-4 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151005 — **Prep Batch: 150232**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	ND		33.0	30.6		mg/Kg	☼	93	43 - 115	12	30
EFH (C15-C20)	ND		49.4	50.7		mg/Kg	☼	103	56 - 115	2	30
EFH (C21-C30)	ND		65.9	89.7	F	mg/Kg	☼	136	55 - 115	21	30
EFH (C8-C11)	ND		16.5	12.9		mg/Kg	☼	78	21 - 125	29	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*101*		*49 - 115*

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-150362/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1221	ND		32	15	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1232	ND		17	5.0	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1242	ND		17	8.9	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1248	ND		17	5.5	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1254	ND		17	5.4	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1260	ND		17	2.6	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1262	ND		32	11	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 1268	ND		32	3.8	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 5432	ND		49	15	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 5442	ND		49	31	ug/Kg		12/04/12 13:15	12/07/12 16:11	1
Aroclor 5460	ND		49	16	ug/Kg		12/04/12 13:15	12/07/12 16:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*45 - 120*	*12/04/12 13:15*	*12/07/12 16:11*	*1*
Tetrachloro-m-xylene	*101*		*45 - 120*	*12/04/12 13:15*	*12/07/12 16:11*	*1*

Lab Sample ID: LCS 280-150362/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	64.7	69.8		ug/Kg		108	54 - 132
Aroclor 1260	64.7	76.1		ug/Kg		118	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*108*		*45 - 120*
Tetrachloro-m-xylene	*104*		*45 - 120*

Lab Sample ID: LCS 280-150362/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	66.0	48.6	J	ug/Kg		74	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*108*		*45 - 120*
Tetrachloro-m-xylene	*103*		*45 - 120*

Lab Sample ID: 280-36428-A-21-O MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	ND		66.8	58.9		ug/Kg	☼	88	62 - 129

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36428-A-21-O MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	99		45 - 120
Tetrachloro-m-xylene	97		45 - 120

Lab Sample ID: 280-36428-A-21-P MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		68.4	64.5		ug/Kg	☼	94	62 - 129	9	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	97		45 - 120
Tetrachloro-m-xylene	96		45 - 120

Lab Sample ID: 280-36428-C-21-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		67.7	71.1		ug/Kg	☼	105	54 - 132
Aroclor 1260	ND		67.7	71.4		ug/Kg	☼	106	62 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	97		45 - 120
Tetrachloro-m-xylene	96		45 - 120

Lab Sample ID: 280-36428-E-21-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		69.5	67.4		ug/Kg	☼	97	54 - 132	5	36
Aroclor 1260	ND		69.5	73.4		ug/Kg	☼	106	62 - 129	3	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	95		45 - 120
Tetrachloro-m-xylene	94		45 - 120

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		66.1	46.9		ug/Kg	☼	71	54 - 132
Aroclor 1260	ND		66.1	60.0		ug/Kg	☼	91	62 - 129

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	84		45 - 120
Tetrachloro-m-xylene	80		45 - 120

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	ND		69.2	72.5		ug/Kg	☼	105	62 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	102		45 - 120
Tetrachloro-m-xylene	96		45 - 120

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		68.5	59.1		ug/Kg	☼	86	54 - 132	23	36
Aroclor 1260	ND		68.5	63.3		ug/Kg	☼	92	62 - 129	5	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	90		45 - 120
Tetrachloro-m-xylene	86		45 - 120

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151100 — **Prep Batch: 150362**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		66.8	66.3		ug/Kg	☼	99	62 - 129	9	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	100		45 - 120
Tetrachloro-m-xylene	91		45 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-150486/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Boron	ND		9.7	0.98	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Calcium	ND		50	14	mg/Kg		12/05/12 13:00	12/06/12 11:01	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 280-150486/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8.41	J	34	3.8	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Lithium	ND		37	0.30	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Magnesium	ND		10	3.7	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Manganese	ND		500	0.10	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Phosphorus	ND		10	1.6	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Potassium	ND		6400	41	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Sodium	ND		500	59	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Strontium	ND		0.50	0.036	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Tin	0.943	J	11	0.91	mg/Kg		12/05/12 13:00	12/06/12 11:01	1

Lab Sample ID: MB 280-150486/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	ND		1.0	0.14	mg/Kg		12/05/12 13:00	12/07/12 18:24	1
Zirconium	ND		8.6	0.35	mg/Kg		12/05/12 13:00	12/07/12 18:24	1

Lab Sample ID: LCS 280-150486/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	194	J	mg/Kg		97	80 - 120
Boron	100	97.7		mg/Kg		98	80 - 120
Calcium	5000	4680		mg/Kg		94	80 - 120
Iron	100	96.7		mg/Kg		97	80 - 120
Lithium	100	106		mg/Kg		106	80 - 120
Magnesium	5000	4810		mg/Kg		96	80 - 120
Manganese	50.0	48.3	J	mg/Kg		97	80 - 120
Phosphorus	1000	1000		mg/Kg		100	80 - 120
Potassium	5000	5250	J	mg/Kg		105	80 - 120
Sodium	5000	5360		mg/Kg		107	80 - 120
Strontium	100	97.7		mg/Kg		98	80 - 120
Tin	200	193		mg/Kg		96	80 - 120

Lab Sample ID: LCS 280-150486/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	100	100		mg/Kg		100	80 - 120
Zirconium	50.0	46.6		mg/Kg		93	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	14000	J	206	18400	J 4	mg/Kg	☼	2104	75 - 125
Boron	1.7	J	103	96.4		mg/Kg	☼	92	75 - 125
Calcium	1900		5140	6710		mg/Kg	☼	94	75 - 125
Iron	17000	B	103	17700	4	mg/Kg	☼	903	75 - 125
Lithium	22	J	103	130		mg/Kg	☼	105	75 - 125
Magnesium	4200		5140	9360		mg/Kg	☼	101	75 - 125
Manganese	310	J	51.4	379	J 4	mg/Kg	☼	134	75 - 125
Phosphorus	290		1030	1250		mg/Kg	☼	93	75 - 125
Potassium	3200	J	5140	8720		mg/Kg	☼	107	75 - 125
Sodium	130	J	5140	5490		mg/Kg	☼	104	75 - 125
Strontium	17		103	115		mg/Kg	☼	95	75 - 125
Tin	1.1	J B	206	180		mg/Kg	☼	87	75 - 125

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	960		103	1200	4	mg/Kg	☼	236	75 - 125
Zirconium	1.6	J	51.4	44.9		mg/Kg	☼	84	75 - 125

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	14000	J	181	17500	J 4	mg/Kg	☼	1892	75 - 125	5	20
Boron	1.7	J	90.3	84.8		mg/Kg	☼	92	75 - 125	13	20
Calcium	1900		4510	6020		mg/Kg	☼	91	75 - 125	11	20
Iron	17000	B	90.3	16900	4	mg/Kg	☼	101	75 - 125	5	20
Lithium	22	J	90.3	115		mg/Kg	☼	103	75 - 125	12	20
Magnesium	4200		4510	8560		mg/Kg	☼	97	75 - 125	9	20
Manganese	310	J	45.1	363	J 4	mg/Kg	☼	117	75 - 125	4	20
Phosphorus	290		903	1120		mg/Kg	☼	93	75 - 125	10	20
Potassium	3200	J	4510	7820		mg/Kg	☼	102	75 - 125	11	20
Sodium	130	J	4510	4770		mg/Kg	☼	103	75 - 125	14	20
Strontium	17		90.3	102		mg/Kg	☼	94	75 - 125	12	20
Tin	1.1	J B	181	156		mg/Kg	☼	86	75 - 125	14	20

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Titanium	960		90.3	1140	4	mg/Kg	☼	194	75 - 125	6	20
Zirconium	1.6	J	45.1	38.9		mg/Kg	☼	83	75 - 125	14	20

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-150488/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Arsenic	ND		15	0.051	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Barium	ND		140	0.071	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Beryllium	ND		1.1	0.023	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Chromium	ND		37	0.076	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Cobalt	ND		21	0.0066	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Copper	ND		29	0.071	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Lead	ND		34	0.018	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Nickel	0.0701	J	29	0.025	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Selenium	ND		0.66	0.13	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Silver	ND		0.79	0.020	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Thallium	ND		0.46	0.0035	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Vanadium	ND		62	0.039	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Zinc	ND		110	0.32	mg/Kg		12/05/12 13:00	12/05/12 21:55	1

Lab Sample ID: LCS 280-150488/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.6		mg/Kg		98	80 - 120
Arsenic	20.0	19.8		mg/Kg		99	80 - 120
Barium	20.0	19.9	J	mg/Kg		100	80 - 120
Beryllium	20.0	19.5		mg/Kg		98	80 - 120
Cadmium	20.0	19.9		mg/Kg		99	80 - 120
Chromium	20.0	19.9	J	mg/Kg		100	80 - 120
Cobalt	20.0	20.3	J	mg/Kg		101	80 - 120
Copper	20.0	21.3	J	mg/Kg		106	80 - 120
Lead	20.0	20.9	J	mg/Kg		104	80 - 120
Molybdenum	20.0	19.4		mg/Kg		97	80 - 120
Nickel	20.0	21.0	J	mg/Kg		105	80 - 120
Selenium	20.0	19.8		mg/Kg		99	80 - 120
Silver	20.0	20.1		mg/Kg		101	80 - 120
Thallium	20.0	20.9		mg/Kg		105	80 - 120
Vanadium	20.0	19.3	J	mg/Kg		96	80 - 120
Zinc	20.0	20.0	J	mg/Kg		100	80 - 120

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.020	J	20.0	1.35	J F	mg/Kg	☼	7	75 - 125
Arsenic	2.9	J	20.0	21.8		mg/Kg	☼	95	75 - 125
Barium	99	J	20.0	121	J 4	mg/Kg	☼	112	75 - 125
Beryllium	0.54	J	20.0	20.3		mg/Kg	☼	99	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.25	J	20.0	19.8		mg/Kg	☼	98	75 - 125
Chromium	17	J	20.0	36.3	J	mg/Kg	☼	97	75 - 125
Cobalt	5.6	J	20.0	24.8		mg/Kg	☼	96	75 - 125
Copper	8.9	J	20.0	28.5	J	mg/Kg	☼	98	75 - 125
Lead	4.5	J	20.0	24.1	J	mg/Kg	☼	98	75 - 125
Molybdenum	0.43	J	20.0	16.9		mg/Kg	☼	82	75 - 125
Nickel	12	J B	20.0	31.4		mg/Kg	☼	98	75 - 125
Selenium	0.66	J	20.0	18.9		mg/Kg	☼	91	75 - 125
Silver	0.036	J	20.0	18.3		mg/Kg	☼	92	75 - 125
Thallium	0.27	J	20.0	20.1		mg/Kg	☼	99	75 - 125
Vanadium	31	J	20.0	52.1	J	mg/Kg	☼	106	75 - 125
Zinc	51	J	20.0	70.1	J	mg/Kg	☼	98	75 - 125

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.020	J	20.6	1.41	J F	mg/Kg	☼	7	75 - 125	4	20
Arsenic	2.9	J	20.6	22.9		mg/Kg	☼	97	75 - 125	5	20
Barium	99	J	20.6	123	J 4	mg/Kg	☼	118	75 - 125	2	20
Beryllium	0.54	J	20.6	21.5		mg/Kg	☼	102	75 - 125	6	20
Cadmium	0.25	J	20.6	20.8		mg/Kg	☼	100	75 - 125	5	20
Chromium	17	J	20.6	38.0		mg/Kg	☼	102	75 - 125	5	20
Cobalt	5.6	J	20.6	26.0		mg/Kg	☼	99	75 - 125	5	20
Copper	8.9	J	20.6	29.8	J	mg/Kg	☼	101	75 - 125	5	20
Lead	4.5	J	20.6	25.5	J	mg/Kg	☼	102	75 - 125	6	20
Molybdenum	0.43	J	20.6	18.1		mg/Kg	☼	86	75 - 125	7	20
Nickel	12	J B	20.6	33.0		mg/Kg	☼	104	75 - 125	5	20
Selenium	0.66	J	20.6	20.4		mg/Kg	☼	96	75 - 125	7	20
Silver	0.036	J	20.6	19.4		mg/Kg	☼	94	75 - 125	6	20
Thallium	0.27	J	20.6	21.3		mg/Kg	☼	102	75 - 125	6	20
Vanadium	31	J	20.6	53.5	J	mg/Kg	☼	110	75 - 125	3	20
Zinc	51	J	20.6	72.9	J	mg/Kg	☼	109	75 - 125	4	20

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 280-150508/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/07/12 12:10	12/07/12 16:09	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique) (Continued)

Lab Sample ID: LCS 280-150508/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.417	0.419		mg/Kg		101	85 - 120		

Lab Sample ID: 280-36452-5 MS — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.481	0.479		mg/Kg	☼	100	65 - 135		

Lab Sample ID: 280-36452-5 MSD — **Client Sample ID: SL-573-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.440	0.460		mg/Kg	☼	104	65 - 135	4	20

Method: 9045D - pH

Lab Sample ID: LCS 280-150894/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150894

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	7.010		SU		100	95 - 105		

Lab Sample ID: LCSD 280-150894/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150894

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	7.000		SU		100	95 - 105	0	5

Lab Sample ID: 280-36452-3 DU — **Client Sample ID: SL-573-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150894

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	6.84			7.100		SU				4	5
Temperature	21.1			21.10		Degrees C				0	5

Method: Moisture - Percent Moisture

Lab Sample ID: 280-36452-3 DU — **Client Sample ID: SL-573-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150744

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	10			11		%				4	20

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

GC/MS Semi VOA

Prep Batch: 150290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	
280-36452-4 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	
280-36452-4 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	3546	
LCS 280-150290/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-150290/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 150816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	150290
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8270C SIM	150290
280-36452-4 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8270C SIM	150290
280-36452-4 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8270C SIM	150290
LCS 280-150290/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	150290
MB 280-150290/1-A	Method Blank	Total/NA	Solid	8270C SIM	150290

Analysis Batch: 151477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	8270C SIM	150290

Analysis Batch: 151885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	None	
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	None	

GC VOA

Prep Batch: 150117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-6	SL-573-SA6-SB-3.5MS	Total/NA	Solid	5035	
280-36452-6 MS	SL-573-SA6-SB-3.5MS	Total/NA	Solid	5035	
280-36452-6 MSD	SL-573-SA6-SB-3.5MS	Total/NA	Solid	5035	
280-36452-9	SL-973-SA6-SB-3.5	Total/NA	Solid	5035	
LCS 280-150117/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 280-150117/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 150591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-1	TB-113012	Total/NA	Water	8015B	
LCS 280-150591/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-150591/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-150591/7	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 150592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-6	SL-573-SA6-SB-3.5MS	Total/NA	Solid	8015B	150117
280-36452-6 MS	SL-573-SA6-SB-3.5MS	Total/NA	Solid	8015B	150117
280-36452-6 MSD	SL-573-SA6-SB-3.5MS	Total/NA	Solid	8015B	150117

GC VOA (Continued)

Analysis Batch: 150592 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-9	SL-973-SA6-SB-3.5	Total/NA	Solid	8015B	150117
LCS 280-150117/2-A	Lab Control Sample	Total/NA	Solid	8015B	150117
MB 280-150117/1-A	Method Blank	Total/NA	Solid	8015B	150117

GC Semi VOA

Leach Batch: 150012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36428-A-21-O MS	Matrix Spike	Total/NA	Solid	Increment, Prep	
280-36428-A-21-P MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, Prep	
280-36428-C-21-G MS	Matrix Spike	Total/NA	Solid	Increment, Prep	
280-36428-E-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, Prep	

Prep Batch: 150232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3550C	
280-36452-4 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3550C	
280-36452-4 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3550C	
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	3550C	
LCS 280-150232/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 280-150232/1-A	Method Blank	Total/NA	Solid	3550C	

Leach Batch: 150242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	

Prep Batch: 150362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36428-A-21-O MS	Matrix Spike	Total/NA	Solid	3546	150012
280-36428-A-21-P MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	150012
280-36428-C-21-G MS	Matrix Spike	Total/NA	Solid	3546	150012
280-36428-E-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	150012
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	150242
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	150242
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	150242
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	150242
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3546	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	3546	150242
LCS 280-150362/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-150362/5-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-150362/1-A	Method Blank	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Analysis Batch: 151005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	150232
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8015B	150232
280-36452-4 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8015B	150232
280-36452-4 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8015B	150232
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	8015B	150232
LCS 280-150232/2-A	Lab Control Sample	Total/NA	Solid	8015B	150232
MB 280-150232/1-A	Method Blank	Total/NA	Solid	8015B	150232

Analysis Batch: 151100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36428-A-21-O MS	Matrix Spike	Total/NA	Solid	8082A	150362
280-36428-A-21-P MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	150362
280-36428-C-21-G MS	Matrix Spike	Total/NA	Solid	8082A	150362
280-36428-E-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	150362
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	150362
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8082A	150362
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8082A	150362
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8082A	150362
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8082A	150362
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	8082A	150362
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	8082A	150362
LCS 280-150362/4-A	Lab Control Sample	Total/NA	Solid	8082A	150362
LCS 280-150362/5-A	Lab Control Sample	Total/NA	Solid	8082A	150362
MB 280-150362/1-A	Method Blank	Total/NA	Solid	8082A	150362

Metals

Leach Batch: 150242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	

Prep Batch: 150486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	3050B	150242
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-150486/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 150488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242

Metals (Continued)

Prep Batch: 150488 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	3050B	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	3050B	150242
LCS 280-150488/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-150488/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 150508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150242
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150242
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	7471B	150242
LCS 280-150508/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-150508/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 150768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	150488
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6020A	150488
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6020A	150488
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6020A	150488
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	6020A	150488
LCS 280-150488/2-A	Lab Control Sample	Total/NA	Solid	6020A	150488
MB 280-150488/1-A	Method Blank	Total/NA	Solid	6020A	150488

Analysis Batch: 150867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	6010C	150486
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	6010C	150486
MB 280-150486/1-A	Method Blank	Total/NA	Solid	6010C	150486

Analysis Batch: 151312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	6010C	150486
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	6010C	150486
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	6010C	150486
MB 280-150486/1-A	Method Blank	Total/NA	Solid	6010C	150486

Analysis Batch: 151330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150508
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150508
280-36452-5 MS	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150508
280-36452-5 MSD	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	7471B	150508

Metals (Continued)

Analysis Batch: 151330 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	7471B	150508
LCS 280-150508/2-A	Lab Control Sample	Total/NA	Solid	7471B	150508
MB 280-150508/1-A	Method Blank	Total/NA	Solid	7471B	150508

General Chemistry

Leach Batch: 150242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36452-3 DU	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36452-3 DU	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	DI Leach	
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	DI Leach	

Analysis Batch: 150744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150242
280-36452-3 DU	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Moisture	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	150242

Analysis Batch: 150894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-3	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150242
280-36452-3 DU	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150242
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	9045D	150242
280-36452-8	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	9045D	150242
LCS 280-150894/4	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-150894/5	Lab Control Sample Dup	Total/NA	Solid	9045D	

Analysis Batch: 151052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-2	SL-573-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36452-4	SL-573-SA6-SB-3.0-4.0MS	Total/NA	Solid	Moisture	
280-36452-6	SL-573-SA6-SB-3.5MS	Total/NA	Solid	Moisture	
280-36452-7	SL-973-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	
280-36452-9	SL-973-SA6-SB-3.5	Total/NA	Solid	Moisture	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Client Sample ID: TB-113012 — Lab Sample ID: 280-36452-1

Date Collected: 11/30/12 08:00 — **Matrix: Water**
Date Received: 12/01/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 mL	5 mL	150591	12/05/12 18:15	TEM	TAL DEN

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36452-2

Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	150290	12/04/12 10:00	LC	TAL DEN
Total/NA	Analysis	8270C SIM		1			150816	12/06/12 22:57	KGV	TAL DEN
Total/NA	Analysis	None		1			151885	12/12/12 15:48	JB	TAL DEN
Total/NA	Prep	3550C			30.9 g	1000 uL	150232	12/03/12 21:45	NC	TAL DEN
Total/NA	Analysis	8015B		1			151005	12/05/12 22:57	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151052	12/07/12 11:44	DFB	TAL DEN

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36452-3

Date Collected: 11/30/12 09:15 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3546			31.9 g	10000 uL	150362	12/04/12 13:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			151100	12/07/12 22:58	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:00	TEL	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:06	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 18:29	HEB	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:13	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			150744	12/06/12 08:16	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	150894	12/08/12 13:17	DA	TAL DEN

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-4

Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.7 g	1000 uL	150290	12/04/12 10:00	LC	TAL DEN
Total/NA	Analysis	8270C SIM		1			150816	12/06/12 23:23	KGV	TAL DEN
Total/NA	Analysis	None		1			151885	12/12/12 15:48	JB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-4

Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			31.2 g	1000 uL	150232	12/03/12 21:45	NC	TAL DEN
Total/NA	Analysis	8015B		1			151005	12/05/12 23:22	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151052	12/07/12 11:44	DFB	TAL DEN

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-5

Date Collected: 11/30/12 09:30 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3546			30.7 g	10000 uL	150362	12/04/12 13:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			151100	12/07/12 23:19	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:03	TEL	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:08	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 18:31	HEB	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:16	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			150744	12/06/12 08:16	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	150894	12/08/12 13:20	DA	TAL DEN

Client Sample ID: SL-573-SA6-SB-3.5MS — Lab Sample ID: 280-36452-6

Date Collected: 11/30/12 09:35 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.916 g	5 mL	150117	12/01/12 15:24	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150592	12/05/12 21:13	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151052	12/07/12 11:46	DFB	TAL DEN

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-7

Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.3 g	1000 uL	150290	12/04/12 10:00	LC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/10/12 23:37	KGV	TAL DEN
Total/NA	Analysis	None		1			151885	12/12/12 15:48	JB	TAL DEN
Total/NA	Prep	3550C			31.0 g	1000 uL	150232	12/03/12 21:45	NC	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-1

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-7

Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			151005	12/06/12 00:35	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151052	12/07/12 11:44	DFB	TAL DEN

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-8

Date Collected: 11/30/12 09:40 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	150362	12/04/12 13:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			151100	12/08/12 01:06	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:18	TEL	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:20	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 18:54	HEB	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:23	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			150744	12/06/12 08:16	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150242	12/03/12 15:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	150894	12/08/12 13:21	DA	TAL DEN

Client Sample ID: SL-973-SA6-SB-3.5 — Lab Sample ID: 280-36452-9

Date Collected: 11/30/12 09:45 — **Matrix: Solid**
Date Received: 12/01/12 09:00 — **Percent Solids: 96.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.385 g	5 mL	150117	12/01/12 15:24	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150592	12/05/12 22:43	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151052	12/07/12 11:46	DFB	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

5.0 (W)
FP
12112

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 11/30/2012
CarrierName: FedEx
AirbillNo: 794190018040

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121130-01
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-113012	11/30/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-573-SA6-SB-0.0-0.5	11/30/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-573-SA6-SB-0.0-0.5	11/30/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-573-SA6-SB-3.0-4.0MS	11/30/12 09:30	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X											X											MS/MSD
SL-573-SA6-SB-3.0-4.0MS	11/30/12 09:30	SO	None	3 - 4 oz glass	10 day													X																			MS/MSD
SL-573-SA6-SB-3.5 MS	11/30/12 09:35	SO	None	9 - Encore	10 day																				X												MS/MSD
SL-973-SA6-SB-3.0-4.0	11/30/12 09:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-973-SA6-SB-3.0-4.0	11/30/12 09:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-973-SA6-SB-3.5	11/30/12 09:45	SO	None	3 - Encore	10 day																				X												

Special Instructions:

Sampler: Mark Pelton

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	11/30/2012	1200	Wheeler	12112	0900						

COC Rev 2

COC: 20121130-01, Page 2 of 1

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36452-1

Login Number: 36452
List Number: 1
Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	One of 6 x 16oz jars recv'd broken for sample SL-573-SA6-SB-3.0-4.0MS
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	1/2 HCL VOA HAS A BUBBLE
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 03, 2012 8:21 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36452, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the five soil samples and one trip blank received at the laboratory on 12/1/12.

The samples were received in acceptable condition at a temperature of 5.0℃.

RECEIPT DISCREPANCIES:

1.) One of the six 16oz. soil jars for sample SL-573-SA6-SB-3.0-4.0MS (280-36452-5) was received at the Denver laboratory broken. Sufficient volume remains to proceed with the requested analyses.

2.) One of the two 40mL VOA vials submitted for sample TB-113012 (280-36452-1) contained an air bubble >6mm in size. The laboratory will proceed with the requested analysis using the uncompromised VOA vial.

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36452-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088488]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36452-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36452-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/27/2012 10:09:30 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 6
Sample Summary 7
Chronicle 8
Subcontract Data 9
Chain of Custody 35
Receipt Checklists 36

Job ID: 280-36452-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36452-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Three soil samples were received under Chain of Custody on December 1, 2012. The samples were received in good condition at a temperature of 5.0°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36452-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
S	Ion suppression.
C	Co-eluting isomer.
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-2

Client Sample ID: SL-573-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36452-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.24	Q J	1.1	0.11	1	0.24	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.8	J	5.7	0.073	0.5	0.90	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	4.2	J	5.7	0.063	0.1	0.42	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	9.2		5.7	0.060	0.1	0.92	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	12	C	5.7	0.058	0.1	1.2	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	160	B	5.7	0.075	0.01	1.6	ng/kg	1	☼	1613B	Total
OCDD	1300	B	11	0.080	0.001	1.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.13	Q J	5.7	0.051	0.05	0.0065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.40	Q J	5.7	0.033	0.1	0.040	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.39	Q J	5.7	0.034	0.1	0.039	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.13	Q B J	5.7	0.033	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.15	Q J	5.7	0.048	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.5	J	5.7	0.063	0.01	0.045	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.69	Q J	5.7	0.10	0.01	0.0069	ng/kg	1	☼	1613B	Total
OCDF	3.9	S B J	11	0.054	0.001	0.0039	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36452-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.34	J	5.2	0.053	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.53	Q J	5.2	0.049	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1.8	Q B J	5.2	0.043	0.01	0.018	ng/kg	1	☼	1613B	Total
OCDD	16	B	10	0.063	0.001	0.016	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.051	Q J	1.0	0.085	0.1	0.0051	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.039	Q J	5.2	0.026	0.1	0.0039	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.17	S Q J	5.2	0.050	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.086	Q J	5.2	0.045	0.01	0.00086	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-973-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36452-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.30	J	5.1	0.11	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.52	J	5.1	0.10	0.1	0.052	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.56	B J	5.1	0.12	0.01	0.0056	ng/kg	1	☼	1613B	Total
OCDD	3.9	B J	10	0.12	0.001	0.0039	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.25	Q J	5.1	0.090	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.15	Q J	5.1	0.10	0.01	0.0015	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36452-3	SL-573-SA6-SB-0.0-0.5	Solid	11/30/12 09:15	12/01/12 09:00
280-36452-5	SL-573-SA6-SB-3.0-4.0MS	Solid	11/30/12 09:30	12/01/12 09:00
280-36452-8	SL-973-SA6-SB-3.0-4.0	Solid	11/30/12 09:40	12/01/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36452-2

Client Sample ID: SL-573-SA6-SB-0.0-0.5

Lab Sample ID: 280-36452-3
Date Collected: 11/30/12 09:15
Matrix: Solid
Date Received: 12/01/12 09:00
Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	2340024_P	12/05/12 10:00		TAL KNX
Total	Analysis	1613B		1			2340024	12/15/12 04:34	JMN	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2341015	12/06/12 09:47	TN	TAL KNX

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS

Lab Sample ID: 280-36452-5
Date Collected: 11/30/12 09:30
Matrix: Solid
Date Received: 12/01/12 09:00
Percent Solids: 97

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2340024_P	12/05/12 10:00		TAL KNX
Total	Analysis	1613B		1			2340024	12/15/12 05:34	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2341015	12/06/12 09:48	TN	TAL KNX

Client Sample ID: SL-973-SA6-SB-3.0-4.0

Lab Sample ID: 280-36452-8
Date Collected: 11/30/12 09:40
Matrix: Solid
Date Received: 12/01/12 09:00
Percent Solids: 97.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2340024_P	12/05/12 10:00		TAL KNX
Total	Analysis	1613B		1			2340024	12/15/12 19:28	MAD	TAL KNX
Total	Analysis	160.3 MOD		1			2341015	12/06/12 09:48	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L050405 Analytical Report 1

Sample Receipt Documentation 23

Total Number of Pages 25

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36452-2

CDM - SSFL Area IV

Lot #: H2L050405

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

December 17, 2012

ANALYTICAL METHODS SUMMARY

H2L050405

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L050405

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXG0K	001	SL-573-SA6-SB-0.0-0.5	11/30/12	09:15
MXG0L	002	SL-573-SA6-SB-3.0-4.0MS	11/30/12	09:30
MXG0M	003	SL-973-SA6-SB-3.0-4.0	11/30/12	09:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L050405

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The matrix spike and duplicate on sample SL-573-SA6-SB-3.0-4.0MS exhibited low native recoveries on OCDF. The laboratory control sample was within limits. The data was reported as is.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

PROJECT NARRATIVE
H2L050405

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

PROJECT NARRATIVE
H2L050405

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration

PROJECT NARRATIVE
H2L050405

W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-573-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L050405 - 001	**Work Order #....:**	MXG0K1AC	**Matrix.....:**	SO
Date Sampled....:	11/30/12	**Date Received....:**	12/05/12	**Units....:**	ng/kg
Prep Date....:	12/05/12			**Dilution Factor:**	1
Prep Batch # ....:	2340024			**Percent Moisture:**	10
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**12/15/12**	**1**	**0.24 Q J**	**1.1**	**0.11**	**1.0**	**0.24**
1,2,3,7,8-PeCDD	**12/15/12**	**1**	**1.8 J**	**5.7**	**0.073**	**1.0**	**1.8**
1,2,3,4,7,8-HxCDD	**12/15/12**	**1**	**4.2 J**	**5.7**	**0.063**	**0.1**	**0.42**
1,2,3,6,7,8-HxCDD	**12/15/12**	**1**	**9.2**	**5.7**	**0.060**	**0.1**	**0.92**
1,2,3,7,8,9-HxCDD	**12/15/12**	**1**	**12 C**	**5.7**	**0.058**	**0.1**	**1.2**
1,2,3,4,6,7,8-HpCDD	**12/15/12**	**1**	**160 B**	**5.7**	**0.075**	**0.01**	**1.6**
OCDD	**12/15/12**	**1**	**1300 B**	**11**	**0.080**	**0.0003**	**0.39**
2,3,7,8-TCDF	12/15/12	1	ND	1.1	0.075	0.1	0
1,2,3,7,8-PeCDF	**12/15/12**	**1**	**0.13 Q J**	**5.7**	**0.051**	**0.03**	**0.0039**
2,3,4,7,8-PeCDF	12/15/12	1	ND	5.7	0.047	0.3	0
1,2,3,4,7,8-HxCDF	**12/15/12**	**1**	**0.40 Q J**	**5.7**	**0.033**	**0.1**	**0.040**
1,2,3,6,7,8-HxCDF	**12/15/12**	**1**	**0.39 Q J**	**5.7**	**0.034**	**0.1**	**0.039**
2,3,4,6,7,8-HxCDF	**12/15/12**	**1**	**0.13 Q B J**	**5.7**	**0.033**	**0.1**	**0.013**
1,2,3,7,8,9-HxCDF	**12/15/12**	**1**	**0.15 Q J**	**5.7**	**0.048**	**0.1**	**0.015**
1,2,3,4,6,7,8-HpCDF	**12/15/12**	**1**	**4.5 J**	**5.7**	**0.063**	**0.01**	**0.045**
1,2,3,4,7,8,9-HpCDF	**12/15/12**	**1**	**0.69 Q J**	**5.7**	**0.10**	**0.01**	**0.0069**
OCDF	**12/15/12**	**1**	**3.9 S B J**	**11**	**0.054**	**0.0003**	**0.0012**
Total TEQ Concentration							**6.7**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	105	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	94	(23 - 140)
13C-OCDD	81	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	98	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	64	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	57	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	58	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-573-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L050405 - 002	**Work Order #....:**	MXG0L1AC	**Matrix.....:**	SO
Date Sampled....:	11/30/12	**Date Received....:**	12/05/12	**Units....:**	ng/kg
Prep Date....:	12/05/12			**Dilution Factor:**	1
Prep Batch # ....:	2340024			**Percent Moisture:**	3.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/15/12	1	ND	1.0	0.11	1.0	0
1,2,3,7,8-PeCDD	12/15/12	1	ND	5.2	0.054	1.0	0
1,2,3,4,7,8-HxCDD	12/15/12	1	ND	5.2	0.051	0.1	0
1,2,3,6,7,8-HxCDD	**12/15/12**	**1**	**0.34 J**	**5.2**	**0.053**	**0.1**	**0.034**
1,2,3,7,8,9-HxCDD	**12/15/12**	**1**	**0.53 Q J**	**5.2**	**0.049**	**0.1**	**0.053**
1,2,3,4,6,7,8-HpCDD	**12/15/12**	**1**	**1.8 Q B J**	**5.2**	**0.043**	**0.01**	**0.018**
OCDD	**12/15/12**	**1**	**16 B**	**10**	**0.063**	**0.0003**	**0.0048**
2,3,7,8-TCDF	**12/15/12**	**1**	**0.051 Q J**	**1.0**	**0.085**	**0.1**	**0.0051**
1,2,3,7,8-PeCDF	12/15/12	1	ND	5.2	0.043	0.03	0
2,3,4,7,8-PeCDF	12/15/12	1	ND	5.2	0.043	0.3	0
1,2,3,4,7,8-HxCDF	12/15/12	1	ND	5.2	0.029	0.1	0
1,2,3,6,7,8-HxCDF	**12/15/12**	**1**	**0.039 Q J**	**5.2**	**0.026**	**0.1**	**0.0039**
2,3,4,6,7,8-HxCDF	12/15/12	1	ND	5.2	0.026	0.1	0
1,2,3,7,8,9-HxCDF	**12/15/12**	**1**	**0.17 S Q J**	**5.2**	**0.050**	**0.1**	**0.017**
1,2,3,4,6,7,8-HpCDF	**12/15/12**	**1**	**0.086 Q J**	**5.2**	**0.045**	**0.01**	**0.00086**
1,2,3,4,7,8,9-HpCDF	12/15/12	1	ND	5.2	0.082	0.01	0
OCDF	12/15/12	1	ND	10	0.051	0.0003	0
Total TEQ Concentration							**0.14**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	107	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	97	(23 - 140)
13C-OCDD	75	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	101	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	58	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	58	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-573-SA6-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-973-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L050405 - 003	**Work Order #....:**	MXG0M1AC	**Matrix.....:**	SO
Date Sampled....:	11/30/12	**Date Received....:**	12/05/12	**Units....:**	ng/kg
Prep Date....:	12/05/12			**Dilution Factor:**	1
Prep Batch # ....:	2340024			**Percent Moisture:**	2.9
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/15/12	1	ND	1.0	0.24	1.0	0
1,2,3,7,8-PeCDD	12/15/12	1	ND	5.1	0.17	1.0	0
1,2,3,4,7,8-HxCDD	12/15/12	1	ND	5.1	0.11	0.1	0
1,2,3,6,7,8-HxCDD	**12/15/12**	**1**	**0.30 J**	**5.1**	**0.11**	**0.1**	**0.030**
1,2,3,7,8,9-HxCDD	**12/15/12**	**1**	**0.52 J**	**5.1**	**0.10**	**0.1**	**0.052**
1,2,3,4,6,7,8-HpCDD	**12/15/12**	**1**	**0.56 B J**	**5.1**	**0.12**	**0.01**	**0.0056**
OCDD	**12/15/12**	**1**	**3.9 B J**	**10**	**0.12**	**0.0003**	**0.0012**
2,3,7,8-TCDF	12/15/12	1	ND	1.0	0.16	0.1	0
1,2,3,7,8-PeCDF	12/15/12	1	ND	5.1	0.11	0.03	0
2,3,4,7,8-PeCDF	12/15/12	1	ND	5.1	0.13	0.3	0
1,2,3,4,7,8-HxCDF	12/15/12	1	ND	5.1	0.065	0.1	0
1,2,3,6,7,8-HxCDF	12/15/12	1	ND	5.1	0.063	0.1	0
2,3,4,6,7,8-HxCDF	12/15/12	1	ND	5.1	0.077	0.1	0
1,2,3,7,8,9-HxCDF	**12/15/12**	**1**	**0.25 Q J**	**5.1**	**0.090**	**0.1**	**0.025**
1,2,3,4,6,7,8-HpCDF	**12/15/12**	**1**	**0.15 Q J**	**5.1**	**0.10**	**0.01**	**0.0015**
1,2,3,4,7,8,9-HpCDF	12/15/12	1	ND	5.1	0.19	0.01	0
OCDF	12/15/12	1	ND	10	0.13	0.0003	0
Total TEQ Concentration							**0.12**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	95	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	95	(24 - 185)
13C-2,3,4,7,8-PeCDF	70	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	70	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	60	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	54	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	104	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-973-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L050000 - 024B	**Work Order #....:**	MXG0N1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/05/12	**Analysis Date....:**	12/14/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2340024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.14	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.071	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.064	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.066	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.061	ng/kg
1,2,3,4,6,7,8-HpCDD	**0.11**	**Q J**	**5.0**	**0.052**	**ng/kg**
OCDD	**0.28**	**Q J**	**10**	**0.050**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.098	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.060	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.057	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.036	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.037	ng/kg
2,3,4,6,7,8-HxCDF	**0.071**	**Q J**	**5.0**	**0.036**	**ng/kg**
1,2,3,7,8,9-HxCDF	ND		5.0	0.044	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.045	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.060	ng/kg
OCDF	**0.13**	**Q J**	**10**	**0.061**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	25 - 164
13C-1,2,3,7,8-PeCDD	101	25 - 181
13C-1,2,3,4,7,8-HxCDD	86	32 - 141
13C-1,2,3,6,7,8-HxCDD	71	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	91	23 - 140
13C-OCDD	97	17 - 157
13C-2,3,7,8-TCDF	77	24 - 169
13C-1,2,3,7,8-PeCDF	94	24 - 185
13C-2,3,4,7,8-PeCDF	91	21 - 178
13C-1,2,3,4,7,8-HxCDF	74	26 - 152
13C-1,2,3,6,7,8-HxCDF	67	26 - 123
13C-2,3,4,6,7,8-HxCDF	75	28 - 136
13C-1,2,3,7,8,9-HxCDF	76	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	78	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	87	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L050000 - 024B	**Work Order #....:**	MXG0N1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/05/12	**Analysis Date....:**	12/14/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2340024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L050405	**Work Order # ...:**	MXG0N1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L050000 - 024				
Prep Date .....:	12/05/12	**Analysis Date ..:**	12/14/12		
Prep Batch # ...:	2340024				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**20.7**	**ng/kg**	**103**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**99.5**	**ng/kg**	**100**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**108**	**ng/kg**	**108**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**	**B**	**(70 - 140)**
OCDD	**200**	**207**	**ng/kg**	**104**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.8**	**ng/kg**	**99**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**98.5**	**ng/kg**	**98**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**102**	**ng/kg**	**102**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**103**	**ng/kg**	**103**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**107**	**ng/kg**	**107**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**ng/kg**	**101**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**101**	**ng/kg**	**101**		**(78 - 138)**
OCDF	**200**	**147**	**ng/kg**	**74**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(20 - 175)
13C-1,2,3,7,8-PeCDD	110	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	87	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	74	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	94	(26 - 166)
13C-OCDD	102	(13 - 199)
13C-2,3,7,8-TCDF	82	(22 - 152)
13C-1,2,3,7,8-PeCDF	101	(21 - 192)
13C-2,3,4,7,8-PeCDF	99	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	78	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	67	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	80	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	72	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	72	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	84	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L050405	**Work Order # ...:**	MXG0L1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L050405 - 002		MXG0L1AE-MSD		
Prep Date .....:	12/05/12	**Analysis Date ..:**	12/15/12		
Prep Batch # ...:	2340024				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**ND**	**20.0**	**19.4**	**ng/kg**	**97**	**(67 - 158)**		
	ND	**20.0**	**19.7**	**ng/kg**	**98**	**(67 - 158)**	**1.6**	**(0 - 25)**
1,2,3,7,8-PeCDD	**ND**	**100**	**97.4**	**ng/kg**	**97**	**(70 - 142)**		
	ND	**100**	**103**	**ng/kg**	**102**	**(70 - 142)**	**5.2**	**(0 - 25)**
1,2,3,4,7,8-HxCDD	**ND**	**100**	**99.2**	**ng/kg**	**99**	**(70 - 164)**		
	ND	**100**	**98.7**	**ng/kg**	**99**	**(70 - 164)**	**0.47**	**(0 - 25)**
1,2,3,6,7,8-HxCDD	**0.34**	**100**	**92.4**	**ng/kg**	**92**	**(76 - 134)**		
	0.34	**100**	**95.3**	**ng/kg**	**95**	**(76 - 134)**	**3.1**	**(0 - 25)**
1,2,3,7,8,9-HxCDD	**0.53**	**100**	**90.0**	**ng/kg**	**89**	**(64 - 162)**		
	0.53	**100**	**104**	**ng/kg**	**104**	**(64 - 162)**	**15**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDD	**1.8**	**100**	**96.7**	**ng/kg**	**95 B**	**(70 - 140)**		
	1.8	**100**	**95.1**	**ng/kg**	**93 B**	**(70 - 140)**	**1.7**	**(0 - 25)**
OCDD	**16**	**200**	**189**	**ng/kg**	**87 B**	**(78 - 144)**		
	16	**200**	**196**	**ng/kg**	**90 B**	**(78 - 144)**	**3.6**	**(0 - 25)**
2,3,7,8-TCDF	**0.051**	**20.0**	**19.1**	**ng/kg**	**95 X**	**(75 - 158)**		
	0.051	**20.0**	**19.2**	**ng/kg**	**96 X**	**(75 - 158)**	**0.88**	**(0 - 25)**
1,2,3,7,8-PeCDF	**ND**	**100**	**90.5**	**ng/kg**	**90**	**(80 - 134)**		
	ND	**100**	**93.3**	**ng/kg**	**93**	**(80 - 134)**	**3.1**	**(0 - 25)**
2,3,4,7,8-PeCDF	**ND**	**100**	**94.9**	**ng/kg**	**95**	**(68 - 160)**		
	ND	**100**	**98.4**	**ng/kg**	**98**	**(68 - 160)**	**3.7**	**(0 - 25)**
1,2,3,4,7,8-HxCDF	**ND**	**100**	**101**	**ng/kg**	**101**	**(72 - 134)**		
	ND	**100**	**99.7**	**ng/kg**	**100**	**(72 - 134)**	**1.3**	**(0 - 25)**
1,2,3,6,7,8-HxCDF	**0.039**	**100**	**97.9**	**ng/kg**	**98**	**(84 - 130)**		
	0.039	**100**	**97.1**	**ng/kg**	**97**	**(84 - 130)**	**0.79**	**(0 - 25)**
2,3,4,6,7,8-HxCDF	**ND**	**100**	**95.6**	**ng/kg**	**95 B**	**(70 - 156)**		
	ND	**100**	**98.7**	**ng/kg**	**99 B**	**(70 - 156)**	**3.2**	**(0 - 25)**
1,2,3,7,8,9-HxCDF	**0.17**	**100**	**99.0**	**ng/kg**	**99**	**(78 - 130)**		
	0.17	**100**	**101**	**ng/kg**	**101**	**(78 - 130)**	**1.9**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDF	**0.086**	**100**	**112**	**ng/kg**	**112**	**(82 - 122)**		
	0.086	**100**	**112**	**ng/kg**	**112**	**(82 - 122)**	**0.050**	**(0 - 25)**
1,2,3,4,7,8,9-HpCDF	**ND**	**100**	**107**	**ng/kg**	**106**	**(78 - 138)**		
	ND	**100**	**105**	**ng/kg**	**105**	**(78 - 138)**	**1.6**	**(0 - 25)**
OCDF	**ND**	**200**	**81.0**	**ng/kg**	**40 a B**	**(63 - 170)**		
	ND	**200**	**82.5**	**ng/kg**	**41 a B**	**(63 - 170)**	**1.8**	**(0 - 25)**

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L050405	**Work Order # ...:**	MXG0L1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L050405 - 002		MXG0L1AE-MSD		
Prep Date .....:	12/05/12	**Analysis Date ..:**	12/15/12		
Prep Batch # ...:	2340024				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
	103	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	98	(23 - 140)
	101	(23 - 140)
13C-OCDD	75	(17 - 157)
	96	(17 - 157)
13C-2,3,7,8-TCDF	68	(24 - 169)
	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	72	(24 - 185)
	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	76	(21 - 178)
	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	71	(28 - 136)
	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	64	(28 - 143)
	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	56	(26 - 138)
	60	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)
	83	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L050405	**Work Order # ...:**	MXG0L1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L050405 - 002		MXG0L1AE-MSD		
Prep Date .....:	12/05/12	**Analysis Date ..:**	12/15/12		
Prep Batch # ...:	2340024				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

X See project narrative.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H24D50405

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-161952.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 280-36452-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/11/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-573-SA6-SB-0.0-0.5 (280-36452-3)	11/30/12	09:15 Pacific		Solid			X	X		TEQs required
SL-573-SA6-SB-3.0-4.0MS (280-36452-5)	11/30/12	09:30 Pacific		Solid			X	X		TEQs required
SL-573-SA6-SB-3.0-4.0MS (280-36452-5MS)	11/30/12	09:30 Pacific	MS	Solid			X	X		TEQs required
SL-573-SA6-SB-3.0-4.0MS (280-36452-5MSD)	11/30/12	09:30 Pacific	MSD	Solid			X	X		TEQs required
SL-973-SA6-SB-3.0-4.0 (280-36452-8)	11/30/12	09:40 Pacific		Solid			X	X		TEQs required
									1 cooler	Rec'd @ 1.6°C
									with	custody seal intact
										SPH 12/5/12
									1 cooler	Fed Ex #
										5490 3693 0003

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12/4/12 1600	TA	[signature]	12/5/12 0950	TAKnox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L050405

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/5/12

QA026R23.doc, 022812

5.0 (W)
FP
12112

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 11/30/2012
CarrierName: FedEx
AirbillNo: 794190018040

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121130-01
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-113012	11/30/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-573-SA6-SB-0.0-0.5	11/30/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-573-SA6-SB-0.0-0.5	11/30/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-573-SA6-SB-3.0-4.0MS	11/30/12 09:30	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X											X											MS/MSD
SL-573-SA6-SB-3.0-4.0MS	11/30/12 09:30	SO	None	3 - 4 oz glass	10 day													X																			MS/MSD
SL-573-SA6-SB-3.5 MS	11/30/12 09:35	SO	None	9 - Encore	10 day																				X												MS/MSD
SL-973-SA6-SB-3.0-4.0	11/30/12 09:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-973-SA6-SB-3.0-4.0	11/30/12 09:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-973-SA6-SB-3.5	11/30/12 09:45	SO	None	3 - Encore	10 day																				X												

Special Instructions:

Sampler: Mark Pelton

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	11/30/2012	1200	Wheeler	12112	0900						

COC Rev 2

COC: 20121130-01, Page 2 of 1

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36452-2

Login Number: 36452

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	One of 6 x 16oz jars recv'd broken for sample SL-573-SA6-SB-3.0-4.0MS
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	1/2 HCL VOA HAS A BUBBLE
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 03, 2012 8:21 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36452, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the five soil samples and one trip blank received at the laboratory on 12/1/12.

The samples were received in acceptable condition at a temperature of 5.0℃.

RECEIPT DISCREPANCIES:

1.) One of the six 16oz. soil jars for sample SL-573-SA6-SB-3.0-4.0MS (280-36452-5) was received at the Denver laboratory broken. Sufficient volume remains to proceed with the requested analyses.

2.) One of the two 40mL VOA vials submitted for sample TB-113012 (280-36452-1) contained an air bubble >6mm in size. The laboratory will proceed with the requested analysis using the uncompromised VOA vial.

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36452-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088488]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36535-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36535-1
Client Project/Site: CDM - SSFL Area IV, Phase III
Revision: 1

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/14/2012 4:08:38 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 8
Detection Summary 9
Method Summary 21
Sample Summary 22
Client Sample Results 23
QC Sample Results 59
QC Association 79
Chronicle 89
Chain of Custody 101
Receipt Checklists 103

Job ID: 280-36535-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36535-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Twenty soil samples and one trip blank were received under Chain of Custody on December 4, 2012. The samples were received in good condition at temperatures of 3.0°C and 2.6°C.

SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that was homogenized. Prior to homogenization, sample volume required for the volatile analyses was logged as one distinct sample, while the volume requiring homogenization was logged with the same sample ID as a second laboratory sample.

The percent moisture analysis was performed on the homogenized sample volume, per project requirements. Data was uploaded from the homogenized moisture results to the associated non-homogenized samples per the project set-up to report the data on a dry weight basis.

Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The percent moisture result from the sample interval surrounding the encore sample has been applied to the TPH-GRO 8015B and/or VOCs 8260B results to report the data on a dry weight basis per project requirements and client instructions.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36535-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, samples SL-559-SA6-SB-0.0-0.5 (280-36535-21) and SL-574-SA6-SB-0.0-0.5 (280-36535-26) had to be analyzed at a 10X dilution. The reporting limits have been adjusted relative to the dilution required. The analyst noted that the sample extract was dark in color and extremely viscous, and analysis at a lesser dilution would jeopardize the integrity of the instrument.

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-559-SA6-SB-0.0-0.5 (280-36535-21) and SL-574-SA6-SB-0.0-0.5 (280-36535-26), because the extracts were diluted beyond the ability to quantitate recoveries.

No other anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B

Job ID: 280-36535-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Matrix spikes were not requested for batch 280-150591. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to analytes present above the linear calibration curve, samples SL-559-SA6-SB-0.0-0.5 (280-36535-21) and SL-574-SA6-SB-0.0-0.5 (280-36535-26) had to be analyzed at a 2X and 5X dilution, respectively. The reporting limits have been adjusted relative to the dilution required.

The surrogate recovery could not be reliably calculated for the diluted analysis of sample SL-574-SA6-SB-0.0-0.5 (280-36535-26), because the extract was diluted beyond the ability to quantitate a recovery.

A low level of Total Petroleum Hydrocarbons (C8-C40) was detected in the method blank associated with prep batch 280-150419. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

No other anomalies were observed.

GC Semivolatiles / Pesticides - SW846 Method 8081B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

TestAmerica Denver’s practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of “primary” and “secondary” results in the data package does not necessarily correlate to “primary” and “confirmation” column results. The use of the designator “primary” in the LIM system indicates the “preferred” result, which may come from either column.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the presence of interfering, non-target compounds and the nature of the sample matrix, sample SL-674-SA6-SB-2.5-3.5 (280-36535-19) had to be analyzed at a 10X dilution. The reporting limits have been adjusted relative to the dilution required. The analyst noted that sample SL-674-SA6-SB-2.5-3.5 (280-36535-19) had numerous non-target peaks caused by possible PCB’s present in the sample that could be interfering with the identification and quantitation of target analytes. This inference could cause false positive and/or negative results.

Surrogate recoveries could not be reliably calculated for the diluted analysis of sample SL-674-SA6-SB-2.5-3.5 (280-36535-19), because the extract was diluted beyond the ability to quantitate recoveries.

The laboratory noted that sample SL-674-SA6-SB-2.5-3.5 (280-36535-19) required Florisil clean-up to reduce matrix interferences.

The MS/MSD analyses associated with prep batch 280-150789 were performed on sample SL-672-SA6-SB-4.0-5.0 (280-36535-16). The MS/MSD exhibited the matrix spike (MS) percent recovery outside the QC control limits for Tetrachloro-m-xylene. Additionally, the MS/MSD exhibited the relative percent difference (RPD) data outside the QC control limits for beta-BHC and Toxaphene. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Job ID: 280-36535-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

Samples SL-674-SA6-SB-2.5-3.5 (280-36535-19) and SL-559-SA6-SB-0.0-0.5 (280-36535-22) exhibited surrogate recoveries outside the QC control limits. These anomalies are due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to analytes present above the linear calibration curve, sample SL-574-SA6-SB-0.0-0.5 (280-36535-27) had to be analyzed at a 20X dilution. The reporting limits have been adjusted relative to the dilution required.

Surrogate recoveries could not be reliably calculated for the diluted analysis of sample SL-574-SA6-SB-0.0-0.5 (280-36535-27), because the extract was diluted beyond the ability to quantitate recoveries.

The MS/MSD analyses associated with prep batch 280-150789 were performed on sample SL-571-SA6-SB-4.0-5.0MS (280-36535-4), as requested. The MS/MSD exhibited the matrix spike (MS) percent recovery outside the QC control limits for Aroclor 5460. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-151804 exhibited the % Difference (%D) value below the control limits for Decachlorobiphenyl. As the associated sample had the surrogate recoveries diluted out due to high target concentrations; corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / Herbicides - SW846 Method 8151A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of "primary" and "secondary" results in the data package does not necessarily correlate to "primary" and "confirmation" column results. The use of the designator "primary" in the LIM system indicates the "preferred" result, which may come from either column.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, sample SL-674-SA6-SB-2.5-3.5 (280-36535-19) had to be analyzed at a 5X dilution. The reporting limits have been adjusted relative to the dilution required.

The surrogate recovery could not be reliably calculated for the diluted analysis of sample SL-674-SA6-SB-2.5-3.5 (280-36535-19) because the extract was diluted beyond the ability to quantitate a recovery.

The RPD between the primary and confirmation columns exceeded 40% for 2,4-DB in sample SL-672-SA6-SB-4.0-5.0 (280-36535-16). The lower of the two values has been reported, as matrix interference is evident. The result in the analytical

Job ID: 280-36535-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

report has been flagged with “p”.

The MS/MSD analyses associated with prep batch 280-150882 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries and/or relative percent difference (RPD) data outside the QC control limits for Dichlorprop, Dinoseb, MCPA, MCPP and Silver (2,4,5-TP). The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7471B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

Low levels of Iron and Tin were detected in the method 6010C blank associated with prep batch 280-150486. The values should be considered estimates, and have been flagged “J”. Because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

A low level of Nickel was detected in the method 6020A blank associated with prep batch 280-150488. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

The 6010C MS/MSD analyses associated with prep batch 280-150486 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron, Manganese and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C MS/MSD analyses associated with prep batch 280-150486 were performed on sample SL-571-SA6-SB-4.0-5.0MS (280-36535-4), as requested. The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron, Manganese and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-150488 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-150488 were performed on sample SL-571-SA6-SB-4.0-5.0MS (280-36535-4), as requested. The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony and Barium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

Job ID: 280-36535-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
X	Surrogate is outside control limits
F	RPD of the MS and MSD exceeds the control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F	MS or MSD exceeds the control limits
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	1.3	J	11	0.80	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.4	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	1.2	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.3	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.3	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.6		0.0050	0.00074	ug/Kg	1		None	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	1.4	J B	4.4	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	19000	1.4	mg/Kg	1	☼	6010C	Total/NA
Boron	1.8	J	9.1	0.92	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	32	3.5	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5000		9.3	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	460	0.093	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	480		9.3	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	4000	J	6000	38	mg/Kg	1	☼	6010C	Total/NA
Sodium	87	J	470	55	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.46	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	1.2	J B	10	0.85	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		0.93	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.7	J	8.0	0.33	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.027	J	8.4	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.4	J	14	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	99	J	140	0.068	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.50	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.23	J	0.97	0.0091	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	36	0.073	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.8	J	20	0.0064	mg/Kg	1	☼	6020A	Total/NA
Copper	10	J	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	5.1	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.36	J	5.1	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.72		0.63	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.035	J	0.76	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J	0.44	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J	60	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	63	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.83		0.100	0.100	SU	1		9045D	Total/NA
Temperature	19.9		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — Lab Sample ID: 280-36535-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	1.0	J B	4.1	0.70	mg/Kg	1	☼	8015B	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — Lab Sample ID: 280-36535-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	18000	1.4	mg/Kg	1	☼	6010C	Total/NA
Boron	0.88	J	8.5	0.86	mg/Kg	1	☼	6010C	Total/NA
Calcium	1900		44	12	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	30	3.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	33	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4500		8.8	3.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	440	0.088	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	380		8.8	1.4	mg/Kg	1	☼	6010C	Total/NA
Potassium	2600	J	5600	36	mg/Kg	1	☼	6010C	Total/NA
Sodium	140	J	440	52	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.44	0.032	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J B	9.6	0.80	mg/Kg	1	☼	6010C	Total/NA
Titanium	990		0.88	0.12	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	7.6	0.31	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.019	J	8.4	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.4	J	14	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	76	J	130	0.068	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.61	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.13	J	0.96	0.0090	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	35	0.073	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.6	J	20	0.0064	mg/Kg	1	☼	6020A	Total/NA
Copper	6.7	J	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	4.7	J	33	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.69	J	5.1	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.79		0.63	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.029	J	0.76	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.44	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	35	J	60	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	47	J	110	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0084	J	0.022	0.0060	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.20		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-5

No Detections

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15000	J	18000	1.4	mg/Kg	1	☼	6010C	Total/NA
Boron	1.2	J	8.8	0.89	mg/Kg	1	☼	6010C	Total/NA
Calcium	1800		45	13	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	31	3.5	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	34	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4600		9.1	3.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	450	0.091	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	350		9.1	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700	J	5800	37	mg/Kg	1	☼	6010C	Total/NA
Sodium	150	J	450	54	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-971-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36535-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Strontium	15		0.45	0.033	mg/Kg	1	☼	6010C	Total/NA
Tin	1.4	J B	9.9	0.83	mg/Kg	1	☼	6010C	Total/NA
Titanium	970		0.90	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	7.8	0.32	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.017	J	8.7	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.4	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	76	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.62	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.13	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	6.7	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	4.9	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.89	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.59	J	0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.038	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	62	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	46	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0095	J	0.024	0.0066	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.29		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-571-SA6-SB-4.5MS — Lab Sample ID: 280-36535-7

No Detections

Client Sample ID: SL-971-SA6-SB-4.5 — Lab Sample ID: 280-36535-8

No Detections

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	1.7	J B	4.4	0.75	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.5	J	9.7	0.98	mg/Kg	1	☼	6010C	Total/NA
Calcium	1900		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	26	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4700		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	290	J	490	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	400		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3100	J	6400	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	83	J	500	59	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-572-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36535-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Strontium	14		0.49	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.0	J B	11	0.91	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		0.99	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	8.6	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.038	J	9.5	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.5	J	16	0.055	mg/Kg	1	☼	6020A	Total/NA
Barium	86	J	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.60	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.45	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	18	J	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J	23	0.0072	mg/Kg	1	☼	6020A	Total/NA
Copper	10	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	11	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.49	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.69	J	0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.049	J	0.86	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	33	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	89	J	120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0092	J	0.023	0.0064	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.37		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	0.84	J B	4.1	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	32	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	18	J	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4900		9.5	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	470	0.095	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	270		9.5	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700	J	6100	39	mg/Kg	1	☼	6010C	Total/NA
Sodium	200	J	470	56	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.47	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J B	10	0.86	mg/Kg	1	☼	6010C	Total/NA
Titanium	1100		0.94	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.91	J	8.1	0.33	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.021	J	8.8	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.8	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	72	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.48	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.10	J	1.0	0.0095	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-572-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36535-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	20	J	37	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.2	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	8.3	J	29	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	4.2	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.23	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	9.9	J B	29	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.72		0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	63	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	58	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.31		0.100	0.100	SU	1		9045D	Total/NA
Temperature	19.6		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-572-SA6-SB-3.0 — Lab Sample ID: 280-36535-13

No Detections

Client Sample ID: TB-120312 — Lab Sample ID: 280-36535-14

No Detections

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.45	J	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.1	J	11	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
C30-C40	2.0	J	11	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	3.4	J B	4.5	0.77	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-DB	13	J p	90	8.4	ug/Kg	1	☼	8151A	Total/NA
Aluminum	17000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.8	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	20000	B	35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	30	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4800		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	210		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	1800	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	240	J	520	61	mg/Kg	1	☼	6010C	Total/NA
Strontium	21		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J B	11	0.94	mg/Kg	1	☼	6010C	Total/NA
Titanium	1100		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.7	J	8.9	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.014	J	8.6	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.9	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-672-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36535-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	94	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.71	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.13	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA
Chromium	23	J	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.2	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	7.7	J	29	0.070	mg/Kg	1	☼	6020A	Total/NA
Lead	5.5	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.32	J	5.3	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.75		0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.073	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	42	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	52	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0073	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.09		0.100	0.100	SU	1		9045D	Total/NA
Temperature	19.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-672-SA6-SB-4.5 — Lab Sample ID: 280-36535-17

No Detections

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	1.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.0012	J	0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	5.8	J	11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.3	J	5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	9.9	B	4.4	0.75	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	180		19	6.3	ug/Kg	1	☼	8082A	Total/NA
Aluminum	18000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	3.8	J	10	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2900		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	21000	B	37	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	40	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5000		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	380	J	530	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	420		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3600	J	6900	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	140	J	540	64	mg/Kg	1	☼	6010C	Total/NA
Strontium	27		0.53	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	1.5	J B	12	0.98	mg/Kg	1	☼	6010C	Total/NA
Titanium	1100		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.7	J	9.3	0.38	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-674-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36535-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.018	J	8.5	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.7	J	15	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	130	J	140	0.069	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.67	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.48	J	0.98	0.0092	mg/Kg	1	☼	6020A	Total/NA
Chromium	23	J	36	0.074	mg/Kg	1	☼	6020A	Total/NA
Cobalt	7.1	J	21	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	14	J	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	7.5	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.32	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	17	J B	28	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.72		0.64	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.25	J	0.77	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J	0.45	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	41	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	71	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.010	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.01		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-674-SA6-SB-3.0 — Lab Sample ID: 280-36535-20

No Detections

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	12	J	110	12	ug/Kg	10	☼	8270C SIM	Total/NA
C30-C40	140		21	2.1	mg/Kg	2	☼	8015B	Total/NA
EFH (C21-C30)	53		11	2.1	mg/Kg	2	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	190	B	8.5	1.4	mg/Kg	2	☼	8015B	Total/NA

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1260	52		18	2.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	130		53	17	ug/Kg	1	☼	8082A	Total/NA
Aluminum	9900	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	2.4	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	3200		53	15	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	39	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4100		11	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	260	J	520	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	390		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2800	J	6700	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	530	62	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.52	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	2.0	J B	11	0.96	mg/Kg	1	☼	6010C	Total/NA
Titanium	810		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-559-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36535-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zirconium	1.7	J	9.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.061	J	8.6	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.9	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	77	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.36	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.42	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.6	J	21	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	15	J	29	0.070	mg/Kg	1	☼	6020A	Total/NA
Lead	47		34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.56	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.58	J	0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.14	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.21	J	0.45	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	28	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	78	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.25		0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.37		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	5.8	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.1	J	5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	7.6	B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	2.2	J	9.5	0.96	mg/Kg	1	☼	6010C	Total/NA
Calcium	1800		49	14	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	33	3.7	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	36	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		9.8	3.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	350	J	480	0.098	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		9.8	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3500	J	6300	40	mg/Kg	1	☼	6010C	Total/NA
Sodium	94	J	490	58	mg/Kg	1	☼	6010C	Total/NA
Strontium	19		0.48	0.035	mg/Kg	1	☼	6010C	Total/NA
Tin	1.1	J B	11	0.89	mg/Kg	1	☼	6010C	Total/NA
Titanium	970		0.97	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.5	J	8.4	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.015	J	8.3	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.2	J	14	0.048	mg/Kg	1	☼	6020A	Total/NA
Barium	110	J	130	0.067	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.63	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.23	J	0.95	0.0089	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-559-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36535-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	19	J	35	0.072	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.2	J	20	0.0063	mg/Kg	1	☼	6020A	Total/NA
Copper	9.8	J	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	5.1	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.0	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J B	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.57	J	0.62	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.043	J	0.75	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.29	J	0.44	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	34	J	59	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	55	J	100	0.30	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.28		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-559-SA6-SB-4.5 — Lab Sample ID: 280-36535-25

No Detections

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	5.0	J	100	3.2	ug/Kg	10	☼	8270C SIM	Total/NA
Acenaphthylene	6.0	J	100	1.8	ug/Kg	10	☼	8270C SIM	Total/NA
Anthracene	22	J	100	7.5	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	73	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
Fluoranthene	17	J	100	10	ug/Kg	10	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	14	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
Phenanthrene	12	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
Pyrene	15	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
BaP Equivalence	1.4		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	330		52	5.2	mg/Kg	5	☼	8015B	Total/NA
EFH (C15-C20)	5.2	J	26	5.2	mg/Kg	5	☼	8015B	Total/NA
EFH (C21-C30)	270		26	5.2	mg/Kg	5	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	600	B	21	3.5	mg/Kg	5	☼	8015B	Total/NA

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	3500		350	110	ug/Kg	20	☼	8082A	Total/NA
Aluminum	9700	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.1	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	2000		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	14000	B	36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J	39	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4200		10	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	250	J	520	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	400		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3100	J	6700	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	520	62	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.52	0.038	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-574-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36535-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tin	1.4	J B	11	0.96	mg/Kg	1	☼	6010C	Total/NA
Titanium	860		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	9.0	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.069	J	8.8	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.6	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	93	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.37	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.87	J	1.0	0.0095	mg/Kg	1	☼	6020A	Total/NA
Chromium	14	J	37	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.9	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	12	J	29	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	36		34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.43	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	9.7	J B	29	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.52	J	0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.099	J	0.80	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.21	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	27	J	63	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	100	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.048		0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.65		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	14		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.4	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	18	B	4.1	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	18000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	1800		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	21000	B	34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5300		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	170	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	220		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2100	J	6400	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	96	J	500	59	mg/Kg	1	☼	6010C	Total/NA
Strontium	15		0.50	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J B	11	0.91	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.0	J	8.6	0.35	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.6	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	75	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.72	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.11	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-574-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36535-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	21	J	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.3	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	9.1	J	29	0.070	mg/Kg	1	☼	6020A	Total/NA
Lead	5.4	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.35	J	5.3	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.0		0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.025	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.23	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	39	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	56	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0081	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.34		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-574-SA6-SB-3.0 — Lab Sample ID: 280-36535-30

No Detections

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36535-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.38	J	10	0.27	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.35	J	10	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.17	J	10	0.16	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.19	J	10	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	2.3	J	10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	2.7	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	2.4	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.75	J	10	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.6	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	1.8	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.24		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	7.8	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	2.2	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	10	B	4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36535-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	2.4	J	9.6	0.97	mg/Kg	1	☼	6010C	Total/NA
Calcium	1800		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	16000	B	34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3600		9.9	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	490	0.099	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		9.9	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3400	J	6300	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	68	J	500	58	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-664-SA6-SB-2.0-3.0 (Continued) — Lab Sample ID: 280-36535-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Strontium	16		0.49	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.1	J B	11	0.90	mg/Kg	1	☼	6010C	Total/NA
Titanium	860		0.99	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.8	J	8.5	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.024	J	8.9	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.9	J	15	0.052	mg/Kg	1	☼	6020A	Total/NA
Barium	92	J	140	0.072	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.51	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.49	J	1.0	0.0096	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	38	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.4	J	21	0.0068	mg/Kg	1	☼	6020A	Total/NA
Copper	9.4	J	30	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	6.1	J	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.47	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J B	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.64	J	0.67	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.28	J	0.81	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.24	J	0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	29	J	63	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	57	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.010	J	0.025	0.0069	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.62		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-664-SA6-SB-2.5 — Lab Sample ID: 280-36535-33

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8081B	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36535-1	SL-571-SA6-SB-0.0-0.5	Solid	12/03/12 09:05	12/04/12 09:00
280-36535-2	SL-571-SA6-SB-0.0-0.5	Solid	12/03/12 09:05	12/04/12 09:00
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Solid	12/03/12 09:10	12/04/12 09:00
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Solid	12/03/12 09:10	12/04/12 09:00
280-36535-5	SL-971-SA6-SB-4.0-5.0	Solid	12/03/12 09:20	12/04/12 09:00
280-36535-6	SL-971-SA6-SB-4.0-5.0	Solid	12/03/12 09:20	12/04/12 09:00
280-36535-7	SL-571-SA6-SB-4.5MS	Solid	12/03/12 09:09	12/04/12 09:00
280-36535-8	SL-971-SA6-SB-4.5	Solid	12/03/12 09:19	12/04/12 09:00
280-36535-9	SL-572-SA6-SB-0.0-0.5	Solid	12/03/12 10:40	12/04/12 09:00
280-36535-10	SL-572-SA6-SB-0.0-0.5	Solid	12/03/12 10:40	12/04/12 09:00
280-36535-11	SL-572-SA6-SB-2.5-3.5	Solid	12/03/12 10:55	12/04/12 09:00
280-36535-12	SL-572-SA6-SB-2.5-3.5	Solid	12/03/12 10:55	12/04/12 09:00
280-36535-13	SL-572-SA6-SB-3.0	Solid	12/03/12 10:54	12/04/12 09:00
280-36535-14	TB-120312	Water	12/03/12 08:00	12/04/12 09:00
280-36535-15	SL-672-SA6-SB-4.0-5.0	Solid	12/03/12 10:45	12/04/12 09:00
280-36535-16	SL-672-SA6-SB-4.0-5.0	Solid	12/03/12 10:45	12/04/12 09:00
280-36535-17	SL-672-SA6-SB-4.5	Solid	12/03/12 10:50	12/04/12 09:00
280-36535-18	SL-674-SA6-SB-2.5-3.5	Solid	12/03/12 13:45	12/04/12 09:00
280-36535-19	SL-674-SA6-SB-2.5-3.5	Solid	12/03/12 13:45	12/04/12 09:00
280-36535-20	SL-674-SA6-SB-3.0	Solid	12/03/12 13:50	12/04/12 09:00
280-36535-21	SL-559-SA6-SB-0.0-0.5	Solid	12/03/12 14:20	12/04/12 09:00
280-36535-22	SL-559-SA6-SB-0.0-0.5	Solid	12/03/12 14:20	12/04/12 09:00
280-36535-23	SL-559-SA6-SB-4.0-5.0	Solid	12/03/12 14:30	12/04/12 09:00
280-36535-24	SL-559-SA6-SB-4.0-5.0	Solid	12/03/12 14:30	12/04/12 09:00
280-36535-25	SL-559-SA6-SB-4.5	Solid	12/03/12 14:29	12/04/12 09:00
280-36535-26	SL-574-SA6-SB-0.0-0.5	Solid	12/03/12 13:00	12/04/12 09:00
280-36535-27	SL-574-SA6-SB-0.0-0.5	Solid	12/03/12 13:00	12/04/12 09:00
280-36535-28	SL-574-SA6-SB-2.5-3.5	Solid	12/03/12 13:15	12/04/12 09:00
280-36535-29	SL-574-SA6-SB-2.5-3.5	Solid	12/03/12 13:15	12/04/12 09:00
280-36535-30	SL-574-SA6-SB-3.0	Solid	12/03/12 13:14	12/04/12 09:00
280-36535-31	SL-664-SA6-SB-2.0-3.0	Solid	12/03/12 15:00	12/04/12 09:00
280-36535-32	SL-664-SA6-SB-2.0-3.0	Solid	12/03/12 15:00	12/04/12 09:00
280-36535-33	SL-664-SA6-SB-2.5	Solid	12/03/12 15:05	12/04/12 09:00

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-1**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Anthracene	ND		11	0.78	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Benzo[a]anthracene	ND		11	0.97	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Benzo[a]pyrene	**1.3**	**J**	11	0.80	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Benzo[b]fluoranthene	**1.4**	**J**	11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Benzo[g,h,i]perylene	**1.2**	**J**	11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Chrysene	**1.3**	**J**	11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Fluorene	ND		11	0.51	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Indeno[1,2,3-cd]pyrene	**1.3**	**J**	11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Naphthalene	ND		11	0.35	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*100*		*45 - 130*	*12/04/12 18:40*	*12/11/12 00:02*	*1*
Nitrobenzene-d5	*101*		*40 - 130*	*12/04/12 18:40*	*12/11/12 00:02*	*1*
Terphenyl-d14	*98*		*45 - 130*	*12/04/12 18:40*	*12/11/12 00:02*	*1*

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-3**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Benzo[a]anthracene	ND		10	0.91	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Benzo[a]pyrene	ND		10	0.75	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 00:27	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		45 - 130	12/04/12 18:40	12/11/12 00:27	1
Nitrobenzene-d5	95		40 - 130	12/04/12 18:40	12/11/12 00:27	1
Terphenyl-d14	84		45 - 130	12/04/12 18:40	12/11/12 00:27	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-5**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.8	0.25	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
2-Methylnaphthalene	ND		9.8	0.30	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Acenaphthene	ND		9.8	0.16	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Acenaphthylene	ND		9.8	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Anthracene	ND		9.8	0.70	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Benzo[a]anthracene	ND		9.8	0.88	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Benzo[a]pyrene	ND		9.8	0.72	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Benzo[b]fluoranthene	ND		9.8	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Benzo[g,h,i]perylene	ND		9.8	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Benzo[k]fluoranthene	ND		9.8	0.98	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Chrysene	ND		9.8	0.98	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Dibenz(a,h)anthracene	ND		9.8	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Fluoranthene	ND		9.8	0.98	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Fluorene	ND		9.8	0.46	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Indeno[1,2,3-cd]pyrene	ND		9.8	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Naphthalene	ND		9.8	0.32	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
N-Nitrosodimethylamine	ND		9.8	2.3	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Phenanthrene	ND		9.8	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1
Pyrene	ND		9.8	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 01:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		45 - 130	12/04/12 18:40	12/11/12 01:42	1
Nitrobenzene-d5	77		40 - 130	12/04/12 18:40	12/11/12 01:42	1
Terphenyl-d14	76		45 - 130	12/04/12 18:40	12/11/12 01:42	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-9**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Anthracene	ND		11	0.77	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Benzo[a]anthracene	ND		11	0.96	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Benzo[a]pyrene	ND		11	0.79	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Naphthalene	ND		11	0.35	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-9**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:06*	*1*
Nitrobenzene-d5	*99*		*40 - 130*	*12/04/12 18:40*	*12/11/12 02:06*	*1*
Terphenyl-d14	*86*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:06*	*1*

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-11**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:32*	*1*
Nitrobenzene-d5	*95*		*40 - 130*	*12/04/12 18:40*	*12/11/12 02:32*	*1*
Terphenyl-d14	*79*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:32*	*1*

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-15**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.29	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
2-Methylnaphthalene	**0.45**	**J**	11	0.34	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Anthracene	ND		11	0.79	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Benzo[a]anthracene	ND		11	0.99	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Benzo[a]pyrene	ND		11	0.82	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-15**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Naphthalene	**1.1**	**J**	11	0.36	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Phenanthrene	**1.5**	**J**	11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:56*	*1*
Nitrobenzene-d5	*100*		*40 - 130*	*12/04/12 18:40*	*12/11/12 02:56*	*1*
Terphenyl-d14	*87*		*45 - 130*	*12/04/12 18:40*	*12/11/12 02:56*	*1*

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-18**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.30	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
2-Methylnaphthalene	ND		11	0.35	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Anthracene	ND		11	0.82	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Benzo[a]pyrene	ND		11	0.84	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Benzo[b]fluoranthene	ND		11	1.4	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Benzo[g,h,i]perylene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Chrysene	**1.2**	**J**	11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Fluoranthene	**1.2**	**J**	11	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Fluorene	ND		11	0.53	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Indeno[1,2,3-cd]pyrene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Naphthalene	ND		11	0.37	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Phenanthrene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1
Pyrene	ND		11	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*45 - 130*	*12/04/12 18:40*	*12/11/12 03:21*	*1*
Nitrobenzene-d5	*112*		*40 - 130*	*12/04/12 18:40*	*12/11/12 03:21*	*1*
Terphenyl-d14	*95*		*45 - 130*	*12/04/12 18:40*	*12/11/12 03:21*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-21**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		110	2.8	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
2-Methylnaphthalene	ND		110	3.3	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Acenaphthene	ND		110	1.7	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Acenaphthylene	ND		110	1.8	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Anthracene	ND		110	7.7	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Benzo[a]anthracene	ND		110	9.6	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Benzo[a]pyrene	ND		110	7.9	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Benzo[b]fluoranthene	ND		110	13	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Benzo[g,h,i]perylene	**12**	**J**	110	12	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Benzo[k]fluoranthene	ND		110	11	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Chrysene	ND		110	11	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Dibenz(a,h)anthracene	ND		110	14	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Fluoranthene	ND		110	11	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Fluorene	ND		110	5.0	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Indeno[1,2,3-cd]pyrene	ND		110	12	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Naphthalene	ND		110	3.5	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
N-Nitrosodimethylamine	ND		110	26	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Phenanthrene	ND		110	12	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10
Pyrene	ND		110	12	ug/Kg	☼	12/04/12 18:40	12/11/12 03:46	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*	*D*	*45 - 130*	*12/04/12 18:40*	*12/11/12 03:46*	*10*
Nitrobenzene-d5	*83*	*D*	*40 - 130*	*12/04/12 18:40*	*12/11/12 03:46*	*10*
Terphenyl-d14	*68*	*D*	*45 - 130*	*12/04/12 18:40*	*12/11/12 03:46*	*10*

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-23**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Benzo[a]anthracene	ND		10	0.91	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Benzo[a]pyrene	ND		10	0.75	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Fluorene	ND		10	0.47	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 04:11	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		45 - 130	12/04/12 18:40	12/11/12 04:11	1
Nitrobenzene-d5	100		40 - 130	12/04/12 18:40	12/11/12 04:11	1
Terphenyl-d14	85		45 - 130	12/04/12 18:40	12/11/12 04:11	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-26**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		100	2.7	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
2-Methylnaphthalene	**5.0**	**J**	100	3.2	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Acenaphthene	ND		100	1.7	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Acenaphthylene	**6.0**	**J**	100	1.8	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Anthracene	**22**	**J**	100	7.5	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Benzo[a]anthracene	ND		100	9.3	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Benzo[a]pyrene	ND		100	7.7	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Benzo[b]fluoranthene	ND		100	12	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Benzo[g,h,i]perylene	**73**	**J**	100	11	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Benzo[k]fluoranthene	ND		100	10	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Chrysene	ND		100	10	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Dibenz(a,h)anthracene	ND		100	13	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Fluoranthene	**17**	**J**	100	10	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Fluorene	ND		100	4.9	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Indeno[1,2,3-cd]pyrene	**14**	**J**	100	11	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Naphthalene	ND		100	3.4	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
N-Nitrosodimethylamine	ND		100	25	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Phenanthrene	**12**	**J**	100	11	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10
Pyrene	**15**	**J**	100	11	ug/Kg	☼	12/04/12 18:40	12/11/12 04:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84	D	45 - 130	12/04/12 18:40	12/11/12 04:36	10
Nitrobenzene-d5	128	D	40 - 130	12/04/12 18:40	12/11/12 04:36	10
Terphenyl-d14	90	D	45 - 130	12/04/12 18:40	12/11/12 04:36	10

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-28**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Acenaphthene	ND		10	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Acenaphthylene	ND		10	0.18	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Benzo[a]anthracene	ND		10	0.93	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Fluorene	ND		10	0.49	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Naphthalene	ND		10	0.34	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-28**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*45 - 130*	*12/04/12 18:40*	*12/11/12 05:01*	*1*
Nitrobenzene-d5	*103*		*40 - 130*	*12/04/12 18:40*	*12/11/12 05:01*	*1*
Terphenyl-d14	*84*		*45 - 130*	*12/04/12 18:40*	*12/11/12 05:01*	*1*

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-31**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.38**	**J**	10	0.27	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
2-Methylnaphthalene	**0.35**	**J**	10	0.32	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Acenaphthene	**0.17**	**J**	10	0.16	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Acenaphthylene	**0.19**	**J**	10	0.17	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Benzo[b]fluoranthene	**2.3**	**J**	10	1.2	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Chrysene	**2.7**	**J**	10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Fluoranthene	**2.4**	**J**	10	1.0	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Naphthalene	**0.75**	**J**	10	0.33	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Phenanthrene	**1.6**	**J**	10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1
Pyrene	**1.8**	**J**	10	1.1	ug/Kg	☼	12/04/12 18:40	12/11/12 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*45 - 130*	*12/04/12 18:40*	*12/11/12 05:26*	*1*
Nitrobenzene-d5	*105*		*40 - 130*	*12/04/12 18:40*	*12/11/12 05:26*	*1*
Terphenyl-d14	*89*		*45 - 130*	*12/04/12 18:40*	*12/11/12 05:26*	*1*

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-1**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**1.6**		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-3**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-5**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-9**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-11**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-15**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-18**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**0.0012**	**J**	0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-21**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-23**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-26**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**1.4**		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-28**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-31**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.24		0.0050	0.00074	ug/Kg			12/13/12 15:27	1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: SL-571-SA6-SB-4.5MS — **Lab Sample ID: 280-36535-7**
Date Collected: 12/03/12 09:09 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/04/12 20:12	12/06/12 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*77 - 123*	*12/04/12 20:12*	*12/06/12 00:41*	*1*

Client Sample ID: SL-971-SA6-SB-4.5 — **Lab Sample ID: 280-36535-8**
Date Collected: 12/03/12 09:19 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.1	0.36	mg/Kg	☼	12/04/12 20:12	12/06/12 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*77 - 123*	*12/04/12 20:12*	*12/06/12 02:11*	*1*

Client Sample ID: SL-572-SA6-SB-3.0 — **Lab Sample ID: 280-36535-13**
Date Collected: 12/03/12 10:54 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/04/12 20:12	12/06/12 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*77 - 123*	*12/04/12 20:12*	*12/06/12 14:43*	*1*

Client Sample ID: TB-120312 — **Lab Sample ID: 280-36535-14**
Date Collected: 12/03/12 08:00 — **Matrix: Water**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*82 - 110*		*12/05/12 18:45*	*1*

Client Sample ID: SL-672-SA6-SB-4.5 — **Lab Sample ID: 280-36535-17**
Date Collected: 12/03/12 10:50 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.33	mg/Kg	☼	12/04/12 20:12	12/06/12 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*77 - 123*	*12/04/12 20:12*	*12/06/12 15:13*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: SL-674-SA6-SB-3.0 — **Lab Sample ID: 280-36535-20**
Date Collected: 12/03/12 13:50 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/04/12 20:12	12/06/12 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*77 - 123*	*12/04/12 20:12*	*12/06/12 15:43*	*1*

Client Sample ID: SL-559-SA6-SB-4.5 — **Lab Sample ID: 280-36535-25**
Date Collected: 12/03/12 14:29 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.99	0.32	mg/Kg	☼	12/04/12 20:12	12/06/12 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*77 - 123*	*12/04/12 20:12*	*12/06/12 16:12*	*1*

Client Sample ID: SL-574-SA6-SB-3.0 — **Lab Sample ID: 280-36535-30**
Date Collected: 12/03/12 13:14 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.1	0.37	mg/Kg	☼	12/04/12 20:12	12/06/12 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*77 - 123*	*12/04/12 20:12*	*12/06/12 16:41*	*1*

Client Sample ID: SL-664-SA6-SB-2.5 — **Lab Sample ID: 280-36535-33**
Date Collected: 12/03/12 15:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.2	0.39	mg/Kg	☼	12/04/12 20:12	12/06/12 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*77 - 123*	*12/04/12 20:12*	*12/06/12 17:11*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-1**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		11	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1
EFH (C15-C20)	ND		5.4	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1
EFH (C21-C30)	ND		5.4	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1
Total Petroleum Hydrocarbons (C8-C40)	**1.4**	**J B**	4.4	0.74	mg/Kg	☼	12/04/12 20:25	12/07/12 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*49 - 115*	*12/04/12 20:25*	*12/07/12 19:44*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-3**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1
EFH (C21-C30)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1
Total Petroleum Hydrocarbons (C8-C40)	**1.0**	**J B**	4.1	0.70	mg/Kg	☼	12/04/12 20:25	12/07/12 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*49 - 115*	*12/04/12 20:25*	*12/07/12 20:08*	*1*

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-5**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1
EFH (C21-C30)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1
Total Petroleum Hydrocarbons (C8-C40)	ND		4.0	0.69	mg/Kg	☼	12/04/12 20:25	12/07/12 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*49 - 115*	*12/04/12 20:25*	*12/07/12 21:22*	*1*

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-9**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		11	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1
EFH (C12-C14)	ND		5.5	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1
EFH (C15-C20)	ND		5.5	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1
EFH (C21-C30)	ND		5.5	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1
EFH (C8-C11)	ND		5.5	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1
Total Petroleum Hydrocarbons (C8-C40)	**1.7**	**J B**	4.4	0.75	mg/Kg	☼	12/04/12 20:25	12/07/12 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*49 - 115*	*12/04/12 20:25*	*12/07/12 21:46*	*1*

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-11**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1
EFH (C21-C30)	ND		5.2	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1
Total Petroleum Hydrocarbons (C8-C40)	**0.84**	**J B**	4.1	0.70	mg/Kg	☼	12/04/12 20:25	12/07/12 22:10	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		49 - 115	12/04/12 20:25	12/07/12 22:10	1

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-15**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	2.0	J	11	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1
EFH (C12-C14)	ND		5.7	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1
EFH (C15-C20)	ND		5.7	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1
EFH (C21-C30)	ND		5.7	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1
EFH (C8-C11)	ND		5.7	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1
Total Petroleum Hydrocarbons (C8-C40)	3.4	J B	4.5	0.77	mg/Kg	☼	12/04/12 20:25	12/07/12 22:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		49 - 115	12/04/12 20:25	12/07/12 22:35	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-18**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	5.8	J	11	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1
EFH (C12-C14)	ND		5.6	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1
EFH (C15-C20)	ND		5.6	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1
EFH (C21-C30)	3.3	J	5.6	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1
EFH (C8-C11)	ND		5.6	1.1	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1
Total Petroleum Hydrocarbons (C8-C40)	9.9	B	4.4	0.75	mg/Kg	☼	12/04/12 20:25	12/07/12 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		49 - 115	12/04/12 20:25	12/07/12 22:59	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-21**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	140		21	2.1	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2
EFH (C12-C14)	ND		11	2.1	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2
EFH (C15-C20)	ND		11	2.1	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2
EFH (C21-C30)	53		11	2.1	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2
EFH (C8-C11)	ND		11	2.1	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2
Total Petroleum Hydrocarbons (C8-C40)	190	B	8.5	1.4	mg/Kg	☼	12/04/12 20:25	12/10/12 11:31	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		49 - 115	12/04/12 20:25	12/10/12 11:31	2

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-23**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	5.8	J	10	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1
EFH (C15-C20)	ND		5.0	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-23**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	1.1	J	5.0	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1
Total Petroleum Hydrocarbons (C8-C40)	7.6	B	4.0	0.68	mg/Kg	☼	12/04/12 20:25	12/07/12 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*49 - 115*	*12/04/12 20:25*	*12/07/12 23:48*	*1*

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-26**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	330		52	5.2	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5
EFH (C12-C14)	ND		26	5.2	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5
EFH (C15-C20)	5.2	J	26	5.2	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5
EFH (C21-C30)	270		26	5.2	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5
EFH (C8-C11)	ND		26	5.2	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5
Total Petroleum Hydrocarbons (C8-C40)	600	B	21	3.5	mg/Kg	☼	12/04/12 20:25	12/10/12 13:09	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*	*D*	*49 - 115*	*12/04/12 20:25*	*12/10/12 13:09*	*5*

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-28**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	14		10	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1
EFH (C21-C30)	3.4	J	5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1
Total Petroleum Hydrocarbons (C8-C40)	18	B	4.1	0.70	mg/Kg	☼	12/04/12 20:25	12/08/12 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*49 - 115*	*12/04/12 20:25*	*12/08/12 00:37*	*1*

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-31**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	7.8	J	10	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1
EFH (C21-C30)	2.2	J	5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1
Total Petroleum Hydrocarbons (C8-C40)	10	B	4.1	0.69	mg/Kg	☼	12/04/12 20:25	12/08/12 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*49 - 115*	*12/04/12 20:25*	*12/08/12 01:01*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.6	0.60	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
4,4'-DDE	ND		3.6	0.26	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
4,4'-DDT	ND		3.6	0.65	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Aldrin	ND		1.9	0.27	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
alpha-BHC	ND		1.9	0.23	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
beta-BHC	ND		1.9	0.73	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
delta-BHC	ND		1.9	0.44	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Dieldrin	ND		3.6	0.23	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endosulfan I	ND		1.9	0.19	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endosulfan II	ND		3.6	0.31	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endosulfan sulfate	ND		3.6	0.30	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endrin	ND		3.6	0.34	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endrin aldehyde	ND		3.6	0.19	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Endrin ketone	ND		3.6	0.54	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
gamma-BHC (Lindane)	ND		1.9	0.51	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Heptachlor	ND		1.9	0.23	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Heptachlor epoxide	ND		1.9	0.47	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Methoxychlor	ND		7.3	0.49	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Technical Chlordane	ND		19	8.5	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1
Toxaphene	ND		55	17	ug/Kg	☼	12/06/12 16:10	12/10/12 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*20 - 120*	*12/06/12 16:10*	*12/10/12 22:38*	*1*
DCB Decachlorobiphenyl	*84*		*20 - 120*	*12/06/12 16:10*	*12/10/12 22:38*	*1*
Tetrachloro-m-xylene	*119*		*50 - 130*	*12/06/12 16:10*	*12/10/12 22:38*	*1*
Tetrachloro-m-xylene	*89*		*50 - 130*	*12/06/12 16:10*	*12/10/12 22:38*	*1*

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		38	6.3	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
4,4'-DDE	ND		38	2.7	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
4,4'-DDT	ND		38	6.8	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Aldrin	ND		19	2.9	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
alpha-BHC	ND		19	2.5	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
beta-BHC	ND		19	7.6	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
delta-BHC	ND		19	4.6	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Dieldrin	ND		38	2.4	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endosulfan I	ND		19	2.0	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endosulfan II	ND		38	3.3	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endosulfan sulfate	ND		38	3.2	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endrin	ND		38	3.5	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endrin aldehyde	ND		38	2.0	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Endrin ketone	ND		38	5.6	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
gamma-BHC (Lindane)	ND		19	5.3	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Heptachlor	ND		19	2.5	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Heptachlor epoxide	ND		19	4.9	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Methoxychlor	ND		77	5.2	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10
Technical Chlordane	ND		190	89	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		570	180	ug/Kg	☼	12/06/12 16:10	12/11/12 00:02	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*41*	*D*	*20 - 120*	*12/06/12 16:10*	*12/11/12 00:02*	*10*
DCB Decachlorobiphenyl	*67*	*D*	*20 - 120*	*12/06/12 16:10*	*12/11/12 00:02*	*10*
Tetrachloro-m-xylene	*82*	*D*	*50 - 130*	*12/06/12 16:10*	*12/11/12 00:02*	*10*
Tetrachloro-m-xylene	*84*	*D*	*50 - 130*	*12/06/12 16:10*	*12/11/12 00:02*	*10*

Method: 8081B - Organochlorine Pesticides (GC) - RA

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mirex	ND		1.9	0.29	ug/Kg	☼	12/06/12 16:10	12/12/12 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*20 - 120*	*12/06/12 16:10*	*12/12/12 22:42*	*1*
DCB Decachlorobiphenyl	*87*		*20 - 120*	*12/06/12 16:10*	*12/12/12 22:42*	*1*
Tetrachloro-m-xylene	*111*		*50 - 130*	*12/06/12 16:10*	*12/12/12 22:42*	*1*
Tetrachloro-m-xylene	*77*		*50 - 130*	*12/06/12 16:10*	*12/12/12 22:42*	*1*

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mirex	ND		19	3.1	ug/Kg	☼	12/06/12 16:10	12/12/12 22:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*	*D*	*20 - 120*	*12/06/12 16:10*	*12/12/12 22:58*	*10*
DCB Decachlorobiphenyl	*56*	*D*	*20 - 120*	*12/06/12 16:10*	*12/12/12 22:58*	*10*
Tetrachloro-m-xylene	*76*	*D*	*50 - 130*	*12/06/12 16:10*	*12/12/12 22:58*	*10*
Tetrachloro-m-xylene	*70*	*D*	*50 - 130*	*12/06/12 16:10*	*12/12/12 22:58*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 1268	ND		34	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 5460	ND		51	17	ug/Kg	☼	12/06/12 16:10	12/10/12 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*12/06/12 16:10*	*12/10/12 12:14*	*1*
Tetrachloro-m-xylene	*103*		*45 - 120*	*12/06/12 16:10*	*12/10/12 12:14*	*1*

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1242	ND		17	9.2	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/06/12 16:10	12/10/12 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*45 - 120*	*12/06/12 16:10*	*12/10/12 12:35*	*1*
Tetrachloro-m-xylene	*100*		*45 - 120*	*12/06/12 16:10*	*12/10/12 12:35*	*1*

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/06/12 16:10	12/10/12 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*45 - 120*	*12/06/12 16:10*	*12/10/12 14:22*	*1*
Tetrachloro-m-xylene	*88*		*45 - 120*	*12/06/12 16:10*	*12/10/12 14:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-10**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1221	ND		37	17	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 1268	ND		37	4.4	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 5442	ND		55	36	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/06/12 16:10	12/10/12 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*45 - 120*	*12/06/12 16:10*	*12/10/12 14:44*	*1*
Tetrachloro-m-xylene	*96*		*45 - 120*	*12/06/12 16:10*	*12/10/12 14:44*	*1*

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1242	ND		17	9.2	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/06/12 16:10	12/10/12 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*12/06/12 16:10*	*12/10/12 15:05*	*1*
Tetrachloro-m-xylene	*87*		*45 - 120*	*12/06/12 16:10*	*12/10/12 15:05*	*1*

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1232	ND		19	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1248	ND		19	6.1	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1254	ND		19	6.0	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 5442	ND		55	35	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/06/12 16:10	12/10/12 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*12/06/12 16:10*	*12/10/12 15:27*	*1*
Tetrachloro-m-xylene	*91*		*45 - 120*	*12/06/12 16:10*	*12/10/12 15:27*	*1*

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.8	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1232	ND		19	5.9	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1248	ND		19	6.4	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1254	**180**		19	6.3	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 5432	ND		57	18	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 5442	ND		57	37	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1
Aroclor 5460	ND		57	19	ug/Kg	☼	12/06/12 16:10	12/10/12 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*45 - 120*	*12/06/12 16:10*	*12/10/12 15:48*	*1*
Tetrachloro-m-xylene	*122*	*X*	*45 - 120*	*12/06/12 16:10*	*12/10/12 15:48*	*1*

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.4	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1221	ND		35	16	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1232	ND		18	5.4	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1242	ND		18	9.6	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1248	ND		18	5.9	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1254	ND		18	5.8	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1260	**52**		18	2.8	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 5432	ND		53	17	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 5442	ND		53	34	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1
Aroclor 5460	**130**		53	17	ug/Kg	☼	12/06/12 16:10	12/10/12 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*	*X*	*45 - 120*	*12/06/12 16:10*	*12/10/12 16:09*	*1*
Tetrachloro-m-xylene	*101*		*45 - 120*	*12/06/12 16:10*	*12/10/12 16:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-24**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1242	ND		17	9.2	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 5432	ND		50	16	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 5442	ND		50	33	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1
Aroclor 5460	ND		50	17	ug/Kg	☼	12/06/12 16:10	12/10/12 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*45 - 120*	*12/06/12 16:10*	*12/10/12 16:31*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/06/12 16:10*	*12/10/12 16:31*	*1*

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		350	110	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1221	ND		680	320	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1232	ND		350	110	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1242	ND		350	190	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1248	ND		350	120	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1254	**3500**		350	110	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1260	ND		350	55	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1262	ND		680	240	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 1268	ND		680	82	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 5432	ND		1000	330	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 5442	ND		1000	670	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20
Aroclor 5460	ND		1000	340	ug/Kg	☼	12/06/12 16:10	12/13/12 07:19	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*D*	*45 - 120*	*12/06/12 16:10*	*12/13/12 07:19*	*20*
Tetrachloro-m-xylene	*59*	*D*	*45 - 120*	*12/06/12 16:10*	*12/13/12 07:19*	*20*

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1232	ND		17	5.3	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1242	ND		17	9.4	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1248	ND		17	5.8	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1254	ND		17	5.7	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/06/12 16:10	12/10/12 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*45 - 120*	*12/06/12 16:10*	*12/10/12 17:13*	*1*
Tetrachloro-m-xylene	*71*		*45 - 120*	*12/06/12 16:10*	*12/10/12 17:13*	*1*

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-32**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1242	ND		17	9.1	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1248	ND		17	5.6	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1254	ND		17	5.5	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 5432	ND		50	16	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 5442	ND		50	32	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1
Aroclor 5460	ND		50	17	ug/Kg	☼	12/06/12 16:10	12/10/12 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*46*		*45 - 120*	*12/06/12 16:10*	*12/10/12 17:35*	*1*
Tetrachloro-m-xylene	*86*		*45 - 120*	*12/06/12 16:10*	*12/10/12 17:35*	*1*

Method: 8151A - Herbicides (GC)

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		22	2.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
2,4-D	ND		45	16	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
2,4-DB	**13**	**J p**	90	8.4	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
Dalapon	ND		110	1.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
Dicamba	ND		45	1.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
Dichlorprop	ND		45	3.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
Dinoseb	ND		45	1.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
MCPA	ND		7300	2200	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
MCPP	ND		7300	2200	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1
Silvex (2,4,5-TP)	ND		22	1.6	ug/Kg	☼	12/06/12 20:50	12/10/12 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*83*		*50 - 150*	*12/06/12 20:50*	*12/10/12 19:17*	*1*
2,4-Dichlorophenylacetic acid	*74*		*50 - 150*	*12/06/12 20:50*	*12/10/12 19:17*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 8151A - Herbicides (GC)

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110	13	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
2,4-D	ND		230	79	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
2,4-DB	ND		450	42	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
Dalapon	ND		570	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
Dicamba	ND		230	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
Dichlorprop	ND		230	18	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
Dinoseb	ND		230	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
MCPA	ND		37000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
MCPP	ND		37000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5
Silvex (2,4,5-TP)	ND		110	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 19:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*90*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 19:40*	*5*
2,4-Dichlorophenylacetic acid	*61*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 19:40*	*5*

Method: 6010C - Metals (ICP)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12000**	**J**	19000	1.4	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Boron	**1.8**	**J**	9.1	0.92	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Calcium	**2200**		47	13	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Iron	**17000**	**B**	32	3.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Lithium	**25**	**J**	35	0.28	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Magnesium	**5000**		9.3	3.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Manganese	**300**	**J**	460	0.093	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Phosphorus	**480**		9.3	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Potassium	**4000**	**J**	6000	38	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Sodium	**87**	**J**	470	55	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Strontium	**14**		0.46	0.034	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Tin	**1.2**	**J B**	10	0.85	mg/Kg	☼	12/05/12 13:00	12/06/12 11:32	1
Titanium	**1000**		0.93	0.13	mg/Kg	☼	12/05/12 13:00	12/07/12 18:56	1
Zirconium	**1.7**	**J**	8.0	0.33	mg/Kg	☼	12/05/12 13:00	12/07/12 18:56	1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14000**	**J**	18000	1.4	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Boron	**0.88**	**J**	8.5	0.86	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Calcium	**1900**		44	12	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Iron	**18000**	**B**	30	3.3	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Lithium	**25**	**J**	33	0.26	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Magnesium	**4500**		8.8	3.3	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Manganese	**270**	**J**	440	0.088	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Phosphorus	**380**		8.8	1.4	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Potassium	**2600**	**J**	5600	36	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Sodium	**140**	**J**	440	52	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium	14		0.44	0.032	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Tin	1.3	J B	9.6	0.80	mg/Kg	☼	12/05/12 13:00	12/06/12 11:34	1
Titanium	990		0.88	0.12	mg/Kg	☼	12/05/12 13:00	12/07/12 18:59	1
Zirconium	1.4	J	7.6	0.31	mg/Kg	☼	12/05/12 13:00	12/07/12 18:59	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000	J	18000	1.4	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Boron	1.2	J	8.8	0.89	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Calcium	1800		45	13	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Iron	18000	B	31	3.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Lithium	25	J	34	0.27	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Magnesium	4600		9.1	3.4	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Manganese	270	J	450	0.091	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Phosphorus	350		9.1	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Potassium	2700	J	5800	37	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Sodium	150	J	450	54	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Strontium	15		0.45	0.033	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Tin	1.4	J B	9.9	0.83	mg/Kg	☼	12/05/12 13:00	12/06/12 11:41	1
Titanium	970		0.90	0.13	mg/Kg	☼	12/05/12 13:00	12/07/12 19:05	1
Zirconium	1.5	J	7.8	0.32	mg/Kg	☼	12/05/12 13:00	12/07/12 19:05	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-10**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	20000	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Boron	1.5	J	9.7	0.98	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Calcium	1900		50	14	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Iron	17000	B	34	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Lithium	26	J	37	0.30	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Magnesium	4700		10	3.7	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Manganese	290	J	490	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Phosphorus	400		10	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Potassium	3100	J	6400	41	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Sodium	83	J	500	59	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Strontium	14		0.49	0.036	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Tin	1.0	J B	11	0.91	mg/Kg	☼	12/05/12 13:00	12/06/12 11:44	1
Titanium	1000		0.99	0.14	mg/Kg	☼	12/05/12 13:00	12/07/12 19:18	1
Zirconium	1.1	J	8.6	0.35	mg/Kg	☼	12/05/12 13:00	12/07/12 19:18	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	19000	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Boron	ND		9.2	0.93	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Calcium	2400		47	13	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18000	B	32	3.6	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Lithium	18	J	35	0.28	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Magnesium	4900		9.5	3.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Manganese	270	J	470	0.095	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Phosphorus	270		9.5	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Potassium	2700	J	6100	39	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Sodium	200	J	470	56	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Strontium	14		0.47	0.034	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Tin	1.3	J B	10	0.86	mg/Kg	☼	12/05/12 13:00	12/06/12 11:46	1
Titanium	1100		0.94	0.13	mg/Kg	☼	12/05/12 13:00	12/07/12 19:20	1
Zirconium	0.91	J	8.1	0.33	mg/Kg	☼	12/05/12 13:00	12/07/12 19:20	1

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000	J	21000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Boron	1.8	J	10	1.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Calcium	2100		52	15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Iron	20000	B	35	3.9	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Lithium	30	J	38	0.31	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Magnesium	4800		10	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Manganese	240	J	510	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Phosphorus	210		10	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Potassium	1800	J	6600	42	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Sodium	240	J	520	61	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Strontium	21		0.51	0.037	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Tin	1.3	J B	11	0.94	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Titanium	1100		1.0	0.15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:03	1
Zirconium	1.7	J	8.9	0.37	mg/Kg	☼	12/05/12 13:00	12/07/12 19:23	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	18000	J	22000	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Boron	3.8	J	10	1.1	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Calcium	2900		54	15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Iron	21000	B	37	4.1	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Lithium	24	J	40	0.32	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Magnesium	5000		11	4.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Manganese	380	J	530	0.11	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Phosphorus	420		11	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Potassium	3600	J	6900	44	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Sodium	140	J	540	64	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Strontium	27		0.53	0.039	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Tin	1.5	J B	12	0.98	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Titanium	1100		1.1	0.15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:05	1
Zirconium	2.7	J	9.3	0.38	mg/Kg	☼	12/05/12 13:00	12/07/12 19:25	1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9900	J	21000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Boron	2.4	J	10	1.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Calcium	3200		53	15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Iron	18000	B	36	4.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Lithium	20	J	39	0.32	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Magnesium	4100		11	3.9	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Manganese	260	J	520	0.11	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Phosphorus	390		11	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Potassium	2800	J	6700	43	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Sodium	120	J	530	62	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Strontium	16		0.52	0.038	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Tin	2.0	J B	11	0.96	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Titanium	810		1.0	0.15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:08	1
Zirconium	1.7	J	9.1	0.37	mg/Kg	☼	12/05/12 13:00	12/07/12 19:27	1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-24**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000	J	20000	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Boron	2.2	J	9.5	0.96	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Calcium	1800		49	14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Iron	18000	B	33	3.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Lithium	23	J	36	0.29	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Magnesium	4300		9.8	3.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Manganese	350	J	480	0.098	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Phosphorus	330		9.8	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Potassium	3500	J	6300	40	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Sodium	94	J	490	58	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Strontium	19		0.48	0.035	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Tin	1.1	J B	11	0.89	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Titanium	970		0.97	0.14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:10	1
Zirconium	2.5	J	8.4	0.35	mg/Kg	☼	12/05/12 13:00	12/07/12 19:30	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9700	J	21000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Boron	1.1	J	10	1.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Calcium	2000		52	15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Iron	14000	B	36	4.0	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Lithium	21	J	39	0.31	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Magnesium	4200		10	3.9	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Manganese	250	J	520	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Phosphorus	400		10	1.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Potassium	3100	J	6700	43	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Sodium	130	J	520	62	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Strontium	14		0.52	0.038	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Tin	1.4	J B	11	0.96	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	860		1.0	0.15	mg/Kg	☼	12/05/12 13:00	12/06/12 12:12	1
Zirconium	1.1	J	9.0	0.37	mg/Kg	☼	12/05/12 13:00	12/07/12 19:32	1

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	18000	J	20000	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Boron	ND		9.7	0.98	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Calcium	1800		50	14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Iron	21000	B	34	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Lithium	24	J	37	0.30	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Magnesium	5300		10	3.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Manganese	170	J	500	0.10	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Phosphorus	220		10	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Potassium	2100	J	6400	41	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Sodium	96	J	500	59	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Strontium	15		0.50	0.036	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Tin	1.6	J B	11	0.91	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Titanium	1000		1.0	0.14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:15	1
Zirconium	1.0	J	8.6	0.35	mg/Kg	☼	12/05/12 13:00	12/07/12 19:35	1

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-32**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	20000	1.5	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Boron	2.4	J	9.6	0.97	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Calcium	1800		50	14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Iron	16000	B	34	3.8	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Lithium	20	J	37	0.30	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Magnesium	3600		9.9	3.7	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Manganese	270	J	490	0.099	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Phosphorus	330		9.9	1.6	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Potassium	3400	J	6300	41	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Sodium	68	J	500	58	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Strontium	16		0.49	0.036	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Tin	1.1	J B	11	0.90	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Titanium	860		0.99	0.14	mg/Kg	☼	12/05/12 13:00	12/06/12 12:17	1
Zirconium	1.8	J	8.5	0.35	mg/Kg	☼	12/05/12 13:00	12/07/12 19:37	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.027	J	8.4	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Arsenic	3.4	J	14	0.049	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Barium	99	J	140	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.50	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Cadmium	0.23	J	0.97	0.0091	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Chromium	17	J	36	0.073	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Cobalt	5.8	J	20	0.0064	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Copper	10	J	28	0.069	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Lead	5.1	J	33	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Molybdenum	0.36	J	5.1	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Nickel	12	J B	28	0.024	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Selenium	0.72		0.63	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Silver	0.035	J	0.76	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Thallium	0.26	J	0.44	0.0034	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Vanadium	31	J	60	0.037	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1
Zinc	63	J	110	0.31	mg/Kg	☼	12/05/12 13:00	12/05/12 22:29	1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.019	J	8.4	0.013	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Arsenic	4.4	J	14	0.049	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Barium	76	J	130	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Beryllium	0.61	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Cadmium	0.13	J	0.96	0.0090	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Chromium	19	J	35	0.073	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Cobalt	5.6	J	20	0.0064	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Copper	6.7	J	28	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Lead	4.7	J	33	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Molybdenum	0.69	J	5.1	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Nickel	12	J B	28	0.024	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Selenium	0.79		0.63	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Silver	0.029	J	0.76	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Thallium	0.27	J	0.44	0.0034	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Vanadium	35	J	60	0.037	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1
Zinc	47	J	110	0.30	mg/Kg	☼	12/05/12 13:00	12/05/12 22:32	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.017	J	8.7	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Arsenic	4.4	J	15	0.051	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Barium	76	J	140	0.071	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Beryllium	0.62	J	1.1	0.023	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Cadmium	0.13	J	1.0	0.0094	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Chromium	20	J	37	0.076	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Cobalt	5.7	J	21	0.0067	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Copper	6.7	J	29	0.071	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Lead	4.9	J	34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Molybdenum	0.89	J	5.3	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Nickel	13	J B	29	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.59	J	0.66	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Silver	0.038	J	0.79	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Thallium	0.27	J	0.46	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Vanadium	36	J	62	0.039	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1
Zinc	46	J	110	0.32	mg/Kg	☼	12/05/12 13:00	12/05/12 22:41	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-10**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.038	J	9.5	0.015	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Arsenic	3.5	J	16	0.055	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Barium	86	J	150	0.077	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Beryllium	0.60	J	1.2	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Cadmium	0.45	J	1.1	0.010	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Chromium	18	J	40	0.083	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Cobalt	5.7	J	23	0.0072	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Copper	10	J	32	0.078	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Lead	11	J	37	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Molybdenum	0.49	J	5.8	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Nickel	12	J B	32	0.028	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Selenium	0.69	J	0.72	0.15	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Silver	0.049	J	0.86	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Thallium	0.27	J	0.50	0.0038	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Vanadium	33	J	68	0.042	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1
Zinc	89	J	120	0.35	mg/Kg	☼	12/05/12 13:00	12/05/12 22:44	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.021	J	8.8	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Arsenic	3.8	J	15	0.051	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Barium	72	J	140	0.071	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Beryllium	0.48	J	1.1	0.023	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Cadmium	0.10	J	1.0	0.0095	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Chromium	20	J	37	0.077	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Cobalt	6.2	J	21	0.0067	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Copper	8.3	J	29	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Lead	4.2	J	34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Molybdenum	0.23	J	5.4	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Nickel	9.9	J B	29	0.026	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Selenium	0.72		0.66	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Silver	ND		0.80	0.021	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Thallium	0.30	J	0.46	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Vanadium	36	J	63	0.039	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1
Zinc	58	J	110	0.32	mg/Kg	☼	12/05/12 13:00	12/05/12 22:47	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.014	J	8.6	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Arsenic	3.9	J	15	0.050	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Barium	94	J	140	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Beryllium	0.71	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Cadmium	0.13	J	0.99	0.0093	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Chromium	23	J	36	0.075	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Cobalt	5.2	J	21	0.0066	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Copper	7.7	J	29	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Lead	5.5	J	34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Molybdenum	0.32	J	5.3	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Nickel	12	J B	29	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Selenium	0.75		0.65	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Silver	0.073	J	0.78	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Thallium	0.26	J	0.46	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Vanadium	42	J	61	0.038	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1
Zinc	52	J	110	0.31	mg/Kg	☼	12/05/12 13:00	12/05/12 22:50	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.018	J	8.5	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Arsenic	3.7	J	15	0.049	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Barium	130	J	140	0.069	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Beryllium	0.67	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Cadmium	0.48	J	0.98	0.0092	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Chromium	23	J	36	0.074	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Cobalt	7.1	J	21	0.0065	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Copper	14	J	28	0.069	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Lead	7.5	J	33	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Molybdenum	0.32	J	5.2	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Nickel	17	J B	28	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Selenium	0.72		0.64	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Silver	0.25	J	0.77	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Thallium	0.30	J	0.45	0.0034	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Vanadium	41	J	61	0.038	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1
Zinc	71	J	110	0.31	mg/Kg	☼	12/05/12 13:00	12/05/12 23:02	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.061	J	8.6	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Arsenic	3.9	J	15	0.050	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Barium	77	J	140	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Beryllium	0.36	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Cadmium	0.42	J	0.99	0.0093	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Chromium	16	J	36	0.075	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Cobalt	5.6	J	21	0.0065	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Copper	15	J	29	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	47		34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Molybdenum	0.56	J	5.2	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Nickel	11	J B	29	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Selenium	0.58	J	0.65	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Silver	0.14	J	0.78	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Thallium	0.21	J	0.45	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Vanadium	28	J	61	0.038	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1
Zinc	78	J	110	0.31	mg/Kg	☼	12/05/12 13:00	12/05/12 23:04	1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-24**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.015	J	8.3	0.013	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Arsenic	3.2	J	14	0.048	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Barium	110	J	130	0.067	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Beryllium	0.63	J	1.0	0.021	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Cadmium	0.23	J	0.95	0.0089	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Chromium	19	J	35	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Cobalt	6.2	J	20	0.0063	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Copper	9.8	J	28	0.068	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Lead	5.1	J	32	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Molybdenum	0.41	J	5.0	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Nickel	13	J B	28	0.024	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Selenium	0.57	J	0.62	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Silver	0.043	J	0.75	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Thallium	0.29	J	0.44	0.0033	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Vanadium	34	J	59	0.037	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1
Zinc	55	J	100	0.30	mg/Kg	☼	12/05/12 13:00	12/05/12 23:07	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.069	J	8.8	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Arsenic	2.6	J	15	0.051	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Barium	93	J	140	0.071	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Beryllium	0.37	J	1.1	0.023	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Cadmium	0.87	J	1.0	0.0095	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Chromium	14	J	37	0.077	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Cobalt	4.9	J	21	0.0067	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Copper	12	J	29	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Lead	36		34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Molybdenum	0.43	J	5.3	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Nickel	9.7	J B	29	0.026	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Selenium	0.52	J	0.66	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Silver	0.099	J	0.80	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Thallium	0.21	J	0.46	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Vanadium	27	J	63	0.039	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1
Zinc	100	J	110	0.32	mg/Kg	☼	12/05/12 13:00	12/05/12 23:10	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.6	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Arsenic	3.6	J	15	0.050	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Barium	75	J	140	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Beryllium	0.72	J	1.1	0.022	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Cadmium	0.11	J	0.99	0.0093	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Chromium	21	J	36	0.075	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Cobalt	4.3	J	21	0.0066	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Copper	9.1	J	29	0.070	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Lead	5.4	J	34	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Molybdenum	0.35	J	5.3	0.017	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Nickel	11	J B	29	0.025	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Selenium	1.0		0.65	0.13	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Silver	0.025	J	0.78	0.020	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Thallium	0.23	J	0.46	0.0035	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Vanadium	39	J	61	0.038	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1
Zinc	56	J	110	0.31	mg/Kg	☼	12/05/12 13:00	12/05/12 23:13	1

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-32**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.024	J	8.9	0.014	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Arsenic	2.9	J	15	0.052	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Barium	92	J	140	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Beryllium	0.51	J	1.1	0.023	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Cadmium	0.49	J	1.0	0.0096	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Chromium	17	J	38	0.077	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Cobalt	5.4	J	21	0.0068	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Copper	9.4	J	30	0.072	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Lead	6.1	J	35	0.019	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Molybdenum	0.47	J	5.4	0.018	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Nickel	11	J B	30	0.026	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Selenium	0.64	J	0.67	0.14	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Silver	0.28	J	0.81	0.021	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Thallium	0.24	J	0.47	0.0036	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Vanadium	29	J	63	0.039	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1
Zinc	57	J	110	0.32	mg/Kg	☼	12/05/12 13:00	12/05/12 23:16	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0065	mg/Kg	☼	12/07/12 12:10	12/07/12 16:25	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0084	J	0.022	0.0060	mg/Kg	☼	12/07/12 12:10	12/07/12 16:27	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.024	0.0066	mg/Kg	☼	12/07/12 12:10	12/07/12 16:39	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-10**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0092	J	0.023	0.0064	mg/Kg	☼	12/07/12 12:10	12/07/12 16:56	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0065	mg/Kg	☼	12/07/12 12:10	12/07/12 16:59	1

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0073	J	0.024	0.0067	mg/Kg	☼	12/07/12 12:10	12/07/12 17:01	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.024	0.0067	mg/Kg	☼	12/07/12 12:10	12/07/12 17:03	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.25		0.025	0.0068	mg/Kg	☼	12/07/12 12:10	12/07/12 17:06	1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-24**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0065	mg/Kg	☼	12/07/12 12:10	12/07/12 17:08	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.025	0.0068	mg/Kg	☼	12/07/12 12:10	12/07/12 17:10	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0081	J	0.024	0.0067	mg/Kg	☼	12/07/12 12:10	12/07/12 17:13	1

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-32**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.025	0.0069	mg/Kg	☼	12/07/12 12:10	12/07/12 17:15	1

General Chemistry

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-1**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-2**
Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.83		0.100	0.100	SU			12/12/12 17:52	1
Temperature	19.9		1.00	1.00	Degrees C			12/12/12 17:52	1
Percent Moisture	10		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-3**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.6		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — **Lab Sample ID: 280-36535-4**
Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.20		0.100	0.100	SU			12/12/12 17:54	1
Temperature	20.4		1.00	1.00	Degrees C			12/12/12 17:54	1
Percent Moisture	3.6		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-5**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-6**
Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.29		0.100	0.100	SU			12/12/12 18:01	1
Temperature	20.2		1.00	1.00	Degrees C			12/12/12 18:01	1
Percent Moisture	3.4		0.10	0.10	%			12/07/12 12:50	1

General Chemistry

Client Sample ID: SL-571-SA6-SB-4.5MS — **Lab Sample ID: 280-36535-7**
Date Collected: 12/03/12 09:09 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.6		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-971-SA6-SB-4.5 — **Lab Sample ID: 280-36535-8**
Date Collected: 12/03/12 09:19 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-9**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-10**
Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.37		0.100	0.100	SU			12/12/12 18:02	1
Temperature	20.2		1.00	1.00	Degrees C			12/12/12 18:02	1
Percent Moisture	11		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-11**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-12**
Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.31		0.100	0.100	SU			12/12/12 18:03	1
Temperature	19.6		1.00	1.00	Degrees C			12/12/12 18:03	1
Percent Moisture	3.9		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-572-SA6-SB-3.0 — **Lab Sample ID: 280-36535-13**
Date Collected: 12/03/12 10:54 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-15**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:31	1

General Chemistry

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-16**
Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.09		0.100	0.100	SU			12/12/12 18:04	1
Temperature	19.5		1.00	1.00	Degrees C			12/12/12 18:04	1
Percent Moisture	13		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-672-SA6-SB-4.5 — **Lab Sample ID: 280-36535-17**
Date Collected: 12/03/12 10:50 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-18**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-19**
Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.01		0.100	0.100	SU			12/12/12 18:05	1
Temperature	20.2		1.00	1.00	Degrees C			12/12/12 18:05	1
Percent Moisture	13		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-674-SA6-SB-3.0 — **Lab Sample ID: 280-36535-20**
Date Collected: 12/03/12 13:50 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-21**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.9		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-22**
Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.37		0.100	0.100	SU			12/12/12 18:10	1
Temperature	20.3		1.00	1.00	Degrees C			12/12/12 18:10	1
Percent Moisture	7.9		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-23**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.4		0.10	0.10	%			12/10/12 11:31	1

General Chemistry

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36535-24**
Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.28		0.100	0.100	SU			12/12/12 18:12	1
Temperature	20.4		1.00	1.00	Degrees C			12/12/12 18:12	1
Percent Moisture	4.4		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-559-SA6-SB-4.5 — **Lab Sample ID: 280-36535-25**
Date Collected: 12/03/12 14:29 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.4		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-26**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36535-27**
Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.65		0.100	0.100	SU			12/12/12 18:14	1
Temperature	20.1		1.00	1.00	Degrees C			12/12/12 18:14	1
Percent Moisture	8.2		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-28**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.8		0.10	0.10	%			12/10/12 11:31	1

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36535-29**
Date Collected: 12/03/12 13:15 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.34		0.100	0.100	SU			12/12/12 18:15	1
Temperature	20.3		1.00	1.00	Degrees C			12/12/12 18:15	1
Percent Moisture	4.8		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-574-SA6-SB-3.0 — **Lab Sample ID: 280-36535-30**
Date Collected: 12/03/12 13:14 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.8		0.10	0.10	%			12/10/12 11:33	1

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-31**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		0.10	0.10	%			12/10/12 11:31	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

General Chemistry

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36535-32**
Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.62		0.100	0.100	SU			12/12/12 18:16	1
Temperature	20.4		1.00	1.00	Degrees C			12/12/12 18:16	1
Percent Moisture	5.7		0.10	0.10	%			12/07/12 12:50	1

Client Sample ID: SL-664-SA6-SB-2.5 — **Lab Sample ID: 280-36535-33**
Date Collected: 12/03/12 15:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		0.10	0.10	%			12/10/12 11:35	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-150439/1-A
Matrix: Solid
Analysis Batch: 151477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Acenaphthene	ND		10	0.16	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Acenaphthylene	ND		10	0.17	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Anthracene	ND		10	0.72	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Benzo[a]anthracene	ND		10	0.90	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Benzo[a]pyrene	ND		10	0.74	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Chrysene	ND		10	1.0	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Fluoranthene	ND		10	1.0	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Fluorene	ND		10	0.47	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Naphthalene	ND		10	0.32	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Phenanthrene	ND		10	1.1	ug/Kg		12/04/12 18:40	12/10/12 21:07	1
Pyrene	ND		10	1.1	ug/Kg		12/04/12 18:40	12/10/12 21:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*45 - 130*	*12/04/12 18:40*	*12/10/12 21:07*	*1*
Nitrobenzene-d5	*95*		*40 - 130*	*12/04/12 18:40*	*12/10/12 21:07*	*1*
Terphenyl-d14	*93*		*45 - 130*	*12/04/12 18:40*	*12/10/12 21:07*	*1*

Lab Sample ID: LCS 280-150439/2-A
Matrix: Solid
Analysis Batch: 151477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	29.5	30.8		ug/Kg		104	50 - 150
2-Methylnaphthalene	29.5	28.4		ug/Kg		96	30 - 120
Acenaphthene	29.5	28.0		ug/Kg		95	35 - 120
Acenaphthylene	29.5	28.0		ug/Kg		95	41 - 120
Anthracene	29.5	27.5		ug/Kg		93	43 - 120
Benzo[a]anthracene	29.5	26.8		ug/Kg		91	36 - 120
Benzo[a]pyrene	29.5	25.3		ug/Kg		86	20 - 120
Benzo[b]fluoranthene	29.5	27.1		ug/Kg		92	37 - 120
Benzo[g,h,i]perylene	29.5	26.5		ug/Kg		90	20 - 123
Benzo[k]fluoranthene	29.5	28.1		ug/Kg		95	46 - 120
Chrysene	29.5	29.6		ug/Kg		100	34 - 120
Dibenz(a,h)anthracene	29.5	27.2		ug/Kg		92	20 - 120
Fluoranthene	29.5	28.4		ug/Kg		96	45 - 120
Fluorene	29.5	27.4		ug/Kg		93	44 - 120
Indeno[1,2,3-cd]pyrene	29.5	25.1		ug/Kg		85	20 - 127
Naphthalene	29.5	29.4		ug/Kg		100	44 - 120
Phenanthrene	29.5	28.9		ug/Kg		98	44 - 120
Pyrene	29.5	28.5		ug/Kg		97	43 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-150439/2-A
Matrix: Solid
Analysis Batch: 151477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150439

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*93*		*45 - 130*
Nitrobenzene-d5	*98*		*40 - 130*
Terphenyl-d14	*102*		*45 - 130*

Lab Sample ID: 280-36535-3 MS
Matrix: Solid
Analysis Batch: 151477

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS
Prep Type: Total/NA
Prep Batch: 150439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	ND		30.1	22.9		ug/Kg	☼	76	50 - 150
2-Methylnaphthalene	ND		30.1	21.1		ug/Kg	☼	70	30 - 120
Acenaphthene	ND		30.1	21.4		ug/Kg	☼	71	35 - 120
Acenaphthylene	ND		30.1	21.9		ug/Kg	☼	73	41 - 120
Anthracene	ND		30.1	22.3		ug/Kg	☼	74	43 - 120
Benzo[a]anthracene	ND		30.1	22.9		ug/Kg	☼	76	36 - 120
Benzo[a]pyrene	ND		30.1	23.3		ug/Kg	☼	77	20 - 120
Benzo[b]fluoranthene	ND		30.1	23.6		ug/Kg	☼	78	37 - 120
Benzo[g,h,i]perylene	ND		30.1	22.1		ug/Kg	☼	73	20 - 123
Benzo[k]fluoranthene	ND		30.1	23.2		ug/Kg	☼	77	46 - 120
Chrysene	ND		30.1	24.0		ug/Kg	☼	80	34 - 120
Dibenz(a,h)anthracene	ND		30.1	23.8		ug/Kg	☼	79	20 - 120
Fluoranthene	ND		30.1	23.2		ug/Kg	☼	77	45 - 120
Fluorene	ND		30.1	21.3		ug/Kg	☼	71	44 - 120
Indeno[1,2,3-cd]pyrene	ND		30.1	22.8		ug/Kg	☼	76	20 - 127
Naphthalene	ND		30.1	21.5		ug/Kg	☼	71	44 - 120
Phenanthrene	ND		30.1	22.7		ug/Kg	☼	75	44 - 120
Pyrene	ND		30.1	23.1		ug/Kg	☼	77	43 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*67*		*45 - 130*
Nitrobenzene-d5	*66*		*40 - 130*
Terphenyl-d14	*74*		*45 - 130*

Lab Sample ID: 280-36535-3 MSD
Matrix: Solid
Analysis Batch: 151477

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS
Prep Type: Total/NA
Prep Batch: 150439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		29.4	23.9		ug/Kg	☼	81	50 - 150	4	50
2-Methylnaphthalene	ND		29.4	22.2		ug/Kg	☼	75	30 - 120	5	30
Acenaphthene	ND		29.4	22.2		ug/Kg	☼	76	35 - 120	4	50
Acenaphthylene	ND		29.4	22.7		ug/Kg	☼	77	41 - 120	3	50
Anthracene	ND		29.4	22.3		ug/Kg	☼	76	43 - 120	0	50
Benzo[a]anthracene	ND		29.4	22.6		ug/Kg	☼	77	36 - 120	1	40
Benzo[a]pyrene	ND		29.4	22.5		ug/Kg	☼	77	20 - 120	3	30
Benzo[b]fluoranthene	ND		29.4	23.1		ug/Kg	☼	79	37 - 120	2	28
Benzo[g,h,i]perylene	ND		29.4	21.8		ug/Kg	☼	74	20 - 123	1	30
Benzo[k]fluoranthene	ND		29.4	22.6		ug/Kg	☼	77	46 - 120	2	28

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36535-3 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151477 — **Prep Batch: 150439**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	ND		29.4	23.6		ug/Kg	☼	80	34 - 120	1	41
Dibenz(a,h)anthracene	ND		29.4	23.7		ug/Kg	☼	81	20 - 120	0	25
Fluoranthene	ND		29.4	22.4		ug/Kg	☼	76	45 - 120	3	30
Fluorene	ND		29.4	21.7		ug/Kg	☼	74	44 - 120	2	50
Indeno[1,2,3-cd]pyrene	ND		29.4	22.6		ug/Kg	☼	77	20 - 127	1	50
Naphthalene	ND		29.4	23.1		ug/Kg	☼	79	44 - 120	7	50
Phenanthrene	ND		29.4	22.9		ug/Kg	☼	78	44 - 120	1	42
Pyrene	ND		29.4	22.4		ug/Kg	☼	76	43 - 120	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*45 - 130*
Nitrobenzene-d5	*65*		*40 - 130*
Terphenyl-d14	*74*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-150457/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150593 — **Prep Batch: 150457**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.99	0.32	mg/Kg		12/04/12 20:12	12/05/12 23:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*77 - 123*	*12/04/12 20:12*	*12/05/12 23:42*	*1*

Lab Sample ID: LCS 280-150457/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150593 — **Prep Batch: 150457**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	5.50	5.55		mg/Kg		101	85 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*108*		*77 - 123*

Lab Sample ID: 280-36535-7 MS — **Client Sample ID: SL-571-SA6-SB-4.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150593 — **Prep Batch: 150457**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		5.80	5.18		mg/Kg	☼	89	85 - 153

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*107*		*77 - 123*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 280-36535-7 MSD — **Client Sample ID: SL-571-SA6-SB-4.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150593 — **Prep Batch: 150457**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		5.66	5.27		mg/Kg	☼	93	85 - 153	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*77 - 123*

Lab Sample ID: MB 280-150591/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*82 - 110*		*12/05/12 16:09*	*1*

Lab Sample ID: LCS 280-150591/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	104		ug/L		103	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Lab Sample ID: LCSD 280-150591/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	101		ug/L		100	79 - 149	3	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-150419/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151812 — **Prep Batch: 150419**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		9.7	0.97	mg/Kg		12/04/12 20:25	12/07/12 18:55	1
EFH (C12-C14)	ND		4.8	0.97	mg/Kg		12/04/12 20:25	12/07/12 18:55	1
EFH (C15-C20)	ND		4.8	0.97	mg/Kg		12/04/12 20:25	12/07/12 18:55	1
EFH (C21-C30)	ND		4.8	0.97	mg/Kg		12/04/12 20:25	12/07/12 18:55	1
EFH (C8-C11)	ND		4.8	0.96	mg/Kg		12/04/12 20:25	12/07/12 18:55	1

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: MB 280-150419/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151812 — **Prep Batch: 150419**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	1.28	J	3.9	0.66	mg/Kg		12/04/12 20:25	12/07/12 18:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*49 - 115*	*12/04/12 20:25*	*12/07/12 18:55*	*1*

Lab Sample ID: LCS 280-150419/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151812 — **Prep Batch: 150419**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	32.8	28.8		mg/Kg		88	43 - 115
EFH (C15-C20)	49.2	43.5		mg/Kg		88	56 - 115
EFH (C21-C30)	65.6	55.5		mg/Kg		85	55 - 115
EFH (C8-C11)	16.4	12.7		mg/Kg		77	21 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*74*		*49 - 115*

Lab Sample ID: 280-36535-3 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151812 — **Prep Batch: 150419**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	ND		34.0	28.8		mg/Kg	☼	85	43 - 115
EFH (C15-C20)	ND		51.0	48.5		mg/Kg	☼	95	56 - 115
EFH (C21-C30)	ND		68.0	62.5		mg/Kg	☼	92	55 - 115
EFH (C8-C11)	ND		17.0	11.6		mg/Kg	☼	68	21 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*86*		*49 - 115*

Lab Sample ID: 280-36535-3 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151812 — **Prep Batch: 150419**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	ND		32.5	29.5		mg/Kg	☼	91	43 - 115	2	30
EFH (C15-C20)	ND		48.8	43.2		mg/Kg	☼	89	56 - 115	12	30
EFH (C21-C30)	ND		65.1	53.1		mg/Kg	☼	82	55 - 115	16	30
EFH (C8-C11)	ND		16.3	12.6		mg/Kg	☼	77	21 - 125	8	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*75*		*49 - 115*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-150789/1-A
Matrix: Solid
Analysis Batch: 151399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.2	0.54	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
4,4'-DDE	ND		3.2	0.23	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
4,4'-DDT	ND		3.2	0.58	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Aldrin	ND		1.7	0.25	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
alpha-BHC	ND		1.7	0.21	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
beta-BHC	ND		1.7	0.65	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
delta-BHC	ND		1.7	0.39	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Dieldrin	ND		3.2	0.21	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endosulfan I	ND		1.7	0.17	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endosulfan II	ND		3.2	0.28	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endosulfan sulfate	ND		3.2	0.27	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endrin	ND		3.2	0.30	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endrin aldehyde	ND		3.2	0.17	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Endrin ketone	ND		3.2	0.48	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Heptachlor	ND		1.7	0.21	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Heptachlor epoxide	ND		1.7	0.42	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Methoxychlor	ND		6.6	0.44	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Technical Chlordane	ND		17	7.7	ug/Kg		12/06/12 16:10	12/11/12 00:19	1
Toxaphene	ND		49	16	ug/Kg		12/06/12 16:10	12/11/12 00:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*20 - 120*	*12/06/12 16:10*	*12/11/12 00:19*	*1*
DCB Decachlorobiphenyl	*85*		*20 - 120*	*12/06/12 16:10*	*12/11/12 00:19*	*1*
Tetrachloro-m-xylene	*83*		*50 - 130*	*12/06/12 16:10*	*12/11/12 00:19*	*1*
Tetrachloro-m-xylene	*83*		*50 - 130*	*12/06/12 16:10*	*12/11/12 00:19*	*1*

Lab Sample ID: LCS 280-150789/4-A
Matrix: Solid
Analysis Batch: 151399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.2	15.1		ug/Kg		93	54 - 130
4,4'-DDE	16.2	14.6		ug/Kg		90	58 - 121
4,4'-DDT	16.2	13.8		ug/Kg		85	57 - 133
Aldrin	16.2	14.1		ug/Kg		87	63 - 115
alpha-BHC	16.2	13.5		ug/Kg		83	64 - 116
beta-BHC	16.2	14.5		ug/Kg		89	67 - 115
delta-BHC	16.2	14.0		ug/Kg		86	67 - 115
Dieldrin	16.2	14.7		ug/Kg		90	65 - 127
Endosulfan I	16.2	14.1		ug/Kg		87	65 - 118
Endosulfan II	16.2	14.5		ug/Kg		90	71 - 118
Endosulfan sulfate	16.2	13.7		ug/Kg		84	67 - 123
Endrin	16.2	15.5		ug/Kg		96	77 - 134
Endrin aldehyde	16.2	11.6		ug/Kg		71	47 - 115
Endrin ketone	16.2	13.8		ug/Kg		85	62 - 115
gamma-BHC (Lindane)	16.2	13.8		ug/Kg		85	63 - 118
Heptachlor	16.2	13.4		ug/Kg		83	68 - 115

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-150789/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor epoxide	16.2	13.5		ug/Kg		83	66 - 117
Methoxychlor	16.2	13.7		ug/Kg		85	67 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*87*		*20 - 120*
DCB Decachlorobiphenyl	*90*		*20 - 120*
Tetrachloro-m-xylene	*91*		*50 - 130*
Tetrachloro-m-xylene	*88*		*50 - 130*

Lab Sample ID: LCS 280-150789/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	64.9	64.2		ug/Kg		99	19 - 174

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*95*		*20 - 120*
Tetrachloro-m-xylene	*91*		*50 - 130*

Lab Sample ID: 280-36535-16 MS — **Client Sample ID: SL-672-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		18.4	17.6		ug/Kg	☼	96	54 - 130
4,4'-DDE	ND		18.4	15.1		ug/Kg	☼	82	58 - 121
4,4'-DDT	ND		18.4	15.3		ug/Kg	☼	83	57 - 133
Aldrin	ND		18.4	15.0		ug/Kg	☼	82	63 - 115
alpha-BHC	ND		18.4	15.8		ug/Kg	☼	86	64 - 116
beta-BHC	ND		18.4	15.2		ug/Kg	☼	83	67 - 115
delta-BHC	ND		18.4	16.8		ug/Kg	☼	91	67 - 115
Dieldrin	ND		18.4	15.2		ug/Kg	☼	83	65 - 127
Endosulfan I	ND		18.4	15.0		ug/Kg	☼	82	65 - 118
Endosulfan II	ND		18.4	14.9		ug/Kg	☼	81	71 - 118
Endosulfan sulfate	ND		18.4	14.2		ug/Kg	☼	77	67 - 123
Endrin	ND		18.4	17.0		ug/Kg	☼	93	77 - 134
Endrin aldehyde	ND		18.4	12.6		ug/Kg	☼	69	47 - 115
Endrin ketone	ND		18.4	14.2		ug/Kg	☼	77	62 - 115
gamma-BHC (Lindane)	ND		18.4	15.4		ug/Kg	☼	84	63 - 118
Heptachlor	ND		18.4	14.5		ug/Kg	☼	73	68 - 115
Heptachlor epoxide	ND		18.4	15.1		ug/Kg	☼	82	66 - 117
Methoxychlor	ND		18.4	14.1		ug/Kg	☼	77	67 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*87*		*20 - 120*
DCB Decachlorobiphenyl	*86*		*20 - 120*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-36535-16 MS — **Client Sample ID: SL-672-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	132	X	50 - 130
Tetrachloro-m-xylene	90		50 - 130

Lab Sample ID: 280-36535-16 MS — **Client Sample ID: SL-672-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	ND		72.3	92.6		ug/Kg	☼	128	19 - 174

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	77		20 - 120
Tetrachloro-m-xylene	160	X	50 - 130

Lab Sample ID: 280-36535-16 MSD — **Client Sample ID: SL-672-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		18.4	16.2		ug/Kg	☼	88	54 - 130	9	20
4,4'-DDE	ND		18.4	15.1		ug/Kg	☼	82	58 - 121	0	15
4,4'-DDT	ND		18.4	15.5		ug/Kg	☼	85	57 - 133	2	29
Aldrin	ND		18.4	16.5		ug/Kg	☼	90	63 - 115	9	50
alpha-BHC	ND		18.4	16.1		ug/Kg	☼	88	64 - 116	2	17
beta-BHC	ND		18.4	19.9	F	ug/Kg	☼	108	67 - 115	27	17
delta-BHC	ND		18.4	16.8		ug/Kg	☼	91	67 - 115	0	19
Dieldrin	ND		18.4	15.3		ug/Kg	☼	83	65 - 127	1	25
Endosulfan I	ND		18.4	14.6		ug/Kg	☼	79	65 - 118	3	26
Endosulfan II	ND		18.4	15.2		ug/Kg	☼	83	71 - 118	2	20
Endosulfan sulfate	ND		18.4	14.1		ug/Kg	☼	77	67 - 123	1	22
Endrin	ND		18.4	16.6		ug/Kg	☼	90	77 - 134	3	30
Endrin aldehyde	ND		18.4	12.0		ug/Kg	☼	65	47 - 115	5	29
Endrin ketone	ND		18.4	13.9		ug/Kg	☼	76	62 - 115	2	20
gamma-BHC (Lindane)	ND		18.4	15.9		ug/Kg	☼	86	63 - 118	3	24
Heptachlor	ND		18.4	16.2		ug/Kg	☼	83	68 - 115	11	18
Heptachlor epoxide	ND		18.4	15.6		ug/Kg	☼	85	66 - 117	3	18
Methoxychlor	ND		18.4	14.0		ug/Kg	☼	76	67 - 130	1	23

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	85		20 - 120
DCB Decachlorobiphenyl	84		20 - 120
Tetrachloro-m-xylene	119		50 - 130
Tetrachloro-m-xylene	106		50 - 130

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-36535-16 MSD — **Client Sample ID: SL-672-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151399 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene	ND		75.7	47.5	J F	ug/Kg	☼	63	19 - 174	64	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*20 - 120*
Tetrachloro-m-xylene	*101*		*50 - 130*

Method: 8081B - Organochlorine Pesticides (GC) - RA

Lab Sample ID: MB 280-150789/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151827 — **Prep Batch: 150789**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mirex - RA	ND		1.7	0.26	ug/Kg		12/06/12 16:10	12/12/12 23:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl - RA	*87*		*20 - 120*	*12/06/12 16:10*	*12/12/12 23:15*	*1*
DCB Decachlorobiphenyl - RA	*88*		*20 - 120*	*12/06/12 16:10*	*12/12/12 23:15*	*1*
Tetrachloro-m-xylene - RA	*86*		*50 - 130*	*12/06/12 16:10*	*12/12/12 23:15*	*1*
Tetrachloro-m-xylene - RA	*79*		*50 - 130*	*12/06/12 16:10*	*12/12/12 23:15*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-150789/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1221	ND		32	15	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1232	ND		17	5.0	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1242	ND		17	9.0	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1248	ND		17	5.5	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1254	ND		17	5.4	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1260	ND		17	2.6	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1262	ND		32	11	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 1268	ND		32	3.9	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 5432	ND		49	16	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 5442	ND		49	32	ug/Kg		12/06/12 16:10	12/10/12 11:10	1
Aroclor 5460	ND		49	16	ug/Kg		12/06/12 16:10	12/10/12 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*45 - 120*	*12/06/12 16:10*	*12/10/12 11:10*	*1*
Tetrachloro-m-xylene	*98*		*45 - 120*	*12/06/12 16:10*	*12/10/12 11:10*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 280-150789/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	64.1	70.4		ug/Kg		110	54 - 132
Aroclor 1260	64.1	61.6		ug/Kg		96	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*80*		*45 - 120*
Tetrachloro-m-xylene	*102*		*45 - 120*

Lab Sample ID: LCS 280-150789/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	65.1	57.3		ug/Kg		88	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*80*		*45 - 120*
Tetrachloro-m-xylene	*99*		*45 - 120*

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		66.7	65.1		ug/Kg	☼	98	54 - 132
Aroclor 1260	ND		66.7	56.5		ug/Kg	☼	85	62 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*73*		*45 - 120*
Tetrachloro-m-xylene	*92*		*45 - 120*

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	ND		67.2	41.0	J F	ug/Kg	☼	61	62 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*59*		*45 - 120*
Tetrachloro-m-xylene	*73*		*45 - 120*

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		67.0	51.6		ug/Kg	☼	77	54 - 132	23	36

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1260	ND		67.0	45.7		ug/Kg	☼	68	62 - 129	21	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*57*		*45 - 120*
Tetrachloro-m-xylene	*74*		*45 - 120*

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151320 — **Prep Batch: 150789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		67.2	47.6	J	ug/Kg	☼	71	62 - 129	15	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*45 - 120*
Tetrachloro-m-xylene	*84*		*45 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-150882/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	2.3	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
2,4-D	ND		39	14	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
2,4-DB	ND		78	7.3	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dalapon	ND		98	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dicamba	ND		39	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dichlorprop	ND		39	3.1	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dinoseb	ND		39	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
MCPA	ND		6400	2000	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
MCPP	ND		6400	2000	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*69*		*50 - 150*	*12/06/12 20:50*	*12/10/12 18:09*	*1*
2,4-Dichlorophenylacetic acid	*70*		*50 - 150*	*12/06/12 20:50*	*12/10/12 18:09*	*1*

Lab Sample ID: LCS 280-150882/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	94.3	95.2		ug/Kg		101	24 - 115
2,4-D	90.4	92.3		ug/Kg		102	32 - 115
2,4-DB	98.2	95.1		ug/Kg		97	37 - 119

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 280-150882/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	102	88.2	J	ug/Kg		86	11 - 115
Dicamba	90.4	78.8		ug/Kg		87	11 - 115
Dichlorprop	90.4	83.9		ug/Kg		93	35 - 115
Dinoseb	90.4	7.52	J	ug/Kg		8	5 - 166
MCPA	9160	7910		ug/Kg		86	37 - 115
MCPP	9170	8720		ug/Kg		95	48 - 132
Silvex (2,4,5-TP)	90.4	88.8		ug/Kg		98	53 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*50 - 150*
2,4-Dichlorophenylacetic acid	*86*		*50 - 150*

Lab Sample ID: LCSD 280-150882/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	94.1	82.9		ug/Kg		88	24 - 115	14	40
2,4-D	90.2	81.8		ug/Kg		91	32 - 115	12	40
2,4-DB	98.0	93.0		ug/Kg		95	37 - 119	2	50
Dalapon	102	78.1	J	ug/Kg		77	11 - 115	12	50
Dicamba	90.2	73.2		ug/Kg		81	11 - 115	7	50
Dichlorprop	90.2	77.7		ug/Kg		86	35 - 115	8	50
Dinoseb	90.2	5.02	J	ug/Kg		6	5 - 166	40	50
MCPA	9140	7260		ug/Kg		79	37 - 115	9	50
MCPP	9150	8120		ug/Kg		89	48 - 132	7	50
Silvex (2,4,5-TP)	90.2	79.2		ug/Kg		88	53 - 134	12	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*75*		*50 - 150*
2,4-Dichlorophenylacetic acid	*75*		*50 - 150*

Lab Sample ID: 280-36651-A-1-I MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	18	J p	94.1	45.4		ug/Kg		44	24 - 115
2,4-D	46		90.2	85.1		ug/Kg		44	32 - 115
2,4-DB	ND		98.0	48.7	J	ug/Kg		50	37 - 119
Dalapon	ND		102	70.3	J	ug/Kg		69	11 - 115
Dicamba	ND		90.2	46.6		ug/Kg		52	11 - 115
Dichlorprop	210		90.2	352	F	ug/Kg		390	35 - 115
Dinoseb	45	J	90.2	ND	F	ug/Kg		0	5 - 166
MCPA	ND		9140	2760	J F	ug/Kg		30	37 - 115
MCPP	69000		9150	68700	E F	ug/Kg		751	48 - 132
Silvex (2,4,5-TP)	ND		90.2	41.2	F	ug/Kg		46	53 - 134

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 280-36651-A-1-I MS
Matrix: Solid
Analysis Batch: 151352

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 150882

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4-Dichlorophenylacetic acid	62		50 - 150
2,4-Dichlorophenylacetic acid	59		50 - 150

Lab Sample ID: 280-36651-A-1-J MSD
Matrix: Solid
Analysis Batch: 151352

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 150882

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	18	J p	95.4	47.9		ug/Kg		46	24 - 115	6	40
2,4-D	46		91.5	93.0		ug/Kg		52	32 - 115	9	40
2,4-DB	ND		99.4	44.1	J	ug/Kg		44	37 - 119	10	50
Dalapon	ND		103	71.5	J	ug/Kg		69	11 - 115	2	50
Dicamba	ND		91.5	49.6		ug/Kg		54	11 - 115	6	50
Dichlorprop	210		91.5	41.1	F	ug/Kg		45	35 - 115	158	50
Dinoseb	4.7	J	91.5	ND	F	ug/Kg		0	5 - 166	NC	50
MCPA	ND		9260	3550	J	ug/Kg		38	37 - 115	25	50
MCPP	69000		9280	6100	J F	ug/Kg		66	48 - 132	167	50
Silvex (2,4,5-TP)	ND		91.5	43.8	F	ug/Kg		48	53 - 134	6	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	55		50 - 150
2,4-Dichlorophenylacetic acid	62		50 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-150486/1-A
Matrix: Solid
Analysis Batch: 150867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Boron	ND		9.7	0.98	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Calcium	ND		50	14	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Iron	8.41	J	34	3.8	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Lithium	ND		37	0.30	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Magnesium	ND		10	3.7	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Manganese	ND		500	0.10	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Phosphorus	ND		10	1.6	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Potassium	ND		6400	41	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Sodium	ND		500	59	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Strontium	ND		0.50	0.036	mg/Kg		12/05/12 13:00	12/06/12 11:01	1
Tin	0.943	J	11	0.91	mg/Kg		12/05/12 13:00	12/06/12 11:01	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 280-150486/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	ND		1.0	0.14	mg/Kg		12/05/12 13:00	12/07/12 18:24	1
Zirconium	ND		8.6	0.35	mg/Kg		12/05/12 13:00	12/07/12 18:24	1

Lab Sample ID: LCS 280-150486/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	194	J	mg/Kg		97	80 - 120
Boron	100	97.7		mg/Kg		98	80 - 120
Calcium	5000	4680		mg/Kg		94	80 - 120
Iron	100	96.7		mg/Kg		97	80 - 120
Lithium	100	106		mg/Kg		106	80 - 120
Magnesium	5000	4810		mg/Kg		96	80 - 120
Manganese	50.0	48.3	J	mg/Kg		97	80 - 120
Phosphorus	1000	1000		mg/Kg		100	80 - 120
Potassium	5000	5250	J	mg/Kg		105	80 - 120
Sodium	5000	5360		mg/Kg		107	80 - 120
Strontium	100	97.7		mg/Kg		98	80 - 120
Tin	200	193		mg/Kg		96	80 - 120

Lab Sample ID: LCS 280-150486/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	100	100		mg/Kg		100	80 - 120
Zirconium	50.0	46.6		mg/Kg		93	80 - 120

Lab Sample ID: 280-36452-B-5-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	14000	J	206	18400	J 4	mg/Kg	☼	2104	75 - 125
Boron	1.7	J	103	96.4		mg/Kg	☼	92	75 - 125
Calcium	1900		5140	6710		mg/Kg	☼	94	75 - 125
Iron	17000	B	103	17700	4	mg/Kg	☼	903	75 - 125
Lithium	22	J	103	130		mg/Kg	☼	105	75 - 125
Magnesium	4200		5140	9360		mg/Kg	☼	101	75 - 125
Manganese	310	J	51.4	379	J 4	mg/Kg	☼	134	75 - 125
Phosphorus	290		1030	1250		mg/Kg	☼	93	75 - 125
Potassium	3200	J	5140	8720		mg/Kg	☼	107	75 - 125
Sodium	130	J	5140	5490		mg/Kg	☼	104	75 - 125
Strontium	17		103	115		mg/Kg	☼	95	75 - 125
Tin	1.1	J B	206	180		mg/Kg	☼	87	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36452-B-5-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	960		103	1200	4	mg/Kg	☼	236	75 - 125
Zirconium	1.6	J	51.4	44.9		mg/Kg	☼	84	75 - 125

Lab Sample ID: 280-36452-C-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	14000	J	181	17500	J 4	mg/Kg	☼	1892	75 - 125	5	20
Boron	1.7	J	90.3	84.8		mg/Kg	☼	92	75 - 125	13	20
Calcium	1900		4510	6020		mg/Kg	☼	91	75 - 125	11	20
Iron	17000	B	90.3	16900	4	mg/Kg	☼	101	75 - 125	5	20
Lithium	22	J	90.3	115		mg/Kg	☼	103	75 - 125	12	20
Magnesium	4200		4510	8560		mg/Kg	☼	97	75 - 125	9	20
Manganese	310	J	45.1	363	J 4	mg/Kg	☼	117	75 - 125	4	20
Phosphorus	290		903	1120		mg/Kg	☼	93	75 - 125	10	20
Potassium	3200	J	4510	7820		mg/Kg	☼	102	75 - 125	11	20
Sodium	130	J	4510	4770		mg/Kg	☼	103	75 - 125	14	20
Strontium	17		90.3	102		mg/Kg	☼	94	75 - 125	12	20
Tin	1.1	J B	181	156		mg/Kg	☼	86	75 - 125	14	20

Lab Sample ID: 280-36452-C-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Titanium	960		90.3	1140	4	mg/Kg	☼	194	75 - 125	6	20
Zirconium	1.6	J	45.1	38.9		mg/Kg	☼	83	75 - 125	14	20

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	14000	J	205	17300	J 4	mg/Kg	☼	1420	75 - 125
Boron	0.88	J	103	93.1		mg/Kg	☼	90	75 - 125
Calcium	1900		5140	6570		mg/Kg	☼	90	75 - 125
Iron	18000	B	103	17700	4	mg/Kg	☼	-517	75 - 125
Lithium	25	J	103	128		mg/Kg	☼	100	75 - 125
Magnesium	4500		5140	9200		mg/Kg	☼	91	75 - 125
Manganese	270	J	51.4	305	J 4	mg/Kg	☼	63	75 - 125
Phosphorus	380		1030	1300		mg/Kg	☼	89	75 - 125
Potassium	2600	J	5140	7800		mg/Kg	☼	100	75 - 125
Sodium	140	J	5140	5300		mg/Kg	☼	100	75 - 125
Strontium	14		103	110		mg/Kg	☼	93	75 - 125
Tin	1.3	J B	205	175		mg/Kg	☼	85	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	990		103	1170	4	mg/Kg	☼	183	75 - 125
Zirconium	1.4	J	51.4	45.9		mg/Kg	☼	87	75 - 125

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150867 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	14000	J	203	17300	J 4	mg/Kg	☼	1425	75 - 125	0	20
Boron	0.88	J	102	92.4		mg/Kg	☼	90	75 - 125	1	20
Calcium	1900		5090	6370		mg/Kg	☼	87	75 - 125	3	20
Iron	18000	B	102	18500	4	mg/Kg	☼	228	75 - 125	4	20
Lithium	25	J	102	127		mg/Kg	☼	101	75 - 125	0	20
Magnesium	4500		5090	9280		mg/Kg	☼	93	75 - 125	1	20
Manganese	270	J	50.9	312	J 4	mg/Kg	☼	76	75 - 125	2	20
Phosphorus	380		1020	1310		mg/Kg	☼	91	75 - 125	1	20
Potassium	2600	J	5090	7780		mg/Kg	☼	101	75 - 125	0	20
Sodium	140	J	5090	5310		mg/Kg	☼	102	75 - 125	0	20
Strontium	14		102	107		mg/Kg	☼	91	75 - 125	2	20
Tin	1.3	J B	203	174		mg/Kg	☼	85	75 - 125	1	20

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151312 — **Prep Batch: 150486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Titanium	990		102	1160	4	mg/Kg	☼	169	75 - 125	1	20
Zirconium	1.4	J	50.9	45.3		mg/Kg	☼	86	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-150488/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Arsenic	ND		15	0.051	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Barium	ND		140	0.071	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Beryllium	ND		1.1	0.023	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Chromium	ND		37	0.076	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Cobalt	ND		21	0.0066	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Copper	ND		29	0.071	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Lead	ND		34	0.018	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Nickel	0.0701	J	29	0.025	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Selenium	ND		0.66	0.13	mg/Kg		12/05/12 13:00	12/05/12 21:55	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-150488/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.79	0.020	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Thallium	ND		0.46	0.0035	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Vanadium	ND		62	0.039	mg/Kg		12/05/12 13:00	12/05/12 21:55	1
Zinc	ND		110	0.32	mg/Kg		12/05/12 13:00	12/05/12 21:55	1

Lab Sample ID: LCS 280-150488/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.6		mg/Kg		98	80 - 120
Arsenic	20.0	19.8		mg/Kg		99	80 - 120
Barium	20.0	19.9	J	mg/Kg		100	80 - 120
Beryllium	20.0	19.5		mg/Kg		98	80 - 120
Cadmium	20.0	19.9		mg/Kg		99	80 - 120
Chromium	20.0	19.9	J	mg/Kg		100	80 - 120
Cobalt	20.0	20.3	J	mg/Kg		101	80 - 120
Copper	20.0	21.3	J	mg/Kg		106	80 - 120
Lead	20.0	20.9	J	mg/Kg		104	80 - 120
Molybdenum	20.0	19.4		mg/Kg		97	80 - 120
Nickel	20.0	21.0	J	mg/Kg		105	80 - 120
Selenium	20.0	19.8		mg/Kg		99	80 - 120
Silver	20.0	20.1		mg/Kg		101	80 - 120
Thallium	20.0	20.9		mg/Kg		105	80 - 120
Vanadium	20.0	19.3	J	mg/Kg		96	80 - 120
Zinc	20.0	20.0	J	mg/Kg		100	80 - 120

Lab Sample ID: 280-36452-B-5-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.020	J	20.0	1.35	J F	mg/Kg	☼	7	75 - 125
Arsenic	2.9	J	20.0	21.8		mg/Kg	☼	95	75 - 125
Barium	99	J	20.0	121	J 4	mg/Kg	☼	112	75 - 125
Beryllium	0.54	J	20.0	20.3		mg/Kg	☼	99	75 - 125
Cadmium	0.25	J	20.0	19.8		mg/Kg	☼	98	75 - 125
Chromium	17	J	20.0	36.3	J	mg/Kg	☼	97	75 - 125
Cobalt	5.6	J	20.0	24.8		mg/Kg	☼	96	75 - 125
Copper	8.9	J	20.0	28.5	J	mg/Kg	☼	98	75 - 125
Lead	4.5	J	20.0	24.1	J	mg/Kg	☼	98	75 - 125
Molybdenum	0.43	J	20.0	16.9		mg/Kg	☼	82	75 - 125
Nickel	12	J B	20.0	31.4		mg/Kg	☼	98	75 - 125
Selenium	0.66	J	20.0	18.9		mg/Kg	☼	91	75 - 125
Silver	0.036	J	20.0	18.3		mg/Kg	☼	92	75 - 125
Thallium	0.27	J	20.0	20.1		mg/Kg	☼	99	75 - 125
Vanadium	31	J	20.0	52.1	J	mg/Kg	☼	106	75 - 125
Zinc	51	J	20.0	70.1	J	mg/Kg	☼	98	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36452-C-5-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.020	J	20.6	1.41	J F	mg/Kg	☼	7	75 - 125	4	20
Arsenic	2.9	J	20.6	22.9		mg/Kg	☼	97	75 - 125	5	20
Barium	99	J	20.6	123	J 4	mg/Kg	☼	118	75 - 125	2	20
Beryllium	0.54	J	20.6	21.5		mg/Kg	☼	102	75 - 125	6	20
Cadmium	0.25	J	20.6	20.8		mg/Kg	☼	100	75 - 125	5	20
Chromium	17	J	20.6	38.0		mg/Kg	☼	102	75 - 125	5	20
Cobalt	5.6	J	20.6	26.0		mg/Kg	☼	99	75 - 125	5	20
Copper	8.9	J	20.6	29.8	J	mg/Kg	☼	101	75 - 125	5	20
Lead	4.5	J	20.6	25.5	J	mg/Kg	☼	102	75 - 125	6	20
Molybdenum	0.43	J	20.6	18.1		mg/Kg	☼	86	75 - 125	7	20
Nickel	12	J B	20.6	33.0		mg/Kg	☼	104	75 - 125	5	20
Selenium	0.66	J	20.6	20.4		mg/Kg	☼	96	75 - 125	7	20
Silver	0.036	J	20.6	19.4		mg/Kg	☼	94	75 - 125	6	20
Thallium	0.27	J	20.6	21.3		mg/Kg	☼	102	75 - 125	6	20
Vanadium	31	J	20.6	53.5	J	mg/Kg	☼	110	75 - 125	3	20
Zinc	51	J	20.6	72.9	J	mg/Kg	☼	109	75 - 125	4	20

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.019	J	20.3	2.15	J F	mg/Kg	☼	10	75 - 125
Arsenic	4.4	J	20.3	24.5		mg/Kg	☼	99	75 - 125
Barium	76	J	20.3	101	J F	mg/Kg	☼	127	75 - 125
Beryllium	0.61	J	20.3	21.3		mg/Kg	☼	102	75 - 125
Cadmium	0.13	J	20.3	20.6		mg/Kg	☼	101	75 - 125
Chromium	19	J	20.3	42.0		mg/Kg	☼	115	75 - 125
Cobalt	5.6	J	20.3	26.0		mg/Kg	☼	101	75 - 125
Copper	6.7	J	20.3	27.4	J	mg/Kg	☼	102	75 - 125
Lead	4.7	J	20.3	25.8	J	mg/Kg	☼	104	75 - 125
Molybdenum	0.69	J	20.3	19.8		mg/Kg	☼	94	75 - 125
Nickel	12	J B	20.3	33.0		mg/Kg	☼	103	75 - 125
Selenium	0.79		20.3	20.7		mg/Kg	☼	98	75 - 125
Silver	0.029	J	20.3	19.6		mg/Kg	☼	96	75 - 125
Thallium	0.27	J	20.3	21.4		mg/Kg	☼	104	75 - 125
Vanadium	35	J	20.3	57.7	J	mg/Kg	☼	111	75 - 125
Zinc	47	J	20.3	67.6	J	mg/Kg	☼	102	75 - 125

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.019	J	19.8	2.10	J F	mg/Kg	☼	11	75 - 125	2	20
Arsenic	4.4	J	19.8	23.6		mg/Kg	☼	97	75 - 125	4	20
Barium	76	J	19.8	94.4	J	mg/Kg	☼	95	75 - 125	7	20
Beryllium	0.61	J	19.8	21.1		mg/Kg	☼	104	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 150768 — **Prep Batch: 150488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.13	J	19.8	19.9		mg/Kg	☼	100	75 - 125	3	20
Chromium	19	J	19.8	39.0		mg/Kg	☼	104	75 - 125	7	20
Cobalt	5.6	J	19.8	25.0		mg/Kg	☼	98	75 - 125	4	20
Copper	6.7	J	19.8	26.3	J	mg/Kg	☼	99	75 - 125	4	20
Lead	4.7	J	19.8	24.6	J	mg/Kg	☼	100	75 - 125	5	20
Molybdenum	0.69	J	19.8	19.2		mg/Kg	☼	93	75 - 125	4	20
Nickel	12	J B	19.8	32.1		mg/Kg	☼	101	75 - 125	3	20
Selenium	0.79		19.8	19.9		mg/Kg	☼	96	75 - 125	4	20
Silver	0.029	J	19.8	19.1		mg/Kg	☼	97	75 - 125	3	20
Thallium	0.27	J	19.8	20.6		mg/Kg	☼	103	75 - 125	4	20
Vanadium	35	J	19.8	55.5	J	mg/Kg	☼	103	75 - 125	4	20
Zinc	47	J	19.8	65.4	J	mg/Kg	☼	94	75 - 125	3	20

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 280-150508/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/07/12 12:10	12/07/12 16:09	1

Lab Sample ID: LCS 280-150508/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.417	0.419		mg/Kg		101	85 - 120

Lab Sample ID: 280-36535-4 MS — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0084	J	0.463	0.467		mg/Kg	☼	99	65 - 135

Lab Sample ID: 280-36535-4 MSD — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0084	J	0.455	0.454		mg/Kg	☼	98	65 - 135	3	20

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Method: 9045D - pH

Lab Sample ID: LCS 280-151468/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151468

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.970		SU		100	95 - 105		

Lab Sample ID: LCSD 280-151468/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151468

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	6.970		SU		100	95 - 105	0	5

Lab Sample ID: 280-36535-2 DU — **Client Sample ID: SL-571-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151468

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	6.83			6.830		SU				0	5
Temperature	19.9			20.00		Degrees C				0.5	5

Lab Sample ID: 280-36535-4 DU — **Client Sample ID: SL-571-SA6-SB-4.0-5.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151468

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.20			7.230		SU				0.4	5
Temperature	20.4			20.40		Degrees C				0	5

Lab Sample ID: 280-36535-24 DU — **Client Sample ID: SL-559-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151468

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.28			7.260		SU				0.3	5
Temperature	20.4			20.40		Degrees C				0	5

Method: Moisture - Percent Moisture

Lab Sample ID: 280-36535-29 DU — **Client Sample ID: SL-574-SA6-SB-2.5-3.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151053

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	4.8			4.9		%				3	20

GC/MS Semi VOA

Prep Batch: 150439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	
280-36535-3 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	
280-36535-3 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	3546	
LCS 280-150439/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-150439/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 151477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	150439
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8270C SIM	150439
280-36535-3 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8270C SIM	150439
280-36535-3 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8270C SIM	150439
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	150439
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	150439
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	150439
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	150439
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	150439
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	150439
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	150439
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	150439
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	150439
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	8270C SIM	150439
LCS 280-150439/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	150439
MB 280-150439/1-A	Method Blank	Total/NA	Solid	8270C SIM	150439

Analysis Batch: 152098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	None	
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	None	

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

GC VOA

Prep Batch: 150457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-7	SL-571-SA6-SB-4.5MS	Total/NA	Solid	5035	
280-36535-7 MS	SL-571-SA6-SB-4.5MS	Total/NA	Solid	5035	
280-36535-7 MSD	SL-571-SA6-SB-4.5MS	Total/NA	Solid	5035	
280-36535-8	SL-971-SA6-SB-4.5	Total/NA	Solid	5035	
280-36535-13	SL-572-SA6-SB-3.0	Total/NA	Solid	5035	
280-36535-17	SL-672-SA6-SB-4.5	Total/NA	Solid	5035	
280-36535-20	SL-674-SA6-SB-3.0	Total/NA	Solid	5035	
280-36535-25	SL-559-SA6-SB-4.5	Total/NA	Solid	5035	
280-36535-30	SL-574-SA6-SB-3.0	Total/NA	Solid	5035	
280-36535-33	SL-664-SA6-SB-2.5	Total/NA	Solid	5035	
LCS 280-150457/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 280-150457/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 150591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-14	TB-120312	Total/NA	Water	8015B	
LCS 280-150591/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-150591/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-150591/7	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 150593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-7	SL-571-SA6-SB-4.5MS	Total/NA	Solid	8015B	150457
280-36535-7 MS	SL-571-SA6-SB-4.5MS	Total/NA	Solid	8015B	150457
280-36535-7 MSD	SL-571-SA6-SB-4.5MS	Total/NA	Solid	8015B	150457
280-36535-8	SL-971-SA6-SB-4.5	Total/NA	Solid	8015B	150457
LCS 280-150457/2-A	Lab Control Sample	Total/NA	Solid	8015B	150457
MB 280-150457/1-A	Method Blank	Total/NA	Solid	8015B	150457

Analysis Batch: 150835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-13	SL-572-SA6-SB-3.0	Total/NA	Solid	8015B	150457
280-36535-17	SL-672-SA6-SB-4.5	Total/NA	Solid	8015B	150457
280-36535-20	SL-674-SA6-SB-3.0	Total/NA	Solid	8015B	150457
280-36535-25	SL-559-SA6-SB-4.5	Total/NA	Solid	8015B	150457
280-36535-30	SL-574-SA6-SB-3.0	Total/NA	Solid	8015B	150457
280-36535-33	SL-664-SA6-SB-2.5	Total/NA	Solid	8015B	150457

GC Semi VOA

Leach Batch: 150408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	

GC Semi VOA (Continued)

Leach Batch: 150408 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-16 - RA	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-16 MS	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-16 MSD	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-19 - RA	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	

Prep Batch: 150419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3550C	
280-36535-3 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3550C	
280-36535-3 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3550C	
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	3550C	
LCS 280-150419/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 280-150419/1-A	Method Blank	Total/NA	Solid	3550C	

Prep Batch: 150789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	150408
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	150408
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	150408
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	150408
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3546	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-16 - RA	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-16 MS	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-16 MS	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-16 MSD	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-16 MSD	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150408
280-36535-19 - RA	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150408

GC Semi VOA (Continued)

Prep Batch: 150789 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150408
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150408
LCS 280-150789/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-150789/3-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-150789/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-150789/5-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-150789/1-A	Method Blank	Total/NA	Solid	3546	
MB 280-150789/1-A - RA	Method Blank	Total/NA	Solid	3546	

Prep Batch: 150882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8151A	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8151A	150408
280-36651-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	
280-36651-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	
LCS 280-150882/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 280-150882/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
MB 280-150882/1-A	Method Blank	Total/NA	Solid	8151A	

Analysis Batch: 151320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	150789
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8082A	150789
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8082A	150789
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8082A	150789
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8082A	150789
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8082A	150789
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	150789
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	150789
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	150789
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	150789
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	150789
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	150789
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	150789
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	150789
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	150789
LCS 280-150789/2-A	Lab Control Sample	Total/NA	Solid	8082A	150789
LCS 280-150789/3-A	Lab Control Sample	Total/NA	Solid	8082A	150789
MB 280-150789/1-A	Method Blank	Total/NA	Solid	8082A	150789

Analysis Batch: 151352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8151A	150882
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8151A	150882
280-36651-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	150882
280-36651-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	150882
LCS 280-150882/2-A	Lab Control Sample	Total/NA	Solid	8151A	150882
LCSD 280-150882/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	150882
MB 280-150882/1-A	Method Blank	Total/NA	Solid	8151A	150882

GC Semi VOA (Continued)

Analysis Batch: 151399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-16 MS	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-16 MS	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-16 MSD	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-16 MSD	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8081B	150789
LCS 280-150789/4-A	Lab Control Sample	Total/NA	Solid	8081B	150789
LCS 280-150789/5-A	Lab Control Sample	Total/NA	Solid	8081B	150789
MB 280-150789/1-A	Method Blank	Total/NA	Solid	8081B	150789

Analysis Batch: 151804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	150789

Analysis Batch: 151812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	150419
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8015B	150419
280-36535-3 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8015B	150419
280-36535-3 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	8015B	150419
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	150419
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	150419
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	150419
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	150419
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	150419
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	150419
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	150419
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	8015B	150419
LCS 280-150419/2-A	Lab Control Sample	Total/NA	Solid	8015B	150419
MB 280-150419/1-A	Method Blank	Total/NA	Solid	8015B	150419

Analysis Batch: 151815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	150419
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	150419

Analysis Batch: 151827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-16 - RA	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	150789
280-36535-19 - RA	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	8081B	150789
MB 280-150789/1-A - RA	Method Blank	Total/NA	Solid	8081B	150789

Metals

Leach Batch: 150242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-C MS	Matrix Spike	Total/NA	Solid	Increment, Prep	
280-36452-B-5-D MS	Matrix Spike	Total/NA	Solid	Increment, Prep	
280-36452-C-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, Prep	
280-36452-C-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, Prep	

Metals (Continued)

Leach Batch: 150408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	

Prep Batch: 150486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-C MS	Matrix Spike	Total/NA	Solid	3050B	150242
280-36452-C-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	150242
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150408
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-150486/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 150488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-D MS	Matrix Spike	Total/NA	Solid	3050B	150242
280-36452-C-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	150242
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	3050B	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150408

Metals (Continued)

Prep Batch: 150488 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150408
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150408
LCS 280-150488/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-150488/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 150508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150408
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150408
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150408
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150408
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	7471B	150408
LCS 280-150508/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-150508/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 150768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-D MS	Matrix Spike	Total/NA	Solid	6020A	150488
280-36452-C-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	6020A	150488
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	150488
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6020A	150488
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6020A	150488
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6020A	150488
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	150488
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	150488
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	150488
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	150488
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	150488
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	150488
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	150488
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	150488
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	150488
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	150488
LCS 280-150488/2-A	Lab Control Sample	Total/NA	Solid	6020A	150488
MB 280-150488/1-A	Method Blank	Total/NA	Solid	6020A	150488

Analysis Batch: 150867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-C MS	Matrix Spike	Total/NA	Solid	6010C	150486
280-36452-C-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010C	150486
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486

Metals (Continued)

Analysis Batch: 150867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	6010C	150486
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	6010C	150486
MB 280-150486/1-A	Method Blank	Total/NA	Solid	6010C	150486

Analysis Batch: 151312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36452-B-5-C MS	Matrix Spike	Total/NA	Solid	6010C	150486
280-36452-C-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010C	150486
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	6010C	150486
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	150486
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	150486
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	150486
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	6010C	150486
LCS 280-150486/2-A	Lab Control Sample	Total/NA	Solid	6010C	150486
MB 280-150486/1-A	Method Blank	Total/NA	Solid	6010C	150486

Analysis Batch: 151330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150508
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150508
280-36535-4 MS	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150508
280-36535-4 MSD	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	7471B	150508
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150508
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150508
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150508
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150508
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150508
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150508
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150508
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150508

Metals (Continued)

Analysis Batch: 151330 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150508
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	7471B	150508
LCS 280-150508/2-A	Lab Control Sample	Total/NA	Solid	7471B	150508
MB 280-150508/1-A	Method Blank	Total/NA	Solid	7471B	150508

General Chemistry

Leach Batch: 150408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36535-2 DU	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Increment, Prep	
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	DI Leach	
280-36535-4 DU	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	DI Leach	
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36535-24 DU	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	
280-36535-29 DU	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	DI Leach	

Analysis Batch: 151053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Moisture	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	150408
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150408

General Chemistry (Continued)

Analysis Batch: 151053 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150408
280-36535-29 DU	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	Moisture	150408

Analysis Batch: 151367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-1	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36535-3	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	Moisture	
280-36535-5	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36535-7	SL-571-SA6-SB-4.5MS	Total/NA	Solid	Moisture	
280-36535-8	SL-971-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36535-9	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36535-11	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36535-13	SL-572-SA6-SB-3.0	Total/NA	Solid	Moisture	
280-36535-15	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36535-17	SL-672-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36535-18	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36535-20	SL-674-SA6-SB-3.0	Total/NA	Solid	Moisture	
280-36535-21	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36535-23	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36535-25	SL-559-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36535-26	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36535-28	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36535-30	SL-574-SA6-SB-3.0	Total/NA	Solid	Moisture	
280-36535-31	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	Moisture	
280-36535-33	SL-664-SA6-SB-2.5	Total/NA	Solid	Moisture	

Analysis Batch: 151468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36535-2	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150408
280-36535-2 DU	SL-571-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150408
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	9045D	150408
280-36535-4 DU	SL-571-SA6-SB-4.0-5.0MS	Total/NA	Solid	9045D	150408
280-36535-6	SL-971-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150408
280-36535-10	SL-572-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150408
280-36535-12	SL-572-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150408
280-36535-16	SL-672-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150408
280-36535-19	SL-674-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150408
280-36535-22	SL-559-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150408
280-36535-24	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150408
280-36535-24 DU	SL-559-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150408
280-36535-27	SL-574-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150408
280-36535-29	SL-574-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150408
280-36535-32	SL-664-SA6-SB-2.0-3.0	Total/NA	Solid	9045D	150408
LCS 280-151468/4	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-151468/5	Lab Control Sample Dup	Total/NA	Solid	9045D	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-1

Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.9 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 00:02	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 19:44	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-2

Date Collected: 12/03/12 09:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			32.7 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 12:14	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:29	TEL	TAL DEN
Total/NA	Prep	3050B			1.19 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:32	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 18:56	HEB	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:25	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 17:52	DA	TAL DEN

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — Lab Sample ID: 280-36535-3

Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.8 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 00:27	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 20:08	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — Lab Sample ID: 280-36535-4

Date Collected: 12/03/12 09:10 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.8 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 12:35	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:32	TEL	TAL DEN
Total/NA	Prep	3050B			1.18 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:34	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 18:59	HEB	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:27	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 17:54	DA	TAL DEN

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-5

Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.8 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 01:42	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.7 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 21:22	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-6

Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.6 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 14:22	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:41	TEL	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:41	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:05	HEB	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-6

Date Collected: 12/03/12 09:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1			151330	12/07/12 16:39	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:01	DA	TAL DEN

Client Sample ID: SL-571-SA6-SB-4.5MS — Lab Sample ID: 280-36535-7

Date Collected: 12/03/12 09:09 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.942 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150593	12/06/12 00:41	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-971-SA6-SB-4.5 — Lab Sample ID: 280-36535-8

Date Collected: 12/03/12 09:19 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.681 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150593	12/06/12 02:11	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-9

Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.7 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 02:06	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.5 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 21:46	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-10

Date Collected: 12/03/12 10:40 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 88.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-572-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-10

Date Collected: 12/03/12 10:40
Date Received: 12/04/12 09:00

Matrix: Solid
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 14:44	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:44	TEL	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:44	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:18	HEB	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:56	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:02	DA	TAL DEN

Client Sample ID: SL-572-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-11

Date Collected: 12/03/12 10:55
Date Received: 12/04/12 09:00

Matrix: Solid
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 02:32	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 22:10	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-572-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-12

Date Collected: 12/03/12 10:55
Date Received: 12/04/12 09:00

Matrix: Solid
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.8 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 15:05	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:47	TEL	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 11:46	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:20	HEB	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 16:59	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-12

Date Collected: 12/03/12 10:55 — **Matrix: Solid**
Date Received: 12/04/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:03	DA	TAL DEN

Client Sample ID: SL-572-SA6-SB-3.0 — Lab Sample ID: 280-36535-13

Date Collected: 12/03/12 10:54 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.010 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150835	12/06/12 14:43	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: TB-120312 — Lab Sample ID: 280-36535-14

Date Collected: 12/03/12 08:00 — **Matrix: Water**
Date Received: 12/04/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 mL	5 mL	150591	12/05/12 18:45	TEM	TAL DEN

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-15

Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.3 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 02:56	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.4 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 22:35	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-16

Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 86.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			31.5 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 15:27	TDJ	TAL DEN
Total/NA	Prep	8151A			51.3 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		1			151352	12/10/12 19:17	KJH	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-672-SA6-SB-4.0-5.0

Lab Sample ID: 280-36535-16

Date Collected: 12/03/12 10:45
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8081B		1			151399	12/10/12 22:38	DW	TAL DEN
Total/NA	Leach	Increment, Prep	RA			1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546	RA		31.5 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8081B	RA	1			151827	12/12/12 22:42	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 22:50	TEL	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:03	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:23	HEB	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:01	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:04	DA	TAL DEN

Client Sample ID: SL-672-SA6-SB-4.5

Lab Sample ID: 280-36535-17

Date Collected: 12/03/12 10:50
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.645 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150835	12/06/12 15:13	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-674-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-18

Date Collected: 12/03/12 13:45
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 03:21	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			31.1 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 22:59	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-674-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-19

Date Collected: 12/03/12 13:45
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 15:48	TDJ	TAL DEN
Total/NA	Prep	8151A			50.8 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		5			151352	12/10/12 19:40	KJH	TAL DEN
Total/NA	Analysis	8081B		10			151399	12/11/12 00:02	DW	TAL DEN
Total/NA	Leach	Increment, Prep	RA			1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546	RA		30.2 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8081B	RA	10			151827	12/12/12 22:58	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.18 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:02	TEL	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:05	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:25	HEB	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:03	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:05	DA	TAL DEN

Client Sample ID: SL-674-SA6-SB-3.0

Lab Sample ID: 280-36535-20

Date Collected: 12/03/12 13:50
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.592 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150835	12/06/12 15:43	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-559-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-21

Date Collected: 12/03/12 14:20
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		10			151477	12/11/12 03:46	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		2			151815	12/10/12 11:31	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-559-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-22

Date Collected: 12/03/12 14:20
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.8 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 16:09	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:04	TEL	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:08	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:27	HEB	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:06	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:10	DA	TAL DEN

Client Sample ID: SL-559-SA6-SB-4.0-5.0

Lab Sample ID: 280-36535-23

Date Collected: 12/03/12 14:30
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 04:11	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			31.4 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/07/12 23:48	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-559-SA6-SB-4.0-5.0

Lab Sample ID: 280-36535-24

Date Collected: 12/03/12 14:30
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			31.1 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 16:31	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:07	TEL	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:10	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:30	HEB	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-24

Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1			151330	12/07/12 17:08	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:12	DA	TAL DEN

Client Sample ID: SL-559-SA6-SB-4.5 — Lab Sample ID: 280-36535-25

Date Collected: 12/03/12 14:29 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.294 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150835	12/06/12 16:12	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-26

Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.5 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		10			151477	12/11/12 04:36	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			31.4 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		5			151815	12/10/12 13:09	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-27

Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			31.5 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		20			151804	12/13/12 07:19	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:10	TEL	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:12	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:32	HEB	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:10	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-574-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-27
Date Collected: 12/03/12 13:00
Matrix: Solid
Date Received: 12/04/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:14	DA	TAL DEN

Client Sample ID: SL-574-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-28
Date Collected: 12/03/12 13:15
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 05:01	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			30.7 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/08/12 00:37	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-574-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-29
Date Collected: 12/03/12 13:15
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			30.7 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 17:13	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:13	TEL	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:15	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:35	HEB	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:13	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:15	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-574-SA6-SB-3.0 — Lab Sample ID: 280-36535-30

Date Collected: 12/03/12 13:14 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 95.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.672 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN
Total/NA	Analysis	8015B		1			150835	12/06/12 16:41	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:33	DFB	TAL DEN

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36535-31

Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	150439	12/04/12 18:40	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 05:26	KGV	TAL DEN
Total/NA	Analysis	None		1			152098	12/13/12 15:27	JB	TAL DEN
Total/NA	Prep	3550C			31.1 g	1000 uL	150419	12/04/12 20:25	NC	TAL DEN
Total/NA	Analysis	8015B		1			151812	12/08/12 01:01	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:31	DFB	TAL DEN

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36535-32

Date Collected: 12/03/12 15:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3546			31.7 g	10000 uL	150789	12/06/12 16:10	EJP	TAL DEN
Total/NA	Analysis	8082A		1			151320	12/10/12 17:35	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	150488	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			150768	12/05/12 23:16	TEL	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	150486	12/05/12 13:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			150867	12/06/12 12:17	HEB	TAL DEN
Total/NA	Analysis	6010C		1			151312	12/07/12 19:37	HEB	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	150508	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:15	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151053	12/07/12 12:50	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150408	12/04/12 14:16	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	151468	12/12/12 18:16	DA	TAL DEN

Client Sample ID: SL-664-SA6-SB-2.5 — Lab Sample ID: 280-36535-33

Date Collected: 12/03/12 15:05 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.397 g	5 mL	150457	12/04/12 20:12	RLB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-1

Client Sample ID: SL-664-SA6-SB-2.5

Lab Sample ID: 280-36535-33

Date Collected: 12/03/12 15:05

Matrix: Solid

Date Received: 12/04/12 09:00

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			150835	12/06/12 17:11	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151367	12/10/12 11:35	DFB	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/3/2012

CarrierName: FedEx

AirbillNo: 794208688482

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

3.4 IRL
12412
(W)

COC No: 20121203-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-571-SA6-SB-0.0-0.5	12/3/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-571-SA6-SB-0.0-0.5	12/3/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-571-SA6-SB-4.0-5.0MS	12/3/12 09:10	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X											X											MS/MSD
SL-571-SA6-SB-4.0-5.0MS	12/3/12 09:10	SO	None	1 - 16 oz glass	10 day													X																			MS/MSD
SL-971-SA6-SB-4.0-5.0	12/3/12 09:20	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-971-SA6-SB-4.0-5.0	12/3/12 09:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-571-SA6-SB-4.5MS	12/3/12 09:09	SO	None	9 - Encore	10 day																				X												MS/MSD
SL-971-SA6-SB-4.5	12/3/12 09:19	SO	None	3 - Encore	10 day																				X												
SL-572-SA6-SB-0.0-0.5	12/3/12 10:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-572-SA6-SB-0.0-0.5	12/3/12 10:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-572-SA6-SB-2.5-3.5	12/3/12 10:55	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-572-SA6-SB-2.5-3.5	12/3/12 10:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-572-SA6-SB-3.0	12/3/12 10:54	SO	None	3 - Encore	10 day																				X												
TB-120312	12/3/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-672-SA6-SB-4.0-5.0	12/3/12 10:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-672-SA6-SB-4.0-5.0	12/3/12 10:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-672-SA6-SB-4.5	12/3/12 10:50	SO	None	3 - Encore	10 day																				X												
SL-674-SA6-SB-2.5-3.5	12/3/12 13:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-674-SA6-SB-2.5-3.5	12/3/12 13:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-674-SA6-SB-3.0	12/3/12 13:50	SO	None	3 - Encore	10 day																				X												
SL-559-SA6-SB-0.0-0.5	12/3/12 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-559-SA6-SB-0.0-0.5	12/3/12 14:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA6-SB-4.0-5.0	12/3/12 14:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-559-SA6-SB-4.0-5.0	12/3/12 14:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA6-SB-4.5	12/3/12 14:29	SO	None	3 - Encore	10 day																				X												
SL-574-SA6-SB-0.0-0.5	12/3/12 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-574-SA6-SB-0.0-0.5	12/3/12 13:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-574-SA6-SB-2.5-3.5	12/3/12 13:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-574-SA6-SB-2.5-3.5	12/3/12 13:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-574-SA6-SB-3.0	12/3/12 13:14	SO	None	3 - Encore	10 day																				X												

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/3/2012
CarrierName: FedEx
AirbillNo: 794208688482

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121203-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-664-SA6-SB-2.0-3.0	12/3/12 15:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-664-SA6-SB-2.0-3.0	12/3/12 15:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-664-SA6-SB-2.5	12/3/12 15:05	SO	None	3 - Encore	10 day																				X												

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/03/2012	1600	VWheeler	12/4/12	0900						

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36535-1

Login Number: 36535

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Tuesday, December 04, 2012 1:01 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36535, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty soil samples and one trip blank received at the laboratory on 12/4/12.

The samples were received in acceptable condition at temperatures of 3.0℃ and 2.6℃.

RECEIPT DISCREPANCIES: None

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36535-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088652]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36535-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36535-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/28/2012 11:58:38 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 9
Sample Summary 10
Chronicle 11
Subcontract Data 14
Chain of Custody 64
Receipt Checklists 66

Job ID: 280-36535-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36535-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Twelve soil samples were received under Chain of Custody on December 4, 2012. The samples were received in good condition at temperatures of 3.0°C and 2.6°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36535-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
S	Ion suppression.
*	Surrogate recovery is outside stated control limits.
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-571-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.8	Q J	5.3	0.14	0.5	0.90	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	3.4	J	5.3	0.15	0.1	0.34	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	7.7		5.3	0.17	0.1	0.77	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	8.5		5.3	0.15	0.1	0.85	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	220		5.3	0.22	0.01	2.2	ng/kg	1	☼	1613B	Total
OCDD	5200	B E	11	0.21	0.001	5.2	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.45	Q J	5.3	0.085	0.1	0.045	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.21	Q J	5.3	0.081	0.1	0.021	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.16	Q J	5.3	0.085	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	7.6		5.3	0.12	0.01	0.076	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.28	J	5.3	0.18	0.01	0.0028	ng/kg	1	☼	1613B	Total
OCDF	25		11	0.16	0.001	0.025	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS — Lab Sample ID: 280-36535-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.10	Q J	1.0	0.12	1	0.10	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.062	Q J	5.2	0.070	0.5	0.031	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.11	J	5.2	0.052	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.32	Q J	5.2	0.060	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.32	J	5.2	0.052	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	8.4		5.2	0.062	0.01	0.084	ng/kg	1	☼	1613B	Total
OCDD	270	B	10	0.19	0.001	0.27	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.019	Q B J	5.2	0.048	0.05	0.00095	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.056	Q J	5.2	0.042	0.5	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.098	J	5.2	0.023	0.1	0.0098	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.048	J	5.2	0.024	0.1	0.0048	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.050	Q J	5.2	0.033	0.1	0.0050	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.32	Q B J	5.2	0.040	0.01	0.0032	ng/kg	1	☼	1613B	Total
OCDF	2.2	B J	10	0.057	0.001	0.0022	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-971-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.082	Q J	5.2	0.061	0.1	0.0082	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.63	J	5.2	0.066	0.01	0.0063	ng/kg	1	☼	1613B	Total
OCDD	10	B J	10	0.077	0.001	0.010	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.078	Q J	5.2	0.054	0.1	0.0078	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.063	Q B J	5.2	0.047	0.01	0.00063	ng/kg	1	☼	1613B	Total
OCDF	0.34	B J	10	0.074	0.001	0.00034	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-572-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.36	Q J	1.1	0.19	1	0.36	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	3.8	J	5.7	0.16	0.5	1.9	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	6.6		5.7	0.076	0.1	0.66	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	21		5.7	0.081	0.1	2.1	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	19	C	5.7	0.073	0.1	1.9	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	580		5.7	0.13	0.01	5.8	ng/kg	1	☼	1613B	Total
OCDD	18000	B E	11	0.32	0.001	18	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.40	Q J	1.1	0.10	0.1	0.040	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-572-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36535-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDF	0.50	B J	5.7	0.075	0.05	0.025	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.49	Q J	5.7	0.075	0.5	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.8	C J	5.7	0.049	0.1	0.28	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.64	Q J	5.7	0.048	0.1	0.064	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.72	B J	5.7	0.045	0.1	0.072	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.15	Q J	5.7	0.052	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	30	B	5.7	0.060	0.01	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.6	B J	5.7	0.097	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDF	130	B	11	0.089	0.001	0.13	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-572-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.19	J	5.2	0.052	0.01	0.0019	ng/kg	1	☼	1613B	Total
OCDD	2.3	B J	10	0.056	0.001	0.0023	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.043	Q B J	5.2	0.028	0.1	0.0043	ng/kg	1	☼	1613B	Total
OCDF	0.23	B J	10	0.057	0.001	0.00023	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.21	Q J	5.8	0.089	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.49	J	5.8	0.067	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.5	J	5.8	0.069	0.1	0.25	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.3	C J	5.8	0.064	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	58		5.8	0.062	0.01	0.58	ng/kg	1	☼	1613B	Total
OCDD	720	B	12	0.18	0.001	0.72	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.14	Q J	1.2	0.081	0.1	0.014	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.098	Q J	5.8	0.062	0.5	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.47	Q J	5.8	0.042	0.1	0.047	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.32	J	5.8	0.043	0.1	0.032	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.29	B J	5.8	0.038	0.1	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	12	B	5.8	0.054	0.01	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.2	B J	5.8	0.086	0.01	0.012	ng/kg	1	☼	1613B	Total
OCDF	20	B	12	0.057	0.001	0.020	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.28	Q J	5.7	0.14	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.71	Q J	5.7	0.11	0.1	0.071	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.1	Q J	5.7	0.11	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.1	C J	5.7	0.10	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	58		5.7	0.24	0.01	0.58	ng/kg	1	☼	1613B	Total
OCDD	640	B	11	0.26	0.001	0.64	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.3	Q	1.1	0.17	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.36	B J	5.7	0.16	0.05	0.018	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.61	Q J	5.7	0.14	0.5	0.31	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.6	C J	5.7	0.077	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.88	Q J	5.7	0.077	0.1	0.088	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.48	B J	5.7	0.074	0.1	0.048	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	13	B	5.7	0.13	0.01	0.13	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-674-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36535-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8,9-HpCDF	1.3	Q B J	5.7	0.17	0.01	0.013	ng/kg	1	☼	1613B	Total
OCDF	20	S B	11	0.14	0.001	0.020	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-22

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.3	Q J	11	0.56	0.5	0.65	ng/kg	2	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.3	Q J	11	0.50	0.1	0.23	ng/kg	2	☼	1613B	Total
1,2,3,6,7,8-HxCDD	8.3	J	11	0.51	0.1	0.83	ng/kg	2	☼	1613B	Total
1,2,3,7,8,9-HxCDD	6.8	J C	11	0.48	0.1	0.68	ng/kg	2	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	200		11	0.72	0.01	2.0	ng/kg	2	☼	1613B	Total
OCDD	2500	B	22	1.8	0.001	2.5	ng/kg	2	☼	1613B	Total
2,3,7,8-TCDF	0.81	Q J	2.2	0.46	0.1	0.081	ng/kg	2	☼	1613B	Total
2,3,4,7,8-PeCDF	0.65	Q J	11	0.39	0.5	0.33	ng/kg	2	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.1	Q J	11	0.33	0.1	0.11	ng/kg	2	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.7	J	11	0.35	0.1	0.17	ng/kg	2	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.75	Q B J	11	0.36	0.1	0.075	ng/kg	2	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	13	B	11	0.54	0.01	0.13	ng/kg	2	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.6	B J	11	0.63	0.01	0.026	ng/kg	2	☼	1613B	Total
OCDF	23	B	22	0.87	0.001	0.023	ng/kg	2	☼	1613B	Total

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-24

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.38	Q J	5.2	0.12	0.01	0.0038	ng/kg	1	☼	1613B	Total
OCDD	4.5	B J	10	0.20	0.001	0.0045	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.14	Q J	5.2	0.064	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.18	Q B J	5.2	0.082	0.01	0.0018	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-27

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.3		1.1	0.31	1	1.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	4.8	Q J	5.5	0.31	0.5	2.4	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	9.6		5.5	0.20	0.1	0.96	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	27		5.5	0.20	0.1	2.7	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	24	C	5.5	0.19	0.1	2.4	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	900		5.5	0.26	0.01	9.0	ng/kg	1	☼	1613B	Total
OCDD	17000	B E	11	0.63	0.001	17	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	6.7		1.1	0.21	0.1	0.67	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	2.3	Q B J	5.5	0.28	0.05	0.12	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	9.1		5.5	0.25	0.5	4.6	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	43	C	5.5	0.12	0.1	4.3	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	20	Q	5.5	0.13	0.1	2.0	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	3.8	Q B J	5.5	0.11	0.1	0.38	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.75	J	5.5	0.13	0.1	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	62	B	5.5	0.18	0.01	0.62	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	19	B	5.5	0.26	0.01	0.19	ng/kg	1	☼	1613B	Total
OCDF	150	B	11	0.29	0.001	0.15	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-574-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-29

Client Sample ID: SL-574-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36535-29

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.13	Q J	5.2	0.087	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.14	Q J	5.2	0.067	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.41	J	5.2	0.068	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.50	Q J	5.2	0.064	0.1	0.050	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.8		5.2	0.068	0.01	0.098	ng/kg	1	☼	1613B	Total
OCDD	130	B	10	0.10	0.001	0.13	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.059	Q J	1.0	0.078	0.1	0.0059	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.21	Q J	5.2	0.032	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.17	J	5.2	0.033	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.077	Q J	5.2	0.036	0.1	0.0077	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.43	B J	5.2	0.048	0.01	0.0043	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.14	Q B J	5.2	0.074	0.01	0.0014	ng/kg	1	☼	1613B	Total
OCDF	0.78	B J	10	0.077	0.001	0.00078	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-664-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36535-32

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.42	Q J	5.3	0.092	0.5	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.60	J	5.3	0.069	0.1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.9	J	5.3	0.069	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.5	Q J	5.3	0.065	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	49		5.3	0.098	0.01	0.49	ng/kg	1	☼	1613B	Total
OCDD	450	B	11	0.11	0.001	0.45	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.75	J	1.1	0.071	0.1	0.075	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.50	B J	5.3	0.090	0.05	0.025	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.60	J	5.3	0.074	0.5	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.3	Q J	5.3	0.038	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.61	Q J	5.3	0.039	0.1	0.061	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.44	B J	5.3	0.036	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.15	Q J	5.3	0.045	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	8.3	B	5.3	0.062	0.01	0.083	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.6	Q B J	5.3	0.11	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDF	12	B	11	0.098	0.001	0.012	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36535-2	SL-571-SA6-SB-0.0-0.5	Solid	12/03/12 09:05	12/04/12 09:00
280-36535-4	SL-571-SA6-SB-4.0-5.0MS	Solid	12/03/12 09:10	12/04/12 09:00
280-36535-6	SL-971-SA6-SB-4.0-5.0	Solid	12/03/12 09:20	12/04/12 09:00
280-36535-10	SL-572-SA6-SB-0.0-0.5	Solid	12/03/12 10:40	12/04/12 09:00
280-36535-12	SL-572-SA6-SB-2.5-3.5	Solid	12/03/12 10:55	12/04/12 09:00
280-36535-16	SL-672-SA6-SB-4.0-5.0	Solid	12/03/12 10:45	12/04/12 09:00
280-36535-19	SL-674-SA6-SB-2.5-3.5	Solid	12/03/12 13:45	12/04/12 09:00
280-36535-22	SL-559-SA6-SB-0.0-0.5	Solid	12/03/12 14:20	12/04/12 09:00
280-36535-24	SL-559-SA6-SB-4.0-5.0	Solid	12/03/12 14:30	12/04/12 09:00
280-36535-27	SL-574-SA6-SB-0.0-0.5	Solid	12/03/12 13:00	12/04/12 09:00
280-36535-29	SL-574-SA6-SB-2.5-3.5	Solid	12/03/12 13:15	12/04/12 09:00
280-36535-32	SL-664-SA6-SB-2.0-3.0	Solid	12/03/12 15:00	12/04/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-571-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-2
Date Collected: 12/03/12 09:05
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 01:58	PMP	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2342012	12/07/12 09:21	TN	TAL KNX

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS

Lab Sample ID: 280-36535-4
Date Collected: 12/03/12 09:10
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 96.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 06:34	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:22	TN	TAL KNX

Client Sample ID: SL-971-SA6-SB-4.0-5.0

Lab Sample ID: 280-36535-6
Date Collected: 12/03/12 09:20
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 04:36	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:22	TN	TAL KNX

Client Sample ID: SL-572-SA6-SB-0.0-0.5

Lab Sample ID: 280-36535-10
Date Collected: 12/03/12 10:40
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 05:35	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:22	TN	TAL KNX

Client Sample ID: SL-572-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-12
Date Collected: 12/03/12 10:55
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 96.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 12:30	KBL	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:23	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-672-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-16

Date Collected: 12/03/12 10:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 13:30	KBL	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:23	TN	TAL KNX

Client Sample ID: SL-674-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36535-19

Date Collected: 12/03/12 13:45 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 14:31	KBL	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:23	TN	TAL KNX

Client Sample ID: SL-559-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-22

Date Collected: 12/03/12 14:20 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		2			2342010	12/21/12 20:28	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:24	TN	TAL KNX

Client Sample ID: SL-559-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36535-24

Date Collected: 12/03/12 14:30 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 96.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 16:31	KBL	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:24	TN	TAL KNX

Client Sample ID: SL-574-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36535-27

Date Collected: 12/03/12 13:00 — **Matrix: Solid**
Date Received: 12/04/12 09:00 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 17:30	KBL	TAL KNX
Total	Analysis	1613B		1			2342010	12/26/12 12:30	MAD	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:24	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36535-2

Client Sample ID: SL-574-SA6-SB-2.5-3.5

Lab Sample ID: 280-36535-29

Date Collected: 12/03/12 13:15
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 18:31	KBL	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:25	TN	TAL KNX

Client Sample ID: SL-664-SA6-SB-2.0-3.0

Lab Sample ID: 280-36535-32

Date Collected: 12/03/12 15:00
Matrix: Solid
Date Received: 12/04/12 09:00
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2342010_P	12/07/12 06:00		TAL KNX
Total	Analysis	1613B		1			2342010	12/21/12 19:31	KBL	TAL KNX
Total	Analysis	1613B		1			2342010	12/26/12 13:01	MAD	TAL KNX
Total	Analysis	160.3 MOD		1			2342012	12/07/12 09:25	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L060414 Analytical Report 1

Sample Receipt Documentation 46

Total Number of Pages 49

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36535-2

CDM - SSFL Area IV

Lot #: H2L060414

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

December 27, 2012

ANALYTICAL METHODS SUMMARY

H2L060414

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L060414

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXHHT	001	SL-571-SA6-SB-0.0-0.5	12/03/12	09:05
MXHHV	002	SL-571-SA6-SB-4.0-5.0MS	12/03/12	09:10
MXHHW	003	SL-971-SA6-SB-4.0-5.0	12/03/12	09:20
MXHHX	004	SL-572-SA6-SB-0.0-0.5	12/03/12	10:40
MXHH0	005	SL-572-SA6-SB-2.5-3.5	12/03/12	10:55
MXHH1	006	SL-672-SA6-SB-4.0-5.0	12/03/12	10:45
MXHH2	007	SL-674-SA6-SB-2.5-3.5	12/03/12	13:45
MXHH4	008	SL-559-SA6-SB-0.0-0.5	12/03/12	14:20
MXHH5	009	SL-559-SA6-SB-4.0-5.0	12/03/12	14:30
MXHH6	010	SL-574-SA6-SB-0.0-0.5	12/03/12	13:00
MXHH7	011	SL-574-SA6-SB-2.5-3.5	12/03/12	13:15
MXHH8	012	SL-664-SA6-SB-2.0-3.0	12/03/12	15:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L060414

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For sample SL-559-SA6-SB-0.0-0.5, the recoveries of several internal standards were below their lower control limits. The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met.

For the matrix spike/matrix spike duplicate of sample SL-571-SA6-SB-4.0-5.0MS, the recovery of OCDD was below the lower control limit.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column because the RTx-5 column is not isomer specific for this analyte. The lower of the 2378-TCDF results are reported for each sample. The 2378-TCDF was reported from the primary Rtx-5 column for sample SL-674-SA6-SB-2.5-3.5. The DB-225 analytical column raw data is included in the data package after each Rtx-5 column analysis.

All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF.

Sample SL-559-SA6-SB-0.0-0.5 was analyzed at a 2-fold dilution due to sample matrix in the undiluted analysis.

For samples SL-571-SA6-SB-0.0-0.5, SL-572-SA6-SB-0.0-0.5, and SL-574-SA6-SB-0.0-0.5, OCDD was present at a concentration in excess of the upper calibration limit. The method does not require dilution when OCDD exceeds the upper calibration limit.

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at

PROJECT NARRATIVE
H2L060414

40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

PROJECT NARRATIVE
H2L060414

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

PROJECT NARRATIVE
H2L060414

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995

PROJECT NARRATIVE
H2L060414

Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-571-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 001	**Work Order #....:**	MXHHT1AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	9.8
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.35	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**1.8 Q J**	**5.3**	**0.14**	**1.0**	**1.8**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**3.4 J**	**5.3**	**0.15**	**0.1**	**0.34**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**7.7**	**5.3**	**0.17**	**0.1**	**0.77**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**8.5**	**5.3**	**0.15**	**0.1**	**0.85**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**220**	**5.3**	**0.22**	**0.01**	**2.2**
OCDD	**12/21/12**	**1**	**5200 B E**	**11**	**0.21**	**0.0003**	**1.6**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.21	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.3	0.12	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.3	0.10	0.3	0
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.45 Q J**	**5.3**	**0.085**	**0.1**	**0.045**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.21 Q J**	**5.3**	**0.081**	**0.1**	**0.021**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.16 Q J**	**5.3**	**0.085**	**0.1**	**0.016**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.3	0.10	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**7.6**	**5.3**	**0.12**	**0.01**	**0.076**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**0.28 J**	**5.3**	**0.18**	**0.01**	**0.0028**
OCDF	**12/21/12**	**1**	**25**	**11**	**0.16**	**0.0003**	**0.0075**
Total TEQ Concentration							7.7

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	89	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-571-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 002	**Work Order #....:**	MXHHV1AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	3.6
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**12/21/12**	**1**	**0.10 Q J**	**1.0**	**0.12**	**1.0**	**0.10**
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.062 Q J**	**5.2**	**0.070**	**1.0**	**0.062**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.11 J**	**5.2**	**0.052**	**0.1**	**0.011**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**0.32 Q J**	**5.2**	**0.060**	**0.1**	**0.032**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.32 J**	**5.2**	**0.052**	**0.1**	**0.032**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**8.4**	**5.2**	**0.062**	**0.01**	**0.084**
OCDD	**12/21/12**	**1**	**270 B**	**10**	**0.19**	**0.0003**	**0.081**
2,3,7,8-TCDF	12/21/12	1	ND	1.0	0.069	0.1	0
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.019 Q B J**	**5.2**	**0.048**	**0.03**	**0.00057**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.056 Q J**	**5.2**	**0.042**	**0.3**	**0.017**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.098 J**	**5.2**	**0.023**	**0.1**	**0.0098**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.048 J**	**5.2**	**0.024**	**0.1**	**0.0048**
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.023	0.1	0
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.050 Q J**	**5.2**	**0.033**	**0.1**	**0.0050**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.32 Q B J**	**5.2**	**0.040**	**0.01**	**0.0032**
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.2	0.068	0.01	0
OCDF	**12/21/12**	**1**	**2.2 B J**	**10**	**0.057**	**0.0003**	**0.00066**
Total TEQ Concentration							**0.44**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	(25 - 164)
13C-1,2,3,7,8-PeCDD	89	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	86	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	93	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	68	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-571-SA6-SB-4.0-5.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-971-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 003	**Work Order #....:**	MXHHW1AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	3.5
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.17	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.2	0.099	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.2	0.066	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.2	0.065	0.1	0
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.082 Q J**	**5.2**	**0.061**	**0.1**	**0.0082**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**0.63 J**	**5.2**	**0.066**	**0.01**	**0.0063**
OCDD	**12/21/12**	**1**	**10 B J**	**10**	**0.077**	**0.0003**	**0.0030**
2,3,7,8-TCDF	12/21/12	1	ND	1.0	0.11	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.2	0.065	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.2	0.063	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.2	0.040	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.041	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.039	0.1	0
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.078 Q J**	**5.2**	**0.054**	**0.1**	**0.0078**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.063 Q B J**	**5.2**	**0.047**	**0.01**	**0.00063**
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.2	0.069	0.01	0
OCDF	**12/21/12**	**1**	**0.34 B J**	**10**	**0.074**	**0.0003**	**0.00010**
Total TEQ Concentration							**0.026**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	104	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	109	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-971-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-572-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 004	**Work Order #....:**	MXHHX1AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	12
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**12/21/12**	**1**	**0.36 Q J**	**1.1**	**0.19**	**1.0**	**0.36**
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**3.8 J**	**5.7**	**0.16**	**1.0**	**3.8**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**6.6**	**5.7**	**0.076**	**0.1**	**0.66**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**21**	**5.7**	**0.081**	**0.1**	**2.1**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**19 C**	**5.7**	**0.073**	**0.1**	**1.9**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**580**	**5.7**	**0.13**	**0.01**	**5.8**
OCDD	**12/21/12**	**1**	**18000 B E**	**11**	**0.32**	**0.0003**	**5.4**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.40 Q J**	**1.1**	**0.10**	**0.1**	**0.040**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.50 B J**	**5.7**	**0.075**	**0.03**	**0.015**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.49 Q J**	**5.7**	**0.075**	**0.3**	**0.15**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**2.8 C J**	**5.7**	**0.049**	**0.1**	**0.28**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.64 Q J**	**5.7**	**0.048**	**0.1**	**0.064**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.72 B J**	**5.7**	**0.045**	**0.1**	**0.072**
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.15 Q J**	**5.7**	**0.052**	**0.1**	**0.015**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**30 B**	**5.7**	**0.060**	**0.01**	**0.30**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.6 B J**	**5.7**	**0.097**	**0.01**	**0.016**
OCDF	**12/21/12**	**1**	**130 B**	**11**	**0.089**	**0.0003**	**0.039**
Total TEQ Concentration							**21**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	92	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	103	(24 - 185)
13C-2,3,4,7,8-PeCDF	96	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-572-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-572-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 005	**Work Order #....:**	MXHH01AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	3.6
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.11	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.2	0.080	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.2	0.048	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.2	0.052	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.2	0.047	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**0.19 J**	**5.2**	**0.052**	**0.01**	**0.0019**
OCDD	**12/21/12**	**1**	**2.3 B J**	**10**	**0.056**	**0.0003**	**0.00069**
2,3,7,8-TCDF	12/21/12	1	ND	1.0	0.067	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.2	0.057	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.2	0.052	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.2	0.030	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.032	0.1	0
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.043 Q B J**	**5.2**	**0.028**	**0.1**	**0.0043**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.2	0.042	0.1	0
1,2,3,4,6,7,8-HpCDF	12/21/12	1	ND	5.2	0.038	0.01	0
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.2	0.056	0.01	0
OCDF	**12/21/12**	**1**	**0.23 B J**	**10**	**0.057**	**0.0003**	**0.000069**
Total TEQ Concentration							**0.0070**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	93	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
~~13C-1,2,3,7,8,9-HxCDF~~	~~71~~	~~(29 - 147)~~
13C-1,2,3,4,6,7,8-HpCDF	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-572-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-672-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 006	**Work Order #....:**	MXHH11AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	13
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.2	0.13	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.21 Q J**	**5.8**	**0.089**	**1.0**	**0.21**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.49 J**	**5.8**	**0.067**	**0.1**	**0.049**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**2.5 J**	**5.8**	**0.069**	**0.1**	**0.25**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**1.3 C J**	**5.8**	**0.064**	**0.1**	**0.13**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**58**	**5.8**	**0.062**	**0.01**	**0.58**
OCDD	**12/21/12**	**1**	**720 B**	**12**	**0.18**	**0.0003**	**0.22**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.14 Q J**	**1.2**	**0.081**	**0.1**	**0.014**
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.8	0.071	0.03	0
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.098 Q J**	**5.8**	**0.062**	**0.3**	**0.029**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.47 Q J**	**5.8**	**0.042**	**0.1**	**0.047**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.32 J**	**5.8**	**0.043**	**0.1**	**0.032**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.29 B J**	**5.8**	**0.038**	**0.1**	**0.029**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.8	0.054	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**12 B**	**5.8**	**0.054**	**0.01**	**0.12**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.2 B J**	**5.8**	**0.086**	**0.01**	**0.012**
OCDF	**12/21/12**	**1**	**20 B**	**12**	**0.057**	**0.0003**	**0.0060**
Total TEQ Concentration							**1.7**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	103	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	90	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	94	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	101	(24 - 185)
13C-2,3,4,7,8-PeCDF	98	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-672-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-674-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 007	**Work Order #....:**	MXHH21AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	13
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.23	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.28 Q J**	**5.7**	**0.14**	**1.0**	**0.28**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.71 Q J**	**5.7**	**0.11**	**0.1**	**0.071**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**2.1 Q J**	**5.7**	**0.11**	**0.1**	**0.21**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**2.1 C J**	**5.7**	**0.10**	**0.1**	**0.21**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**58**	**5.7**	**0.24**	**0.01**	**0.58**
OCDD	**12/21/12**	**1**	**640 B**	**11**	**0.26**	**0.0003**	**0.19**
2,3,7,8-TCDF	**12/21/12**	**1**	**1.3 Q**	**1.1**	**0.17**	**0.1**	**0.13**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.36 B J**	**5.7**	**0.16**	**0.03**	**0.011**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.61 Q J**	**5.7**	**0.14**	**0.3**	**0.18**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**1.6 C J**	**5.7**	**0.077**	**0.1**	**0.16**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.88 Q J**	**5.7**	**0.077**	**0.1**	**0.088**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.48 B J**	**5.7**	**0.074**	**0.1**	**0.048**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.7	0.087	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**13 B**	**5.7**	**0.13**	**0.01**	**0.13**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.3 Q B J**	**5.7**	**0.17**	**0.01**	**0.013**
OCDF	**12/21/12**	**1**	**20 S B**	**11**	**0.14**	**0.0003**	**0.0060**
Total TEQ Concentration							**2.3**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	42	(25 - 164)
13C-1,2,3,7,8-PeCDD	54	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	46	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	36	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	46	(23 - 140)
13C-OCDD	39	(17 - 157)
13C-2,3,7,8-TCDF	44	(24 - 169)
13C-1,2,3,7,8-PeCDF	49	(24 - 185)
13C-2,3,4,7,8-PeCDF	49	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	43	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	36	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	39	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	39	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	37	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	37	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	54	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-674-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-559-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 008	**Work Order #....:**	MXHH41AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	2
Prep Batch # ....:	2342010			**Percent Moisture:**	9.1
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	2	ND	2.2	0.71	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**2**	**1.3 Q J**	**11**	**0.56**	**1.0**	**1.3**
1,2,3,4,7,8-HxCDD	**12/21/12**	**2**	**2.3 Q J**	**11**	**0.50**	**0.1**	**0.23**
1,2,3,6,7,8-HxCDD	**12/21/12**	**2**	**8.3 J**	**11**	**0.51**	**0.1**	**0.83**
1,2,3,7,8,9-HxCDD	**12/21/12**	**2**	**6.8 J C**	**11**	**0.48**	**0.1**	**0.68**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**2**	**200**	**11**	**0.72**	**0.01**	**2.0**
OCDD	**12/21/12**	**2**	**2500 B**	**22**	**1.8**	**0.0003**	**0.75**
2,3,7,8-TCDF	**12/21/12**	**2**	**0.81 Q J**	**2.2**	**0.46**	**0.1**	**0.081**
1,2,3,7,8-PeCDF	12/21/12	2	ND	11	0.53	0.03	0
2,3,4,7,8-PeCDF	**12/21/12**	**2**	**0.65 Q J**	**11**	**0.39**	**0.3**	**0.20**
1,2,3,4,7,8-HxCDF	**12/21/12**	**2**	**1.1 Q J**	**11**	**0.33**	**0.1**	**0.11**
1,2,3,6,7,8-HxCDF	**12/21/12**	**2**	**1.7 J**	**11**	**0.35**	**0.1**	**0.17**
2,3,4,6,7,8-HxCDF	**12/21/12**	**2**	**0.75 Q B J**	**11**	**0.36**	**0.1**	**0.075**
1,2,3,7,8,9-HxCDF	12/21/12	2	ND	11	0.46	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**2**	**13 B**	**11**	**0.54**	**0.01**	**0.13**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**2**	**2.6 B J**	**11**	**0.63**	**0.01**	**0.026**
OCDF	**12/21/12**	**2**	**23 B**	**22**	**0.87**	**0.0003**	**0.0069**
Total TEQ Concentration							**6.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	40	(25 - 164)
13C-1,2,3,7,8-PeCDD	46	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	42	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	30	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	34	(23 - 140)
13C-OCDD	16 *	(17 - 157)
13C-2,3,7,8-TCDF	42	(24 - 169)
13C-1,2,3,7,8-PeCDF	44	(24 - 185)
13C-2,3,4,7,8-PeCDF	46	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	46	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	30	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	36	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	34	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	25 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	24 *	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	47	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-559-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-559-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 009	**Work Order #....:**	MXHH51AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	3.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.13	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.2	0.11	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.2	0.083	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.2	0.087	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.2	0.080	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**0.38 Q J**	**5.2**	**0.12**	**0.01**	**0.0038**
OCDD	**12/21/12**	**1**	**4.5 B J**	**10**	**0.20**	**0.0003**	**0.0014**
2,3,7,8-TCDF	12/21/12	1	ND	1.0	0.081	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.2	0.079	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.2	0.065	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.2	0.058	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.053	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.050	0.1	0
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.14 Q J**	**5.2**	**0.064**	**0.1**	**0.014**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.18 Q B J**	**5.2**	**0.082**	**0.01**	**0.0018**
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.2	0.12	0.01	0
OCDF	12/21/12	1	ND	10	0.16	0.0003	0
Total TEQ Concentration							**0.021**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	64	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-559-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-574-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 010	**Work Order #....:**	MXHH61AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	8.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**12/21/12**	**1**	**1.3**	**1.1**	**0.31**	**1.0**	**1.3**
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**4.8 Q J**	**5.5**	**0.31**	**1.0**	**4.8**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**9.6**	**5.5**	**0.20**	**0.1**	**0.96**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**27**	**5.5**	**0.20**	**0.1**	**2.7**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**24 C**	**5.5**	**0.19**	**0.1**	**2.4**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**900**	**5.5**	**0.26**	**0.01**	**9.0**
OCDD	**12/21/12**	**1**	**17000 B E**	**11**	**0.63**	**0.0003**	**5.1**
2,3,7,8-TCDF	**12/26/12**	**1**	**6.7**	**1.1**	**0.21**	**0.1**	**0.67**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**2.3 Q B J**	**5.5**	**0.28**	**0.03**	**0.069**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**9.1**	**5.5**	**0.25**	**0.3**	**2.7**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**43 C**	**5.5**	**0.12**	**0.1**	**4.3**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**20 Q**	**5.5**	**0.13**	**0.1**	**2.0**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**3.8 Q B J**	**5.5**	**0.11**	**0.1**	**0.38**
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.75 J**	**5.5**	**0.13**	**0.1**	**0.075**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**62 B**	**5.5**	**0.18**	**0.01**	**0.62**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**19 B**	**5.5**	**0.26**	**0.01**	**0.19**
OCDF	**12/21/12**	**1**	**150 B**	**11**	**0.29**	**0.0003**	**0.045**
Total TEQ Concentration							**37**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	45	(25 - 164)
13C-1,2,3,7,8-PeCDD	52	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	43	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	38	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	42	(23 - 140)
13C-OCDD	32	(17 - 157)
13C-2,3,7,8-TCDF	42	(24 - 169)
13C-1,2,3,7,8-PeCDF	52	(24 - 185)
13C-2,3,4,7,8-PeCDF	51	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	41	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	35	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	40	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	39	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	34	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	35	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	42	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-574-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-574-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 011	**Work Order #....:**	MXHH71AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	4.1
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.13	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.13 Q J**	**5.2**	**0.087**	**1.0**	**0.13**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.14 Q J**	**5.2**	**0.067**	**0.1**	**0.014**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**0.41 J**	**5.2**	**0.068**	**0.1**	**0.041**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.50 Q J**	**5.2**	**0.064**	**0.1**	**0.050**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**9.8**	**5.2**	**0.068**	**0.01**	**0.098**
OCDD	**12/21/12**	**1**	**130 B**	**10**	**0.10**	**0.0003**	**0.039**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.059 Q J**	**1.0**	**0.078**	**0.1**	**0.0059**
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.2	0.066	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.2	0.058	0.3	0
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.21 Q J**	**5.2**	**0.032**	**0.1**	**0.021**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.17 J**	**5.2**	**0.033**	**0.1**	**0.017**
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.031	0.1	0
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.077 Q J**	**5.2**	**0.036**	**0.1**	**0.0077**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.43 B J**	**5.2**	**0.048**	**0.01**	**0.0043**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**0.14 Q B J**	**5.2**	**0.074**	**0.01**	**0.0014**
OCDF	**12/21/12**	**1**	**0.78 B J**	**10**	**0.077**	**0.0003**	**0.00023**
Total TEQ Concentration							**0.43**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	105	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	98	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	103	(24 - 185)
13C-2,3,4,7,8-PeCDF	102	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	74	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-574-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-664-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L060414 - 012	**Work Order #....:**	MXHH81AC	**Matrix.....:**	SO
Date Sampled....:	12/03/12	**Date Received....:**	12/06/12	**Units....:**	ng/kg
Prep Date....:	12/07/12			**Dilution Factor:**	1
Prep Batch # ....:	2342010			**Percent Moisture:**	5.7
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.13	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.42 Q J**	**5.3**	**0.092**	**1.0**	**0.42**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.60 J**	**5.3**	**0.069**	**0.1**	**0.060**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**1.9 J**	**5.3**	**0.069**	**0.1**	**0.19**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**1.5 Q J**	**5.3**	**0.065**	**0.1**	**0.15**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**49**	**5.3**	**0.098**	**0.01**	**0.49**
OCDD	**12/21/12**	**1**	**450 B**	**11**	**0.11**	**0.0003**	**0.14**
2,3,7,8-TCDF	**12/26/12**	**1**	**0.75 J**	**1.1**	**0.071**	**0.1**	**0.075**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.50 B J**	**5.3**	**0.090**	**0.03**	**0.015**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.60 J**	**5.3**	**0.074**	**0.3**	**0.18**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**1.3 Q J**	**5.3**	**0.038**	**0.1**	**0.13**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.61 Q J**	**5.3**	**0.039**	**0.1**	**0.061**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.44 B J**	**5.3**	**0.036**	**0.1**	**0.044**
1,2,3,7,8,9-HxCDF	**12/21/12**	**1**	**0.15 Q J**	**5.3**	**0.045**	**0.1**	**0.015**
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**8.3 B**	**5.3**	**0.062**	**0.01**	**0.083**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.6 Q B J**	**5.3**	**0.11**	**0.01**	**0.016**
OCDF	**12/21/12**	**1**	**12 B**	**11**	**0.098**	**0.0003**	**0.0036**
Total TEQ Concentration							**2.1**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
13C-1,2,3,7,8-PeCDD	104	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	91	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	101	(24 - 185)
13C-2,3,4,7,8-PeCDF	102	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	99	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-664-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L070000 - 010B	**Work Order #....:**	MXH2J1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/07/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2342010				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.30	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.19	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.12	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.12	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.11	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.13	ng/kg
OCDD	**1.6**	**J**	**10**	**0.16**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.17	ng/kg
1,2,3,7,8-PeCDF	**0.12**	**Q J**	**5.0**	**0.14**	**ng/kg**
2,3,4,7,8-PeCDF	ND		5.0	0.13	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.093	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.096	ng/kg
2,3,4,6,7,8-HxCDF	**0.11**	**Q J**	**5.0**	**0.087**	**ng/kg**
1,2,3,7,8,9-HxCDF	ND		5.0	0.12	ng/kg
1,2,3,4,6,7,8-HpCDF	**0.29**	**J**	**5.0**	**0.10**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.31**	**Q J**	**5.0**	**0.15**	**ng/kg**
OCDF	**0.75**	**Q J**	**10**	**0.16**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	37	25 - 164
13C-1,2,3,7,8-PeCDD	40	25 - 181
13C-1,2,3,4,7,8-HxCDD	37	32 - 141
13C-1,2,3,6,7,8-HxCDD	31	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	38	23 - 140
13C-OCDD	34	17 - 157
13C-2,3,7,8-TCDF	35	24 - 169
13C-1,2,3,7,8-PeCDF	41	24 - 185
13C-2,3,4,7,8-PeCDF	38	21 - 178
13C-1,2,3,4,7,8-HxCDF	34	26 - 152
13C-1,2,3,6,7,8-HxCDF	30	26 - 123
13C-2,3,4,6,7,8-HxCDF	32	28 - 136
13C-1,2,3,7,8,9-HxCDF	32	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	33	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	32	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L070000 - 010B	**Work Order #....:**	MXH2J1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/07/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2342010				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	42	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L060414	**Work Order # ...:**	MXH2J1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L070000 - 010				
Prep Date .....:	12/07/12	**Analysis Date ..:**	12/21/12		
Prep Batch # ...:	2342010				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsl	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**20.4**	**ng/kg**	**102**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**104**	**ng/kg**	**104**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**104**	**ng/kg**	**104**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**95.2**	**ng/kg**	**95**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**106**	**ng/kg**	**106**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**94.6**	**ng/kg**	**95**		**(70 - 140)**
OCDD	**200**	**187**	**ng/kg**	**93**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**18.8**	**ng/kg**	**94**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**97.1**	**ng/kg**	**97**	**B**	**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**96.9**	**ng/kg**	**97**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**97.2**	**ng/kg**	**97**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**98.0**	**ng/kg**	**98**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**97.7**	**ng/kg**	**98**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**97.2**	**ng/kg**	**97**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**95.5**	**ng/kg**	**96**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**93.8**	**ng/kg**	**94**	**B**	**(78 - 138)**
OCDF	**200**	**175**	**ng/kg**	**87**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	36	(20 - 175)
13C-1,2,3,7,8-PeCDD	42	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	36	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	32	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	41	(26 - 166)
13C-OCDD	41	(13 - 199)
13C-2,3,7,8-TCDF	34	(22 - 152)
13C-1,2,3,7,8-PeCDF	44	(21 - 192)
13C-2,3,4,7,8-PeCDF	40	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	35	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	31	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	34	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	36	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	35	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	39	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	40	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L060414	**Work Order # ...:**	MXHHV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L060414 - 002		MXHHV1AE-MSD		
Prep Date .....:	12/07/12	**Analysis Date ..:**	12/21/12		
Prep Batch # ...:	2342010				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsly	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	0.10	20.7	22.6	ng/kg	108	(67 - 158)		
	0.10	20.7	23.0	ng/kg	111	(67 - 158)	2.0	(0 - 25)
1,2,3,7,8-PeCDD	0.062	104	112	ng/kg	108	(70 - 142)		
	0.062	104	114	ng/kg	110	(70 - 142)	1.6	(0 - 25)
1,2,3,4,7,8-HxCDD	0.11	104	107	ng/kg	103	(70 - 164)		
	0.11	104	109	ng/kg	105	(70 - 164)	2.0	(0 - 25)
1,2,3,6,7,8-HxCDD	0.32	104	104	ng/kg	100	(76 - 134)		
	0.32	104	104	ng/kg	100	(76 - 134)	0.070	(0 - 25)
1,2,3,7,8,9-HxCDD	0.32	104	112	ng/kg	107	(64 - 162)		
	0.32	104	104	ng/kg	100	(64 - 162)	6.9	(0 - 25)
1,2,3,4,6,7,8-HpCDD	8.4	104	104	ng/kg	93	(70 - 140)		
	8.4	104	104	ng/kg	92	(70 - 140)	0.080	(0 - 25)
OCDD	270	207	258	ng/kg	0.0 a B	(78 - 144)		
	270	207	233	ng/kg	0.0 a B	(78 - 144)	0.0	(0 - 25)
2,3,7,8-TCDF	ND	20.7	20.9	ng/kg	101 X	(75 - 158)		
	ND	20.7	21.0	ng/kg	101 X	(75 - 158)	0.59	(0 - 25)
1,2,3,7,8-PeCDF	0.019	104	102	ng/kg	98 B	(80 - 134)		
	0.019	104	103	ng/kg	100 B	(80 - 134)	1.6	(0 - 25)
2,3,4,7,8-PeCDF	0.056	104	105	ng/kg	101	(68 - 160)		
	0.056	104	105	ng/kg	101	(68 - 160)	0.22	(0 - 25)
1,2,3,4,7,8-HxCDF	0.098	104	105	ng/kg	101	(72 - 134)		
	0.098	104	107	ng/kg	103	(72 - 134)	1.9	(0 - 25)
1,2,3,6,7,8-HxCDF	0.048	104	105	ng/kg	101	(84 - 130)		
	0.048	104	107	ng/kg	104	(84 - 130)	2.3	(0 - 25)
2,3,4,6,7,8-HxCDF	ND	104	107	ng/kg	103 B	(70 - 156)		
	ND	104	109	ng/kg	105 B	(70 - 156)	1.9	(0 - 25)
1,2,3,7,8,9-HxCDF	0.050	104	106	ng/kg	103	(78 - 130)		
	0.050	104	107	ng/kg	103	(78 - 130)	0.40	(0 - 25)
1,2,3,4,6,7,8-HpCDF	0.32	104	103	ng/kg	99 B	(82 - 122)		
	0.32	104	106	ng/kg	102 B	(82 - 122)	2.6	(0 - 25)
1,2,3,4,7,8,9-HpCDF	ND	104	103	ng/kg	99 B	(78 - 138)		
	ND	104	105	ng/kg	101 B	(78 - 138)	1.9	(0 - 25)
OCDF	2.2	207	197	ng/kg	94 B	(63 - 170)		
	2.2	207	185	ng/kg	88 B	(63 - 170)	6.5	(0 - 25)

SOG_Stnd_msmsd_rev1.rpt 12/26/2012

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L060414	**Work Order # ...:**	MXHHV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L060414 - 002		MXHHV1AE-MSD		
Prep Date .....:	12/07/12	**Analysis Date ..:**	12/21/12		
Prep Batch # ...:	2342010				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsly	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
	67	(25 - 164)
13C-1,2,3,7,8-PeCDD	102	(25 - 181)
	72	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
	68	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	95	(23 - 140)
	79	(23 - 140)
13C-OCDD	93	(17 - 157)
	79	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	105	(24 - 185)
	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	95	(21 - 178)
	71	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
	64	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	89	(26 - 138)
	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)
	85	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L060414	**Work Order # ...:**	MXHHV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L060414 - 002		MXHHV1AE-MSD		
Prep Date .....:	12/07/12	**Analysis Date ..:**	12/21/12		
Prep Batch # ...:	2342010				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsly	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

X See project narrative.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 027B	**Work Order #....:**	MXJG31AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345027				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.36	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.15	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.15	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.15	ng/kg
OCDD	**0.47**	**J**	**10**	**0.14**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.20	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.094	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.084	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.085	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.079	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.090	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.10	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.093	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.13	ng/kg
OCDF	ND		10	0.14	ng/kg

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	25 - 164
13C-1,2,3,7,8-PeCDD	77	25 - 181
13C-1,2,3,4,7,8-HxCDD	80	32 - 141
13C-1,2,3,6,7,8-HxCDD	74	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	79	23 - 140
13C-OCDD	69	17 - 157
13C-2,3,7,8-TCDF	66	24 - 169
13C-1,2,3,7,8-PeCDF	71	24 - 185
13C-2,3,4,7,8-PeCDF	72	21 - 178
13C-1,2,3,4,7,8-HxCDF	73	26 - 152
13C-1,2,3,6,7,8-HxCDF	67	26 - 123
13C-2,3,4,6,7,8-HxCDF	72	28 - 136
13C-1,2,3,7,8,9-HxCDF	77	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	65	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	68	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 027B	**Work Order #....:**	MXJG31AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345027				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	35 - 197

QUALIFIERS

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L060414	**Work Order # ...:**	MXJG31AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L100000 - 027				
Prep Date .....:	12/10/12	**Analysis Date ..:**	12/20/12		
Prep Batch # ...:	2345027				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsl	**Instrument ID..:**	M1A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**19.9**	**ng/kg**	**100**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**99.7**	**ng/kg**	**100**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**98.4**	**ng/kg**	**98**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**		**(70 - 140)**
OCDD	**200**	**201**	**ng/kg**	**101**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.7**	**ng/kg**	**99**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**98.4**	**ng/kg**	**98**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**103**	**ng/kg**	**103**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**106**	**ng/kg**	**106**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**106**	**ng/kg**	**106**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**ng/kg**	**101**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**103**	**ng/kg**	**103**		**(78 - 138)**
OCDF	**200**	**175**	**ng/kg**	**87**		**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(20 - 175)
13C-1,2,3,7,8-PeCDD	73	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	80	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	72	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	71	(26 - 166)
13C-OCDD	62	(13 - 199)
13C-2,3,7,8-TCDF	60	(22 - 152)
13C-1,2,3,7,8-PeCDF	64	(21 - 192)
13C-2,3,4,7,8-PeCDF	67	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	72	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	66	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	70	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	74	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	62	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	62	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L060414

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162174.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36535-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/13/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-571-SA6-SB-0.0-0.5 (280-36535-2)	12/3/12	09:05 Pacific		Solid			X	X		TEQs required
SL-571-SA6-SB-4.0-5.0MS (280-36535-4)	12/3/12	09:10 Pacific		Solid			X	X		TEQs required
SL-571-SA6-SB-4.0-5.0MS (280-36535-4MS)	12/3/12	09:10 Pacific	MS	Solid			X			TEQs required
SL-571-SA6-SB-4.0-5.0MS (280-36535-4MSD)	12/3/12	09:10 Pacific	MSD	Solid			X			TEQs required
SL-971-SA6-SB-4.0-5.0 (280-36535-6)	12/3/12	09:20 Pacific		Solid			X	X		TEQs required
SL-572-SA6-SB-0.0-0.5 (280-36535-10)	12/3/12	10:40 Pacific		Solid			X	X		TEQs required
SL-572-SA6-SB-2.5-3.5 (280-36535-12)	12/3/12	10:55 Pacific		Solid			X	X		TEQs required
SL-672-SA6-SB-4.0-5.0 (280-36535-16)	12/3/12	10:45 Pacific		Solid			X	X		TEQs required
SL-674-SA6-SB-2.5-3.5 (280-36535-19)	12/3/12	13:45 Pacific		Solid			X	X		TEQs required
SL-559-SA6-SB-0.0-0.5 (280-36535-22)	12/3/12	14:20 Pacific		Solid			X	X		TEQs required
SL-559-SA6-SB-4.0-5.0 (280-36535-24)	12/3/12	14:30 Pacific		Solid			X	X		TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 12/5/12 1600	Company TA	Received by:	Date/Time: 12/6/12 1100	Company TA KNOX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L060414

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Urielli, Lisa B	Carrier Tracking No(s):	COC No: 280-162174.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.urielli@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36535-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/13/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-574-SA6-SB-0.0-0.5 (280-36535-27)	12/3/12	13:00 Pacific		Solid			X	X		TEQs required
SL-574-SA6-SB-2.5-3.5 (280-36535-29)	12/3/12	13:15 Pacific		Solid			X	X		TEQs required
SL-664-SA6-SB-2.0-3.0 (280-36535-32)	12/3/12	15:00 Pacific		Solid			X	X		TEQs required
										1 cooler Rec'd @ 0.8°C with custody seal intact 12/6/12
										1 cooler Fed X # 5490 3693 0415

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 12/5/12 1600	Company TA	Received by:	Date/Time: 12/6/12 1100	Company TA Knox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L1612141

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/6/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/3/2012
CarrierName: FedEx
AirbillNo: 794208688482

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

3.4 IRL
12412
(W)

COC No: 20121203-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-571-SA6-SB-0.0-0.5	12/3/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-571-SA6-SB-0.0-0.5	12/3/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-571-SA6-SB-4.0-5.0MS	12/3/12 09:10	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X											X											MS/MSD
SL-571-SA6-SB-4.0-5.0MS	12/3/12 09:10	SO	None	1 - 16 oz glass	10 day													X																			MS/MSD
SL-971-SA6-SB-4.0-5.0	12/3/12 09:20	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-971-SA6-SB-4.0-5.0	12/3/12 09:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-571-SA6-SB-4.5MS	12/3/12 09:09	SO	None	9 - Encore	10 day																				X												MS/MSD
SL-971-SA6-SB-4.5	12/3/12 09:19	SO	None	3 - Encore	10 day																				X												
SL-572-SA6-SB-0.0-0.5	12/3/12 10:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-572-SA6-SB-0.0-0.5	12/3/12 10:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-572-SA6-SB-2.5-3.5	12/3/12 10:55	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-572-SA6-SB-2.5-3.5	12/3/12 10:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-572-SA6-SB-3.0	12/3/12 10:54	SO	None	3 - Encore	10 day																				X												
TB-120312	12/3/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-672-SA6-SB-4.0-5.0	12/3/12 10:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-672-SA6-SB-4.0-5.0	12/3/12 10:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-672-SA6-SB-4.5	12/3/12 10:50	SO	None	3 - Encore	10 day																				X												
SL-674-SA6-SB-2.5-3.5	12/3/12 13:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-674-SA6-SB-2.5-3.5	12/3/12 13:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-674-SA6-SB-3.0	12/3/12 13:50	SO	None	3 - Encore	10 day																				X												
SL-559-SA6-SB-0.0-0.5	12/3/12 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-559-SA6-SB-0.0-0.5	12/3/12 14:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA6-SB-4.0-5.0	12/3/12 14:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-559-SA6-SB-4.0-5.0	12/3/12 14:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA6-SB-4.5	12/3/12 14:29	SO	None	3 - Encore	10 day																				X												
SL-574-SA6-SB-0.0-0.5	12/3/12 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-574-SA6-SB-0.0-0.5	12/3/12 13:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-574-SA6-SB-2.5-3.5	12/3/12 13:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-574-SA6-SB-2.5-3.5	12/3/12 13:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-574-SA6-SB-3.0	12/3/12 13:14	SO	None	3 - Encore	10 day																				X												

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/3/2012
CarrierName: FedEx
AirbillNo: 794208688482

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121203-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-664-SA6-SB-2.0-3.0	12/3/12 15:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-664-SA6-SB-2.0-3.0	12/3/12 15:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-664-SA6-SB-2.5	12/3/12 15:05	SO	None	3 - Encore	10 day																				X												

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/03/2012	1600	VWheeler	12/4/12	0900						

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36535-2

Login Number: 36535

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Tuesday, December 04, 2012 1:01 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36535, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty soil samples and one trip blank received at the laboratory on 12/4/12.

The samples were received in acceptable condition at temperatures of 3.0℃ and 2.6℃.

RECEIPT DISCREPANCIES: None

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36535-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088652]
Attachments: 5

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36589-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/19/2012 9:27:19 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 8
Detection Summary 10
Method Summary 33
Sample Summary 34
Client Sample Results 35
QC Sample Results 93
QC Association 112
Chronicle 125
Chain of Custody 142
Receipt Checklists 146

Job ID: 280-36589-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36589-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Twenty-five soil samples and one trip blank were received under Chain of Custody on December 5, 2012. The samples were received in good condition at temperatures of 4.6°C and 5.1°C.

Chain of Custody 20121204-01 lists sample SL-536-SA5B-SB-0.0-0.5 collected on 7/17/2012 at 09:20 in error. A revised Chain of Custody was received via email on December 5, 2012. Both the original and revised Chains of Custody have been included.

SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that was homogenized. Prior to homogenization, sample volume required for the volatile analyses was logged as one distinct sample, while the volume requiring homogenization was logged with the same sample ID as a second laboratory sample.

The percent moisture analysis was performed on the homogenized sample volume, per project requirements. Data was uploaded from the homogenized moisture results to the associated non-homogenized samples per the project set-up to report the data on a dry weight basis.

Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The percent moisture result from the sample interval surrounding the encore sample has been applied to the TPH-GRO 8015B and/or VOCs 8260B results to report the data on a dry weight basis per project requirements and client instructions.

The 8315 Formaldehyde analysis presented in this report was performed at TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, 615-726-0177.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36589-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
The following samples exhibited surrogate recoveries were recovered outside the QC control limits as detailed below. These anomalies are due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

SL-626-SA6-SB-0.0-0.5 (280-36589-15) recovered Nitrobenzene-d5 at 137% (limits 40-130%)
SL-627-SA6-SB-0.0-0.5 (280-36589-17) recovered Nitrobenzene-d5 at 154% (limits 40-130%)
SL-628-SA6-SB-0.0-0.5 (280-36589-22) recovered Nitrobenzene-d5 at 166% (limits 40-130%)

Job ID: 280-36589-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

SL-631-SA6-SB-0.0-0.5 (280-36589-27) recovered Nitrobenzene-d5 at 174% (limits 40-130%)
SL-632-SA6-SB-0.0-0.5 (280-36589-29) recovered Nitrobenzene-d5 at 328% (limits 40-130%)
SL-629-SA6-SB-0.0-0.5 (280-36589-31) recovered Nitrobenzene-d5 at 318% (limits 40-130%)
SL-630-SA6-SB-0.0-0.5 (280-36589-36) recovered Nitrobenzene-d5 at 244% (limits 40-130%)
SL-536-SA6-SB-0.0-0.5 (280-36589-38) recovered Nitrobenzene-d5 at 134% (limits 40-130%)
SL-549-SA6-SB-0.0-0.5 (280-36589-45) recovered Nitrobenzene-d5 at 140% (limits 40-130%)

A low level of 2-Methylnaphthalene was detected in the method blank associated with prep batch 280- 151130. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

No other anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B
Matrix spikes were not requested for batch 280-150591. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

Matrix spikes were not requested for prep batch 280-150673. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to analytes present above the linear calibration curve, samples SL-536-SA6-SB-0.0-0.5 (280-36589-38) and SL-549-SA6-SB-0.0-0.5 (280-36589-45) had to be analyzed at a 10X and 20X dilution, respectively. The reporting limits have been adjusted relative to the dilutions required.

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-536-SA6-SB-0.0-0.5 (280-36589-38) and SL-549-SA6-SB-0.0-0.5 (280-36589-45), because the extracts were diluted beyond the ability to quantitate recoveries.

No other anomalies were observed.

GC Semivolatiles / Pesticides - SW846 Method 8081B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

TestAmerica Denver’s practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of “primary” and “secondary” results in the data package does not necessarily correlate to “primary” and “confirmation” column results. The use of the designator “primary” in the LIM system indicates the “preferred” result, which may come from either column.

The laboratory noted that samples SL-626-SA6-SB-0.0-0.5 (280-36589-16), SL-628-SA6-SB-0.0-0.5 (280-36589-23), SL-630-SA6-SB-0.0-0.5 (280-36589-37) and SL-632-SA6-SB-0.0-0.5 (280-36589-30) required Florisil clean-up to reduce matrix interferences.

The RPD between the primary and confirmation columns exceeded 40% for several analytes as detailed below. The lower of the two values have been reported, as matrix interference is evident. The results in the analytical report have been flagged with “p”.

Job ID: 280-36589-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

SL-626-SA6-SB-4.0-5.0 (280-36589-16) exceeded 40% for 4,4-DDE
SL-628-SA6-SB-0.0-0.5 (280-36589-23) exceeded 40% for 4,4'-DDE
SL-628-SA6-SB-0.0-0.5 (280-36589-23) exceeded 40% for 4,4-DDT
SL-628-SA6-SB-4.0-5.0 (280-36589-25) exceeded 40% for 4,4-DDT

Surrogate Decachlorobiphenyl was recovered above the QC control limits in sample SL-628-SA6-SB-0.0-0.5 (280-36589-23) on the confirmation column. The surrogate recoveries were in control on the primary column, indicating that the extraction process was in control. This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The analyst noted that samples SL-626-SA6-SB-0.0-0.5 (280-36589-16) and SL-628-SA6-SB-0.0-0.5 (280-36589-23) had numerous non-target peaks and significant baseline rise that could be interfering with the identification and quantitation of target analytes. This inference could cause false positive and/or negative results.

The MS/MSD analyses associated with prep batch 280-151292 were performed on sample SL-626-SA6-SB-0.0-0.5 (280-36589-16). The MS/MSD exhibited percent recoveries outside the QC control limits for Toxaphene. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to analytes present above the linear calibration curve, sample SL-531-SA6-SB-0.0-0.5 (280-36589-5) had to be analyzed at a 50X dilution. The reporting limits have been adjusted relative to the dilution required.

Surrogate recoveries could not be reliably calculated for the diluted analysis of sample SL-531-SA6-SB-0.0-0.5 (280-36589-5), because the extract was diluted beyond the ability to quantitate recoveries.

Surrogate Decachlorobiphenyl was recovered above the QC control limits in samples SL-631-SA6-SB-0.0-0.5 (280-36589-28) and SL-632-SA6-SB-0.0-0.5 (280-36589-30) This is an indicator that data may be biased high. As no detectable concentrations are present in the samples, corrective action is deemed unnecessary.

Samples SL-628-SA6-SB-0.0-0.5 (280-36589-23) and SL-629-SA6-SB-0.0-0.5 (280-36589-32) contained more than one Arochlor component. Please note the results are estimated due to shared peaks.

The MS/MSD analyses associated with prep batch 280-151292 were performed on sample SL-626-SA6-SB-0.0-0.5 (280-36589-16). The MS/MSD exhibited percent recoveries outside the QC control limits for Aroclor 1016 and Aroclor 1260. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / Herbicides - SW846 Method 8151A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

Job ID: 280-36589-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of "primary" and "secondary" results in the data package does not necessarily correlate to "primary" and "confirmation" column results. The use of the designator "primary" in the LIM system indicates the "preferred" result, which may come from either column.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, samples SL-626-SA6-SB-0.0-0.5 (280-36589-16), SL-628-SA6-SB-0.0-0.5 (280-36589-23) and SL-632-SA6-SB-0.0-0.5 (280-36589-30) had to be analyzed at a 5X dilution. The reporting limits have been adjusted relative to the dilutions required. The analyst noted that the sample extracts were yellow in color and analysis at a lesser dilution would jeopardize the integrity of the instrument.

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-626-SA6-SB-0.0-0.5 (280-36589-16), SL-628-SA6-SB-0.0-0.5 (280-36589-23) and SL-632-SA6-SB-0.0-0.5 (280-36589-30) because the extracts were diluted beyond the ability to quantitate recoveries.

The RPD between the primary and confirmation columns exceeded 40% for 2,4-DB in sample SL-630-SA6-SB-0.0-0.5 (280-36589-37). The lower of the two values has been reported, as matrix interference is evident. The result in the analytical report has been flagged with "p".

The MS/MSD analyses associated with prep batch 280-150882 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries and relative percent difference (RPD) data outside the QC control limits for several compounds. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

IC / Hexavalent Chromium - SW846 Method 7199
Due to the high ionic strength of digestate (3060A - Alkiline digestion for Hexavalent Chromium) all digestates (including QC) must be diluted 10X prior to being loaded onto the instrument.

The sample matrix has been determined to be reductive in nature for sample SL-546-SA6-SB-6.5-7.5 (280-36589-42).

The MS/MSD analyses associated with prep batch 440-73329 were performed on a sample from another client and/or job. The MS/MSD exhibited the matrix spike duplicate (MSD) percent recovery outside the QC control limits for Hexavalent Chromium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

HPLC / Formaldehyde - SW846 Method 8315A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7471B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

Job ID: 280-36589-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

The 6010C MS/MSD analyses associated with prep batch 280-151000 were performed on sample SL-549-SA6-SB-0.0-0.5 (280-36589-46). The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-151004 were performed on sample SL-549-SA6-SB-0.0-0.5 (280-36589-46). The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony and Chromium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
F	MS or MSD exceeds the control limits
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.
F	RPD of the MS and MSD exceeds the control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: TB-120412 — Lab Sample ID: 280-36589-1

No Detections

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.35	J	11	0.29	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.79	J B	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.30	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	0.91	J	11	0.83	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.7	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	1.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.7	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.6	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.2	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.43	J	11	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.4	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	1.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.2		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	13		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.2	J	5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	17		4.5	0.76	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	1.5	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2300		55	16	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		37	4.2	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	41	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3600		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	230	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	290		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	2900	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	550	65	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.54	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	3.3	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	840		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	9.5	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.023	J	8.7	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.7	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	94	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.71	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.26	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.3	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	10	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	11	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.42	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.90		0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.050	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-529-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.36	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	33	J	62	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	68	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.029		0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.89		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.35	J	12	0.19	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.0	J	12	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.1	J	12	0.86	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.9	J	12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.7	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	2.6	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.40	J	12	0.38	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	2.0	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	2.3	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.4		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	5.9	J	12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.5	J	5.8	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	8.2		4.7	0.79	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	2500		990	320	ug/Kg	50	☼	8082A	Total/NA
Aroclor 5460	5800		2900	960	ug/Kg	50	☼	8082A	Total/NA
Aluminum	10000	J	23000	1.8	mg/Kg	1	☼	6010C	Total/NA
Calcium	2300		58	16	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		40	4.4	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	43	0.35	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4000		12	4.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	580	0.12	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		12	1.9	mg/Kg	1	☼	6010C	Total/NA
Potassium	2800	J	7500	48	mg/Kg	1	☼	6010C	Total/NA
Sodium	79	J	580	69	mg/Kg	1	☼	6010C	Total/NA
Strontium	9.6		0.58	0.042	mg/Kg	1	☼	6010C	Total/NA
Tin	3.3	J	13	1.1	mg/Kg	1	☼	6010C	Total/NA
Titanium	820		1.2	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	10	0.41	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.020	J	8.6	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.3	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	68	J	140	0.069	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.45	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.16	J	0.98	0.0092	mg/Kg	1	☼	6020A	Total/NA
Chromium	15	J	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J	21	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	6.0	J	29	0.070	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-531-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.7	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.35	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.8	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.58	J	0.64	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.028	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J	0.45	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	29	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	53	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.026	0.0071	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.58		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.42	J	12	0.30	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.76	J B	12	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.62	J	12	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	1.6	J	12	0.20	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	5.4	J	12	0.83	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	16		12	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	11	J	12	0.85	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	20		12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	6.3	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	6.0	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	21		12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	1.5	J	12	1.5	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	22		12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	0.59	J	12	0.54	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	7.2	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.86	J	12	0.38	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	5.1	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	24		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	17		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	29		12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	11		5.8	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	41		4.6	0.78	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1260	66		20	3.1	ug/Kg	1	☼	8082A	Total/NA
Aluminum	12000	J	23000	1.8	mg/Kg	1	☼	6010C	Total/NA
Boron	2.1	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	4900		57	16	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		39	4.4	mg/Kg	1	☼	6010C	Total/NA
Lithium	19	J	42	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4000		11	4.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	570	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	430		11	1.9	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-532-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	2800	J	7300	47	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	570	68	mg/Kg	1	☼	6010C	Total/NA
Strontium	19		0.57	0.041	mg/Kg	1	☼	6010C	Total/NA
Tin	3.6	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	9.9	0.41	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.026	J	9.2	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.4	J	16	0.053	mg/Kg	1	☼	6020A	Total/NA
Barium	120	J	150	0.074	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.43	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.54	J	1.1	0.0099	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	39	0.080	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.6	J	22	0.0070	mg/Kg	1	☼	6020A	Total/NA
Copper	15	J	31	0.075	mg/Kg	1	☼	6020A	Total/NA
Lead	17	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.48	J	5.6	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	10	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.61	J	0.69	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.046	J	0.83	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.22	J	0.48	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	41	J	65	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	89	J	120	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.14		0.024	0.0066	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	8.23		0.100	0.100	SU	1		9045D	Total/NA
Temperature	16.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.22	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.34	J	11	0.19	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.4	J	11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.4	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.8	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	0.98	J	11	0.53	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.53	J	11	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.6	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	1.4	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.14		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	11		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	2.3	J	5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	14		4.6	0.77	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.6	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		36	4.0	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-533-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	27	J	39	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3600		10	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	320	J	520	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	460		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3600	J	6700	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	76	J	520	62	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.52	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	3.2	J	11	0.95	mg/Kg	1	☼	6010C	Total/NA
Titanium	810		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	9.0	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.025	J	9.4	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.0	J	16	0.055	mg/Kg	1	☼	6020A	Total/NA
Barium	96	J	150	0.076	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.59	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.31	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	40	0.082	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.6	J	23	0.0072	mg/Kg	1	☼	6020A	Total/NA
Copper	9.0	J	31	0.077	mg/Kg	1	☼	6020A	Total/NA
Lead	12	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.45	J	5.7	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.81		0.71	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.062	J	0.86	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	28	J	67	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	65	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.056		0.027	0.0073	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.17		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.8		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.40	J	11	0.30	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.49	J B	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.40	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.6	J	11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	0.59	J	11	0.54	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.65	J	11	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	1.3	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.16		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	11	J	12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.0	J	5.8	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	15		4.6	0.79	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-11

Client Sample ID: SL-534-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	1.8	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		37	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	40	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3500		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3300	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	540	64	mg/Kg	1	☼	6010C	Total/NA
Strontium	20		0.54	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	3.6	J	12	0.99	mg/Kg	1	☼	6010C	Total/NA
Titanium	900		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	9.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.022	J	9.3	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.3	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	150	0.075	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.68	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.44	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	15	J	39	0.081	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.1	J	22	0.0071	mg/Kg	1	☼	6020A	Total/NA
Copper	8.3	J	31	0.076	mg/Kg	1	☼	6020A	Total/NA
Lead	13	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.52	J	5.7	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.71		0.70	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.082	J	0.84	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J	0.49	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	28	J	66	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	77	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.060		0.025	0.0070	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.68		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	2.9	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	4.3		4.1	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	19000		19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.1	J	9.1	0.92	mg/Kg	1	☼	6010C	Total/NA
Calcium	1300		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		32	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	26	J	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3500		9.4	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	150	J	460	0.094	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-534-SA6-SB-3.0-4.0 (Continued) — Lab Sample ID: 280-36589-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phosphorus	220		9.4	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2000	J	6000	38	mg/Kg	1	☼	6010C	Total/NA
Sodium	200	J	470	55	mg/Kg	1	☼	6010C	Total/NA
Strontium	15		0.46	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	3.5	J	10	0.86	mg/Kg	1	☼	6010C	Total/NA
Titanium	850		0.93	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	8.1	0.33	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.7	J	15	0.052	mg/Kg	1	☼	6020A	Total/NA
Barium	72	J	140	0.073	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.71	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.13	J	1.0	0.0097	mg/Kg	1	☼	6020A	Total/NA
Chromium	15	J	38	0.078	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.4	J	22	0.0068	mg/Kg	1	☼	6020A	Total/NA
Copper	5.6	J	30	0.073	mg/Kg	1	☼	6020A	Total/NA
Lead	6.1	J	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.51	J	5.5	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	9.6	J	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.1		0.67	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.062	J	0.81	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	29	J	64	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	54	J	110	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.023	0.0063	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.69		0.100	0.100	SU	1		9045D	Total/NA
Temperature	16.8		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-534-SA6-SB-3.5 — Lab Sample ID: 280-36589-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	0.33	J	1.0	0.33	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.77	J	11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.1	J B	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.95	J	11	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.78	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	0.78	J	11	0.78	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.2	J	11	0.80	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	3.3	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	2.1	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	3.7	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	4.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	2.6	J	11	0.51	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.6	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	2.8	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	3.7	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	3.6	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.7		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	26		11	1.1	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-626-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
EFH (C15-C20)	2.1	J	5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	13		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	42		4.4	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	1.2	J p	3.7	0.27	ug/Kg	1	☼	8081B	Total/NA
4,4'-DDT	6.5		3.7	0.66	ug/Kg	1	☼	8081B	Total/NA
Aluminum	11000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.3	J	9.5	0.96	mg/Kg	1	☼	6010C	Total/NA
Calcium	3100		49	14	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		33	3.7	mg/Kg	1	☼	6010C	Total/NA
Lithium	25	J	36	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5100		9.8	3.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	320	J	480	0.098	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	470		9.8	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3300	J	6200	40	mg/Kg	1	☼	6010C	Total/NA
Sodium	91	J	490	58	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.48	0.035	mg/Kg	1	☼	6010C	Total/NA
Tin	3.4	J	11	0.89	mg/Kg	1	☼	6010C	Total/NA
Titanium	870		0.97	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	8.4	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.026	J	9.6	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.4	J	16	0.056	mg/Kg	1	☼	6020A	Total/NA
Barium	83	J	150	0.078	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.46	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.29	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	22	J	40	0.084	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.1	J	23	0.0073	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	9.9	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.30	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	15	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.53	J	0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.17	J	0.87	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.23	J	0.51	0.0039	mg/Kg	1	☼	6020A	Total/NA
Vanadium	37	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	100	J	120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.024	0.0065	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.35		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.2	J	11	0.30	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.7	J B	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	1.0	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	1.4	J	11	0.19	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-627-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	1.6	J	11	0.82	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	2.0	J	11	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	2.1	J	11	0.85	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	6.4	J	11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	4.2	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	1.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	7.3	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	9.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	6.8	J	11	0.54	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	3.2	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	5.0	J	11	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	9.2	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	7.5	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	3.3		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	31		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.9	J	5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	15		5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	49		4.6	0.78	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9800	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	1.3	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	16000		37	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	40	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3700		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	340		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	82	J	540	64	mg/Kg	1	☼	6010C	Total/NA
Strontium	12		0.54	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	3.0	J	12	0.99	mg/Kg	1	☼	6010C	Total/NA
Titanium	770		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	9.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.021	J	8.8	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.2	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	68	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.38	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.26	J	1.0	0.0095	mg/Kg	1	☼	6020A	Total/NA
Chromium	14	J	37	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.8	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	7.3	J	29	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	12	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.28	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	9.5	J	29	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.52	J	0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.13	J	0.80	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.19	J	0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	24	J	63	0.039	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-627-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	63	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.013	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.98		0.100	0.100	SU	1		9045D	Total/NA
Temperature	16.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — Lab Sample ID: 280-36589-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.36	J	11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.66	J B	11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.1	J	11	0.96	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.6	J	11	0.79	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	5.0	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	3.6	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	3.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	3.1	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.9	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.0	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	2.4	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	2.9	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	2.4		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	38		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.5	J	5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	29		5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	69		4.5	0.76	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — Lab Sample ID: 280-36589-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9900	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	0.96	J	9.3	0.94	mg/Kg	1	☼	6010C	Total/NA
Calcium	2000		48	13	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		33	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	35	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3700		9.6	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	410	J	470	0.096	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	340		9.6	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2600	J	6100	39	mg/Kg	1	☼	6010C	Total/NA
Sodium	80	J	480	56	mg/Kg	1	☼	6010C	Total/NA
Strontium	12		0.47	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	2.8	J	10	0.87	mg/Kg	1	☼	6010C	Total/NA
Titanium	700		0.95	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	8.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.028	J	9.1	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.9	J	16	0.053	mg/Kg	1	☼	6020A	Total/NA
Barium	69	J	150	0.074	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.44	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.29	J	1.0	0.0098	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	38	0.079	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J	22	0.0069	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-627-SA6-SB-1.0-2.0 (Continued) — Lab Sample ID: 280-36589-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	11	J	30	0.074	mg/Kg	1	☼	6020A	Total/NA
Lead	15	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.38	J	5.5	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.54	J	0.69	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.17	J	0.83	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.19	J	0.48	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	27	J	65	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	73	J	120	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.026	0.0073	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.04		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-627-SA6-SB-1.5 — Lab Sample ID: 280-36589-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	0.47	J	1.3	0.42	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.1	J	11	0.30	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.8	J B	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	4.5	J	11	0.82	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	36		11	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	40		11	0.85	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	43		11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	30		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	11		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	77		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	8.4	J	11	1.5	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	45		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	22		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	3.9	J	11	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	22		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	44		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	58		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	48		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.9	J	5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	27		5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	78		4.6	0.78	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	2.7	J p	3.8	0.27	ug/Kg	1	☼	8081B	Total/NA
4,4'-DDT	12	p	3.8	0.68	ug/Kg	1	☼	8081B	Total/NA
Aroclor 1254	110		20	6.3	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	79		20	3.0	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	310		57	19	ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SL-628-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	10000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.7	J	9.8	0.99	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	16000		34	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	19	J	38	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3600		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	230	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	310		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	86	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.50	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	2.9	J	11	0.92	mg/Kg	1	☼	6010C	Total/NA
Titanium	760		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.037	J	9.5	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.7	J	16	0.055	mg/Kg	1	☼	6020A	Total/NA
Barium	76	J	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.47	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.49	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.3	J	23	0.0072	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	26	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.39	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.60	J	0.71	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.43	J	0.86	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.20	J	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	28	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	90	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.049		0.025	0.0070	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.30		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36589-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	7.0	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.2	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	8.9		4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36589-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	0.85	J p	3.3	0.58	ug/Kg	1	☼	8081B	Total/NA
Aluminum	11000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.3	J	9.6	0.97	mg/Kg	1	☼	6010C	Total/NA
Calcium	2800		49	14	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	31	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-628-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36589-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	6900		9.9	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	220	J	490	0.099	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	420		9.9	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	1900	J	6300	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	150	J	490	58	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.49	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	3.5	J	11	0.90	mg/Kg	1	☼	6010C	Total/NA
Titanium	930		0.98	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.81	J	8.5	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.020	J	8.7	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.2	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	82	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.48	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.15	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	21	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.4	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	10	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	5.7	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.27	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	15	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.64	J	0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.11	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.22	J	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	38	J	62	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	59	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.012	J	0.024	0.0066	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.87		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-628-SA6-SB-4.5 — Lab Sample ID: 280-36589-26

No Detections

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	3.4	J	12	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	4.4	J B	12	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	2.9	J	12	0.86	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	2.0	J	12	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	5.1	J	12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	2.4	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	6.8	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	8.6	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.4	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	17		12	0.39	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	14		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	7.4	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.95		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	25		12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.9	J	6.1	1.2	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-631-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
EFH (C21-C30)	12		6.1	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	40		4.8	0.82	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	3.7	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	4900		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5500		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	400	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	540		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	4100	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	87	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	24		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.7	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.033	J	9.3	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.6	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	88	J	150	0.075	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.50	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.30	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	39	0.081	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.9	J	22	0.0071	mg/Kg	1	☼	6020A	Total/NA
Copper	9.8	J	31	0.076	mg/Kg	1	☼	6020A	Total/NA
Lead	14	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.39	J	5.7	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	14	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.67	J	0.70	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.11	J	0.85	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J	0.49	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	34	J	66	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	72	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.025	J	0.028	0.0078	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.93		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.6	J	12	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	2.4	J B	12	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	6.6	J	12	0.19	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	3.3	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	3.8	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.1	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	5.6	J	12	0.38	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-632-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	7.5	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	3.3	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.21		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	80		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	4.0	J	5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	43		5.7	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	130		4.5	0.77	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	2.8	J	3.9	0.28	ug/Kg	1	☼	8081B	Total/NA
4,4'-DDT	4.1		3.9	0.70	ug/Kg	1	☼	8081B	Total/NA
Aluminum	12000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.6	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	1600		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4900		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	450		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3600	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	62	J	520	61	mg/Kg	1	☼	6010C	Total/NA
Strontium	9.3		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.5	J	11	0.94	mg/Kg	1	☼	6010C	Total/NA
Titanium	920		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	8.9	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.026	J	9.2	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.8	J	16	0.053	mg/Kg	1	☼	6020A	Total/NA
Barium	69	J	150	0.074	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.46	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.21	J	1.1	0.0099	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	39	0.080	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J	22	0.0070	mg/Kg	1	☼	6020A	Total/NA
Copper	9.1	J	31	0.075	mg/Kg	1	☼	6020A	Total/NA
Lead	12	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.34	J	5.6	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.61	J	0.69	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.084	J	0.83	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J	0.48	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	65	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	61	J	120	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.024	J	0.027	0.0074	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	5.73		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-31

Client Sample ID: SL-629-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	3.0	J	12	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	4.8	J B	12	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	7.1	J	12	0.86	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	7.4	J	12	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	9.1	J	12	0.88	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	19		12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	12		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	5.4	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	22		12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	2.3	J	12	1.6	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	18		12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	10	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	14		12	0.39	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	18		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	18		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	15		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	75		12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	3.9	J	6.1	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	45		6.1	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C8-C11)	1.3	J	6.1	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	130		4.9	0.83	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	110		21	6.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	94		21	3.3	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	75		62	20	ug/Kg	1	☼	8082A	Total/NA
Aluminum	14000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	3.8	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	4100		56	16	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		38	4.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	41	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4700		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	290	J	550	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	450		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3500	J	7200	46	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	560	66	mg/Kg	1	☼	6010C	Total/NA
Strontium	26		0.55	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	3.9	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	960		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	9.6	0.40	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.039	J	9.6	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.6	J	16	0.056	mg/Kg	1	☼	6020A	Total/NA
Barium	94	J	150	0.078	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.52	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.67	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	21	J	40	0.084	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.2	J	23	0.0073	mg/Kg	1	☼	6020A	Total/NA
Copper	14	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	43		37	0.020	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-629-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.56	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	15	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.65	J	0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.59	J	0.87	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J	0.51	0.0039	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	120		120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.098		0.026	0.0071	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.24		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.6		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36589-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	2.0	J	10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	1.5	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.7	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.5	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	0.91	J	10	0.48	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.3	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.38	J	10	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.2	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	1.6	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	0.34		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	11		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.7	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	15		4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36589-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.4	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	2500		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	21000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	32	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5300		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	230	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	310		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3100	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.7	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	990		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.019	J	8.3	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	6.4	J	14	0.048	mg/Kg	1	☼	6020A	Total/NA
Barium	89	J	130	0.067	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.65	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.24	J	0.95	0.0089	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-629-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36589-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	26	J	35	0.072	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.7	J	20	0.0063	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	8.1	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.38	J	5.0	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	17	J	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.79		0.62	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.15	J	0.75	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.29	J	0.44	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	45	J	59	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	65	J	100	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.011	J	0.024	0.0066	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.57		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-629-SA6-SB-3.0 — Lab Sample ID: 280-36589-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	0.39	J	1.1	0.35	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.5	J	12	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	2.4	J B	12	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	2.0	J	12	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	2.2	J	12	0.88	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	4.7	J	12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	2.9	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	5.6	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	5.5	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.5	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	5.6	J	12	0.39	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	7.8	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	5.4	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	3.1		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	40		13	1.3	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	5.2	J	6.3	1.3	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	31		6.3	1.3	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	78		5.0	0.85	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	1.2	J	4.0	0.29	ug/Kg	1	☼	8081B	Total/NA
4,4'-DDT	2.9	J	4.0	0.71	ug/Kg	1	☼	8081B	Total/NA
2,4-DB	10	J p	96	9.0	ug/Kg	1	☼	8151A	Total/NA
MCPA	2600	J	7800	2400	ug/Kg	1	☼	8151A	Total/NA
Aluminum	13000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	3.6	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-630-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	3500		55	16	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		37	4.2	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	41	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5200		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	320	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	430		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3800	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	75	J	550	65	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.54	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	3.6	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	960		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	9.5	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.041	J	10	0.016	mg/Kg	1	☼	6020A	Total/NA
Arsenic	6.3	J	17	0.059	mg/Kg	1	☼	6020A	Total/NA
Barium	110	J	160	0.082	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.71	J	1.3	0.026	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.34	J	1.2	0.011	mg/Kg	1	☼	6020A	Total/NA
Chromium	26	J	43	0.088	mg/Kg	1	☼	6020A	Total/NA
Cobalt	7.9	J	24	0.0077	mg/Kg	1	☼	6020A	Total/NA
Copper	13	J	34	0.083	mg/Kg	1	☼	6020A	Total/NA
Lead	17	J	40	0.021	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.57	J	6.2	0.020	mg/Kg	1	☼	6020A	Total/NA
Nickel	17	J	34	0.029	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.74	J	0.76	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.12	J	0.92	0.024	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.31	J	0.53	0.0041	mg/Kg	1	☼	6020A	Total/NA
Vanadium	47	J	72	0.045	mg/Kg	1	☼	6020A	Total/NA
Zinc	81	J	130	0.37	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.024	J	0.028	0.0077	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.66		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.95	J	11	0.27	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.84	J B	11	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.5	J	11	0.76	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	31		11	0.95	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	20		11	0.78	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	87		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	40		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	130		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	18		11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	17		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	3.3	J	11	0.49	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	12		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.83	J	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	24		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	54		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	51		0.0050	0.00074	ug/Kg	1		None	Total/NA

Client Sample ID: SL-536-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	230		100	10	mg/Kg	10	☼	8015B	Total/NA
EFH (C21-C30)	350		52	10	mg/Kg	10	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	580		42	7.1	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	11000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	1700		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	22000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	16	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3300		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	170	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	420		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2300	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	170	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.50	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	4.1	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	940		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.86	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.016	J	8.9	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	8.4	J	15	0.052	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	140	0.072	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.71	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.12	J	1.0	0.0096	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	37	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.4	J	21	0.0068	mg/Kg	1	☼	6020A	Total/NA
Copper	12	J	30	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	9.3	J	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	1.1	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.3	J	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.2		0.67	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.045	J	0.80	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.52		0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	41	J	63	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	70	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0091	J	0.026	0.0072	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.41		0.100	0.100	SU	1		9045D	Total/NA
Temperature	17.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.59	J	10	0.49	ug/Kg	1	☼	8270C SIM	Total/NA
C30-C40	18		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	7.4		5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	26		4.2	0.72	mg/Kg	1	☼	8015B	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9400	J	18000	1.4	mg/Kg	1	☼	6010C	Total/NA
Calcium	2900		45	13	mg/Kg	1	☼	6010C	Total/NA
Iron	16000		31	3.5	mg/Kg	1	☼	6010C	Total/NA
Lithium	22	J	34	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3900		9.1	3.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	210	J	450	0.091	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	310		9.1	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2600	J	5800	37	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	450	54	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.45	0.033	mg/Kg	1	☼	6010C	Total/NA
Tin	3.4	J	9.9	0.83	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		0.90	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.74	J	7.8	0.32	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.015	J	8.4	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.3	J	14	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	77	J	140	0.068	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.36	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.12	J	0.97	0.0091	mg/Kg	1	☼	6020A	Total/NA
Chromium	13	J	36	0.073	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.5	J	20	0.0064	mg/Kg	1	☼	6020A	Total/NA
Copper	5.9	J	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	3.2	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.21	J	5.1	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.5	J	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.59	J	0.63	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.020	J	0.76	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.22	J	0.44	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	27	J	60	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	53	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.95		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — Lab Sample ID: 280-36589-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.54	J	11	0.50	ug/Kg	1	☼	8270C SIM	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	0.90	J	4.2	0.71	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — Lab Sample ID: 280-36589-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	11000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	870		53	15	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	9.7	J	39	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2200		11	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	110	J	520	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	150		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2400	J	6700	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	150	J	530	62	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-546-SA6-SB-6.5-7.5 (Continued) — Lab Sample ID: 280-36589-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Strontium	10		0.52	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	3.6	J	11	0.96	mg/Kg	1	☼	6010C	Total/NA
Titanium	810		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.91	J	9.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.7	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	34	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.49	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.069	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	7.4	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	2.0	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	3.5	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	5.7	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.42	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	3.2	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.78		0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.48		0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	26	J	62	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	54	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.00		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.9		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-546-SA6-SB-7.0 — Lab Sample ID: 280-36589-44

No Detections

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.2	J	11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.1	J B	11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.46	J	11	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.3	J	11	0.77	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	26		11	0.96	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	28		11	0.79	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	88		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	40		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	95		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	20		11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	9.7	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	1.3	J	11	0.50	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.78	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	20		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	27		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	59		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	900		210	21	mg/Kg	20	☼	8015B	Total/NA
EFH (C21-C30)	840		110	21	mg/Kg	20	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	1700		85	14	mg/Kg	20	☼	8015B	Total/NA

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-46

Client Sample ID: SL-549-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9700	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	39	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3900		10	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	520	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	320		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700	J	6700	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	520	62	mg/Kg	1	☼	6010C	Total/NA
Strontium	11		0.52	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	3.5	J	11	0.96	mg/Kg	1	☼	6010C	Total/NA
Titanium	920		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.86	J	9.0	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.016	J	9.1	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.1	J	16	0.053	mg/Kg	1	☼	6020A	Total/NA
Barium	76	J	150	0.074	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.40	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.13	J	1.0	0.0098	mg/Kg	1	☼	6020A	Total/NA
Chromium	14	J	39	0.080	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.2	J	22	0.0069	mg/Kg	1	☼	6020A	Total/NA
Copper	7.2	J	30	0.075	mg/Kg	1	☼	6020A	Total/NA
Lead	3.8	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.22	J	5.6	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.3	J	30	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.61	J	0.69	0.14	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.48	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	29	J	65	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	61	J	120	0.33	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	8.50		0.100	0.100	SU	1		9045D	Total/NA
Temperature	18.8		1.00	1.00	Degrees C	1		9045D	Total/NA

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8081B	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36589-1	TB-120412	Water	12/04/12 08:00	12/05/12 10:00
280-36589-2	SL-529-SA6-SB-0.0-0.5	Solid	12/04/12 09:45	12/05/12 10:00
280-36589-3	SL-529-SA6-SB-0.0-0.5	Solid	12/04/12 09:45	12/05/12 10:00
280-36589-4	SL-531-SA6-SB-0.0-0.5	Solid	12/04/12 08:10	12/05/12 10:00
280-36589-5	SL-531-SA6-SB-0.0-0.5	Solid	12/04/12 08:10	12/05/12 10:00
280-36589-6	SL-532-SA6-SB-0.0-0.5	Solid	12/04/12 07:45	12/05/12 10:00
280-36589-7	SL-532-SA6-SB-0.0-0.5	Solid	12/04/12 07:45	12/05/12 10:00
280-36589-8	SL-533-SA6-SB-0.0-0.5	Solid	12/04/12 08:40	12/05/12 10:00
280-36589-9	SL-533-SA6-SB-0.0-0.5	Solid	12/04/12 08:40	12/05/12 10:00
280-36589-10	SL-534-SA6-SB-0.0-0.5	Solid	12/04/12 09:05	12/05/12 10:00
280-36589-11	SL-534-SA6-SB-0.0-0.5	Solid	12/04/12 09:05	12/05/12 10:00
280-36589-12	SL-534-SA6-SB-3.0-4.0	Solid	12/04/12 09:15	12/05/12 10:00
280-36589-13	SL-534-SA6-SB-3.0-4.0	Solid	12/04/12 09:15	12/05/12 10:00
280-36589-14	SL-534-SA6-SB-3.5	Solid	12/04/12 09:14	12/05/12 10:00
280-36589-15	SL-626-SA6-SB-0.0-0.5	Solid	12/04/12 07:50	12/05/12 10:00
280-36589-16	SL-626-SA6-SB-0.0-0.5	Solid	12/04/12 07:50	12/05/12 10:00
280-36589-17	SL-627-SA6-SB-0.0-0.5	Solid	12/04/12 08:30	12/05/12 10:00
280-36589-18	SL-627-SA6-SB-0.0-0.5	Solid	12/04/12 08:30	12/05/12 10:00
280-36589-19	SL-627-SA6-SB-1.0-2.0	Solid	12/04/12 08:55	12/05/12 10:00
280-36589-20	SL-627-SA6-SB-1.0-2.0	Solid	12/04/12 08:55	12/05/12 10:00
280-36589-21	SL-627-SA6-SB-1.5	Solid	12/04/12 09:00	12/05/12 10:00
280-36589-22	SL-628-SA6-SB-0.0-0.5	Solid	12/04/12 11:00	12/05/12 10:00
280-36589-23	SL-628-SA6-SB-0.0-0.5	Solid	12/04/12 11:00	12/05/12 10:00
280-36589-24	SL-628-SA6-SB-4.0-5.0	Solid	12/04/12 11:20	12/05/12 10:00
280-36589-25	SL-628-SA6-SB-4.0-5.0	Solid	12/04/12 11:20	12/05/12 10:00
280-36589-26	SL-628-SA6-SB-4.5	Solid	12/04/12 11:25	12/05/12 10:00
280-36589-27	SL-631-SA6-SB-0.0-0.5	Solid	12/04/12 10:20	12/05/12 10:00
280-36589-28	SL-631-SA6-SB-0.0-0.5	Solid	12/04/12 10:20	12/05/12 10:00
280-36589-29	SL-632-SA6-SB-0.0-0.5	Solid	12/04/12 09:55	12/05/12 10:00
280-36589-30	SL-632-SA6-SB-0.0-0.5	Solid	12/04/12 09:55	12/05/12 10:00
280-36589-31	SL-629-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-32	SL-629-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-33	SL-629-SA6-SB-2.5-3.5	Solid	12/04/12 14:05	12/05/12 10:00
280-36589-34	SL-629-SA6-SB-2.5-3.5	Solid	12/04/12 14:05	12/05/12 10:00
280-36589-35	SL-629-SA6-SB-3.0	Solid	12/04/12 14:10	12/05/12 10:00
280-36589-36	SL-630-SA6-SB-0.0-0.5	Solid	12/04/12 14:25	12/05/12 10:00
280-36589-37	SL-630-SA6-SB-0.0-0.5	Solid	12/04/12 14:25	12/05/12 10:00
280-36589-38	SL-536-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-39	SL-536-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-40	SL-546-SA6-SB-0.0-0.5	Solid	12/04/12 14:10	12/05/12 10:00
280-36589-41	SL-546-SA6-SB-0.0-0.5	Solid	12/04/12 14:10	12/05/12 10:00
280-36589-42	SL-546-SA6-SB-6.5-7.5	Solid	12/04/12 14:35	12/05/12 10:00
280-36589-43	SL-546-SA6-SB-6.5-7.5	Solid	12/04/12 14:35	12/05/12 10:00
280-36589-44	SL-546-SA6-SB-7.0	Solid	12/04/12 14:34	12/05/12 10:00
280-36589-45	SL-549-SA6-SB-0.0-0.5	Solid	12/04/12 12:55	12/05/12 10:00
280-36589-46	SL-549-SA6-SB-0.0-0.5	Solid	12/04/12 12:55	12/05/12 10:00

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-2**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.35**	**J**	11	0.29	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
2-Methylnaphthalene	**0.79**	**J B**	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Acenaphthene	**0.30**	**J**	11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Anthracene	ND		11	0.81	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Benzo[a]pyrene	**0.91**	**J**	11	0.83	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Benzo[b]fluoranthene	**1.7**	**J**	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Benzo[g,h,i]perylene	**1.5**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Chrysene	**1.7**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Fluoranthene	**1.6**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Fluorene	ND		11	0.53	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Indeno[1,2,3-cd]pyrene	**1.2**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Naphthalene	**0.43**	**J**	11	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Phenanthrene	**1.4**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1
Pyrene	**1.5**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*45 - 130*	*12/07/12 17:30*	*12/12/12 18:12*	*1*
Nitrobenzene-d5	*97*		*40 - 130*	*12/07/12 17:30*	*12/12/12 18:12*	*1*
Terphenyl-d14	*76*		*45 - 130*	*12/07/12 17:30*	*12/12/12 18:12*	*1*

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-4**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		12	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
2-Methylnaphthalene	ND		12	0.36	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Acenaphthene	**0.35**	**J**	12	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Acenaphthylene	ND		12	0.20	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Anthracene	ND		12	0.83	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Benzo[a]anthracene	**1.0**	**J**	12	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Benzo[a]pyrene	**1.1**	**J**	12	0.86	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Benzo[b]fluoranthene	**1.9**	**J**	12	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Benzo[g,h,i]perylene	ND		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Benzo[k]fluoranthene	ND		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Chrysene	**1.7**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Dibenz(a,h)anthracene	ND		12	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Fluoranthene	**2.6**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Fluorene	ND		12	0.54	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Indeno[1,2,3-cd]pyrene	ND		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Naphthalene	**0.40**	**J**	12	0.38	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
N-Nitrosodimethylamine	ND		12	2.8	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Phenanthrene	**2.0**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1
Pyrene	**2.3**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 18:37	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		45 - 130	12/07/12 17:30	12/12/12 18:37	1
Nitrobenzene-d5	125		40 - 130	12/07/12 17:30	12/12/12 18:37	1
Terphenyl-d14	95		45 - 130	12/07/12 17:30	12/12/12 18:37	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-6**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.42	J	12	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
2-Methylnaphthalene	0.76	J B	12	0.36	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Acenaphthene	0.62	J	12	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Acenaphthylene	1.6	J	12	0.20	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Anthracene	5.4	J	12	0.83	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Benzo[a]anthracene	16		12	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Benzo[a]pyrene	11	J	12	0.85	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Benzo[b]fluoranthene	20		12	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Benzo[g,h,i]perylene	6.3	J	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Benzo[k]fluoranthene	6.0	J	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Chrysene	21		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Dibenz(a,h)anthracene	1.5	J	12	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Fluoranthene	22		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Fluorene	0.59	J	12	0.54	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Indeno[1,2,3-cd]pyrene	7.2	J	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Naphthalene	0.86	J	12	0.38	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
N-Nitrosodimethylamine	ND		12	2.8	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Phenanthrene	5.1	J	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1
Pyrene	24		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		45 - 130	12/07/12 17:30	12/12/12 19:01	1
Nitrobenzene-d5	113		40 - 130	12/07/12 17:30	12/12/12 19:01	1
Terphenyl-d14	87		45 - 130	12/07/12 17:30	12/12/12 19:01	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-8**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.29	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
2-Methylnaphthalene	ND		11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Acenaphthene	0.22	J	11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Acenaphthylene	0.34	J	11	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Anthracene	ND		11	0.81	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Benzo[a]pyrene	ND		11	0.84	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Benzo[b]fluoranthene	1.4	J	11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Chrysene	1.4	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Fluoranthene	1.8	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Fluorene	0.98	J	11	0.53	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Naphthalene	0.53	J	11	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-8**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Phenanthrene	**1.6**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1
Pyrene	**1.4**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*45 - 130*	*12/07/12 17:30*	*12/12/12 19:26*	*1*
Nitrobenzene-d5	*129*		*40 - 130*	*12/07/12 17:30*	*12/12/12 19:26*	*1*
Terphenyl-d14	*89*		*45 - 130*	*12/07/12 17:30*	*12/12/12 19:26*	*1*

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-10**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.40**	**J**	11	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
2-Methylnaphthalene	**0.49**	**J B**	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Acenaphthene	**0.40**	**J**	11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Anthracene	ND		11	0.82	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Benzo[a]pyrene	ND		11	0.84	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Benzo[b]fluoranthene	**1.6**	**J**	11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Benzo[g,h,i]perylene	ND		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Chrysene	**1.5**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Fluoranthene	**1.5**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Fluorene	**0.59**	**J**	11	0.54	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Indeno[1,2,3-cd]pyrene	ND		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Naphthalene	**0.65**	**J**	11	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Phenanthrene	ND		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1
Pyrene	**1.3**	**J**	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*45 - 130*	*12/07/12 17:30*	*12/12/12 19:51*	*1*
Nitrobenzene-d5	*118*		*40 - 130*	*12/07/12 17:30*	*12/12/12 19:51*	*1*
Terphenyl-d14	*86*		*45 - 130*	*12/07/12 17:30*	*12/12/12 19:51*	*1*

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-12**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.6	0.25	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
2-Methylnaphthalene	ND		9.6	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Acenaphthene	ND		9.6	0.15	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Acenaphthylene	ND		9.6	0.16	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Anthracene	ND		9.6	0.69	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Benzo[a]anthracene	ND		9.6	0.86	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Benzo[a]pyrene	ND		9.6	0.71	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Benzo[b]fluoranthene	ND		9.6	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-12**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		9.6	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Benzo[k]fluoranthene	ND		9.6	0.96	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Chrysene	ND		9.6	0.96	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Dibenz(a,h)anthracene	ND		9.6	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Fluoranthene	ND		9.6	0.96	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Fluorene	ND		9.6	0.45	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Indeno[1,2,3-cd]pyrene	ND		9.6	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Naphthalene	ND		9.6	0.31	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
N-Nitrosodimethylamine	ND		9.6	2.3	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Phenanthrene	ND		9.6	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1
Pyrene	ND		9.6	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*45 - 130*	*12/07/12 17:30*	*12/12/12 20:16*	*1*
Nitrobenzene-d5	*100*		*40 - 130*	*12/07/12 17:30*	*12/12/12 20:16*	*1*
Terphenyl-d14	*72*		*45 - 130*	*12/07/12 17:30*	*12/12/12 20:16*	*1*

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-15**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.77**	**J**	11	0.28	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
2-Methylnaphthalene	**1.1**	**J B**	11	0.34	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Acenaphthene	**0.95**	**J**	11	0.17	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Acenaphthylene	**0.78**	**J**	11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Anthracene	**0.78**	**J**	11	0.78	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Benzo[a]anthracene	ND		11	0.98	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Benzo[a]pyrene	**1.2**	**J**	11	0.80	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Benzo[b]fluoranthene	**3.3**	**J**	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Benzo[g,h,i]perylene	**2.1**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Chrysene	**3.7**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Fluoranthene	**4.5**	**J**	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Fluorene	**2.6**	**J**	11	0.51	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Indeno[1,2,3-cd]pyrene	**1.6**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Naphthalene	**2.8**	**J**	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Phenanthrene	**3.7**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1
Pyrene	**3.6**	**J**	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*45 - 130*	*12/07/12 17:30*	*12/12/12 20:41*	*1*
Nitrobenzene-d5	*137*	*X*	*40 - 130*	*12/07/12 17:30*	*12/12/12 20:41*	*1*
Terphenyl-d14	*91*		*45 - 130*	*12/07/12 17:30*	*12/12/12 20:41*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-17**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.2	J	11	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
2-Methylnaphthalene	1.7	J B	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Acenaphthene	1.0	J	11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Acenaphthylene	1.4	J	11	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Anthracene	1.6	J	11	0.82	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Benzo[a]anthracene	2.0	J	11	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Benzo[a]pyrene	2.1	J	11	0.85	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Benzo[b]fluoranthene	6.4	J	11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Benzo[g,h,i]perylene	4.2	J	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Benzo[k]fluoranthene	1.5	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Chrysene	7.3	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Fluoranthene	9.2	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Fluorene	6.8	J	11	0.54	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Indeno[1,2,3-cd]pyrene	3.2	J	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Naphthalene	5.0	J	11	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Phenanthrene	9.2	J	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1
Pyrene	7.5	J	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*45 - 130*	*12/07/12 17:30*	*12/12/12 21:06*	*1*
Nitrobenzene-d5	*154*	*X*	*40 - 130*	*12/07/12 17:30*	*12/12/12 21:06*	*1*
Terphenyl-d14	*91*		*45 - 130*	*12/07/12 17:30*	*12/12/12 21:06*	*1*

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-19**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.36	J	11	0.28	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
2-Methylnaphthalene	0.66	J B	11	0.33	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Anthracene	ND		11	0.76	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Benzo[a]anthracene	1.1	J	11	0.96	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Benzo[a]pyrene	1.6	J	11	0.79	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Benzo[b]fluoranthene	5.0	J	11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Benzo[g,h,i]perylene	3.6	J	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Chrysene	3.5	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Fluoranthene	3.1	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Indeno[1,2,3-cd]pyrene	1.9	J	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Naphthalene	1.0	J	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
N-Nitrosodimethylamine	ND		11	2.5	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Phenanthrene	2.4	J	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1
Pyrene	2.9	J	11	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 21:31	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		45 - 130	12/07/12 17:30	12/12/12 21:31	1
Nitrobenzene-d5	121		40 - 130	12/07/12 17:30	12/12/12 21:31	1
Terphenyl-d14	95		45 - 130	12/07/12 17:30	12/12/12 21:31	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-22**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.1	J	11	0.30	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
2-Methylnaphthalene	1.8	J B	11	0.35	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Anthracene	4.5	J	11	0.82	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Benzo[a]anthracene	36		11	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Benzo[a]pyrene	40		11	0.85	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Benzo[b]fluoranthene	43		11	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Benzo[g,h,i]perylene	30		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Benzo[k]fluoranthene	11		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Chrysene	77		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Dibenz(a,h)anthracene	8.4	J	11	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Fluoranthene	45		11	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Fluorene	ND		11	0.54	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Indeno[1,2,3-cd]pyrene	22		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Naphthalene	3.9	J	11	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Phenanthrene	22		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1
Pyrene	44		11	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		45 - 130	12/07/12 17:30	12/12/12 21:56	1
Nitrobenzene-d5	166	X	40 - 130	12/07/12 17:30	12/12/12 21:56	1
Terphenyl-d14	78		45 - 130	12/07/12 17:30	12/12/12 21:56	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-24**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Acenaphthene	ND		10	0.17	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Acenaphthylene	ND		10	0.18	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Benzo[a]anthracene	ND		10	0.93	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Fluorene	ND		10	0.49	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Naphthalene	ND		10	0.34	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-24**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*45 - 130*	*12/07/12 17:30*	*12/12/12 22:21*	*1*
Nitrobenzene-d5	*124*		*40 - 130*	*12/07/12 17:30*	*12/12/12 22:21*	*1*
Terphenyl-d14	*84*		*45 - 130*	*12/07/12 17:30*	*12/12/12 22:21*	*1*

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-27**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**3.4**	**J**	12	0.31	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
2-Methylnaphthalene	**4.4**	**J B**	12	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Acenaphthene	ND		12	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Acenaphthylene	ND		12	0.20	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Anthracene	**2.9**	**J**	12	0.86	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Benzo[a]anthracene	**2.0**	**J**	12	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Benzo[a]pyrene	ND		12	0.88	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Benzo[b]fluoranthene	**5.1**	**J**	12	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Benzo[g,h,i]perylene	**2.4**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Benzo[k]fluoranthene	ND		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Chrysene	**6.8**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Dibenz(a,h)anthracene	ND		12	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Fluoranthene	**8.6**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Fluorene	ND		12	0.56	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Indeno[1,2,3-cd]pyrene	**2.4**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Naphthalene	**17**		12	0.39	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
N-Nitrosodimethylamine	ND		12	2.9	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Phenanthrene	**14**		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1
Pyrene	**7.4**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*45 - 130*	*12/07/12 17:30*	*12/12/12 22:46*	*1*
Nitrobenzene-d5	*174*	*X*	*40 - 130*	*12/07/12 17:30*	*12/12/12 22:46*	*1*
Terphenyl-d14	*70*		*45 - 130*	*12/07/12 17:30*	*12/12/12 22:46*	*1*

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-29**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.6**	**J**	12	0.31	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
2-Methylnaphthalene	**2.4**	**J B**	12	0.36	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Acenaphthene	**6.6**	**J**	12	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Acenaphthylene	ND		12	0.20	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Anthracene	ND		12	0.84	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Benzo[a]anthracene	ND		12	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Benzo[a]pyrene	ND		12	0.87	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Benzo[b]fluoranthene	ND		12	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-29**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Benzo[k]fluoranthene	ND		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Chrysene	**3.3**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Dibenz(a,h)anthracene	ND		12	1.5	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Fluoranthene	**3.8**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Fluorene	ND		12	0.55	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Indeno[1,2,3-cd]pyrene	**2.1**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Naphthalene	**5.6**	**J**	12	0.38	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
N-Nitrosodimethylamine	ND		12	2.8	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Phenanthrene	**7.5**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1
Pyrene	**3.3**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*45 - 130*	*12/07/12 17:30*	*12/12/12 23:10*	*1*
Nitrobenzene-d5	*328*	*X*	*40 - 130*	*12/07/12 17:30*	*12/12/12 23:10*	*1*
Terphenyl-d14	*78*		*45 - 130*	*12/07/12 17:30*	*12/12/12 23:10*	*1*

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-31**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**3.0**	**J**	12	0.31	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
2-Methylnaphthalene	**4.8**	**J B**	12	0.37	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Acenaphthene	ND		12	0.19	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Acenaphthylene	ND		12	0.20	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Anthracene	**7.1**	**J**	12	0.86	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Benzo[a]anthracene	**7.4**	**J**	12	1.1	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Benzo[a]pyrene	**9.1**	**J**	12	0.88	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Benzo[b]fluoranthene	**19**		12	1.4	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Benzo[g,h,i]perylene	**12**		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Benzo[k]fluoranthene	**5.4**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Chrysene	**22**		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Dibenz(a,h)anthracene	**2.3**	**J**	12	1.6	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Fluoranthene	**18**		12	1.2	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Fluorene	ND		12	0.56	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Indeno[1,2,3-cd]pyrene	**10**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Naphthalene	**14**		12	0.39	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
N-Nitrosodimethylamine	ND		12	2.9	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Phenanthrene	**18**		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1
Pyrene	**18**		12	1.3	ug/Kg	☼	12/07/12 17:30	12/12/12 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*45 - 130*	*12/07/12 17:30*	*12/12/12 23:35*	*1*
Nitrobenzene-d5	*318*	*X*	*40 - 130*	*12/07/12 17:30*	*12/12/12 23:35*	*1*
Terphenyl-d14	*80*		*45 - 130*	*12/07/12 17:30*	*12/12/12 23:35*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-33**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Benzo[a]pyrene	ND		10	0.75	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Benzo[b]fluoranthene	**2.0**	**J**	10	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Benzo[g,h,i]perylene	**1.5**	**J**	10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Chrysene	**1.7**	**J**	10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Fluoranthene	**1.5**	**J**	10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Fluorene	**0.91**	**J**	10	0.48	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Indeno[1,2,3-cd]pyrene	**1.3**	**J**	10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Naphthalene	**0.38**	**J**	10	0.33	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Phenanthrene	**1.2**	**J**	10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1
Pyrene	**1.6**	**J**	10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*45 - 130*	*12/07/12 17:30*	*12/13/12 00:00*	*1*
Nitrobenzene-d5	*113*		*40 - 130*	*12/07/12 17:30*	*12/13/12 00:00*	*1*
Terphenyl-d14	*74*		*45 - 130*	*12/07/12 17:30*	*12/13/12 00:00*	*1*

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-36**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.5**	**J**	12	0.31	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
2-Methylnaphthalene	**2.4**	**J B**	12	0.37	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Acenaphthene	ND		12	0.19	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Acenaphthylene	ND		12	0.20	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Anthracene	ND		12	0.86	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Benzo[a]anthracene	**2.0**	**J**	12	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Benzo[a]pyrene	**2.2**	**J**	12	0.88	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Benzo[b]fluoranthene	**4.7**	**J**	12	1.4	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Benzo[g,h,i]perylene	**2.9**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Benzo[k]fluoranthene	ND		12	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Chrysene	**5.6**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Dibenz(a,h)anthracene	ND		12	1.5	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Fluoranthene	**5.5**	**J**	12	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Fluorene	ND		12	0.56	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Indeno[1,2,3-cd]pyrene	**2.5**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Naphthalene	**5.6**	**J**	12	0.39	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
N-Nitrosodimethylamine	ND		12	2.9	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Phenanthrene	**7.8**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1
Pyrene	**5.4**	**J**	12	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:25	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		45 - 130	12/07/12 17:30	12/13/12 00:25	1
Nitrobenzene-d5	244	X	40 - 130	12/07/12 17:30	12/13/12 00:25	1
Terphenyl-d14	77		45 - 130	12/07/12 17:30	12/13/12 00:25	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-38**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.95**	**J**	11	0.27	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
2-Methylnaphthalene	**0.84**	**J B**	11	0.32	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Anthracene	**1.5**	**J**	11	0.76	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Benzo[a]anthracene	**31**		11	0.95	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Benzo[a]pyrene	**20**		11	0.78	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Benzo[b]fluoranthene	**87**		11	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Benzo[g,h,i]perylene	**40**		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Chrysene	**130**		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Dibenz(a,h)anthracene	**18**		11	1.4	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Fluoranthene	**17**		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Fluorene	**3.3**	**J**	11	0.49	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Indeno[1,2,3-cd]pyrene	**12**		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Naphthalene	**0.83**	**J**	11	0.34	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
N-Nitrosodimethylamine	ND		11	2.5	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Phenanthrene	**24**		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1
Pyrene	**54**		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 00:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		45 - 130	12/07/12 17:30	12/13/12 00:50	1
Nitrobenzene-d5	134	X	40 - 130	12/07/12 17:30	12/13/12 00:50	1
Terphenyl-d14	81		45 - 130	12/07/12 17:30	12/13/12 00:50	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Acenaphthene	ND		10	0.17	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Acenaphthylene	ND		10	0.18	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Anthracene	ND		10	0.75	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Benzo[a]anthracene	ND		10	0.94	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Benzo[a]pyrene	ND		10	0.77	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Benzo[b]fluoranthene	ND		10	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Dibenz(a,h)anthracene	ND		10	1.4	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Fluorene	**0.59**	**J**	10	0.49	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Naphthalene	ND		10	0.34	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*45 - 130*	*12/07/12 17:30*	*12/13/12 01:15*	*1*
Nitrobenzene-d5	*118*		*40 - 130*	*12/07/12 17:30*	*12/13/12 01:15*	*1*
Terphenyl-d14	*83*		*45 - 130*	*12/07/12 17:30*	*12/13/12 01:15*	*1*

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-42**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Anthracene	ND		11	0.77	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Benzo[a]anthracene	ND		11	0.96	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Benzo[a]pyrene	ND		11	0.79	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Fluorene	**0.54**	**J**	11	0.50	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Naphthalene	ND		11	0.35	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*45 - 130*	*12/07/12 17:30*	*12/13/12 01:40*	*1*
Nitrobenzene-d5	*126*		*40 - 130*	*12/07/12 17:30*	*12/13/12 01:40*	*1*
Terphenyl-d14	*91*		*45 - 130*	*12/07/12 17:30*	*12/13/12 01:40*	*1*

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.2**	**J**	11	0.28	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
2-Methylnaphthalene	**1.1**	**J B**	11	0.33	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Acenaphthene	**0.46**	**J**	11	0.17	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Anthracene	**1.3**	**J**	11	0.77	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Benzo[a]anthracene	**26**		11	0.96	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Benzo[a]pyrene	**28**		11	0.79	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Benzo[b]fluoranthene	**88**		11	1.3	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	40		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Chrysene	95		11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Dibenz(a,h)anthracene	20		11	1.4	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Fluoranthene	9.7	J	11	1.1	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Fluorene	1.3	J	11	0.50	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Naphthalene	0.78	J	11	0.35	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Phenanthrene	20		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1
Pyrene	27		11	1.2	ug/Kg	☼	12/07/12 17:30	12/13/12 02:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*45 - 130*	*12/07/12 17:30*	*12/13/12 02:54*	*1*
Nitrobenzene-d5	*140*	*X*	*40 - 130*	*12/07/12 17:30*	*12/13/12 02:54*	*1*
Terphenyl-d14	*57*		*45 - 130*	*12/07/12 17:30*	*12/13/12 02:54*	*1*

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-2**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.2		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-4**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.4		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-6**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	17		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-8**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.14		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-10**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.16		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-12**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-15**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.7		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-17**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	3.3		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-19**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	2.4		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-22**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	58		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-24**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-27**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.95		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-29**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.21		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-31**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	15		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-33**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.34		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-36**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	3.1		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-38**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	51		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-42**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	59		0.0050	0.00074	ug/Kg			12/14/12 12:45	1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: TB-120412 — **Lab Sample ID: 280-36589-1**
Date Collected: 12/04/12 08:00 — **Matrix: Water**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*82 - 110*		*12/05/12 19:15*	*1*

Client Sample ID: SL-534-SA6-SB-3.5 — **Lab Sample ID: 280-36589-14**
Date Collected: 12/04/12 09:14 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	0.33	J	1.0	0.33	mg/Kg	☼	12/05/12 19:41	12/11/12 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*77 - 123*	*12/05/12 19:41*	*12/11/12 14:51*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: SL-627-SA6-SB-1.5 — **Lab Sample ID: 280-36589-21**
Date Collected: 12/04/12 09:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**0.47**	**J**	1.3	0.42	mg/Kg	☼	12/05/12 19:41	12/11/12 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*77 - 123*	*12/05/12 19:41*	*12/11/12 15:21*	*1*

Client Sample ID: SL-628-SA6-SB-4.5 — **Lab Sample ID: 280-36589-26**
Date Collected: 12/04/12 11:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.1	0.34	mg/Kg	☼	12/05/12 19:41	12/11/12 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*77 - 123*	*12/05/12 19:41*	*12/11/12 15:51*	*1*

Client Sample ID: SL-629-SA6-SB-3.0 — **Lab Sample ID: 280-36589-35**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**0.39**	**J**	1.1	0.35	mg/Kg	☼	12/05/12 19:41	12/11/12 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*77 - 123*	*12/05/12 19:41*	*12/11/12 16:20*	*1*

Client Sample ID: SL-546-SA6-SB-7.0 — **Lab Sample ID: 280-36589-44**
Date Collected: 12/04/12 14:34 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/05/12 19:41	12/11/12 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*77 - 123*	*12/05/12 19:41*	*12/11/12 16:50*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-2**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**13**		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1
EFH (C12-C14)	ND		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1
EFH (C15-C20)	ND		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1
EFH (C21-C30)	**3.2**	**J**	5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1
EFH (C8-C11)	ND		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1
Total Petroleum Hydrocarbons (C8-C40)	**17**		4.5	0.76	mg/Kg	☼	12/07/12 11:50	12/12/12 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*49 - 115*	*12/07/12 11:50*	*12/12/12 12:55*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-4**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	5.9	J	12	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1
EFH (C12-C14)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1
EFH (C15-C20)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1
EFH (C21-C30)	1.5	J	5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1
EFH (C8-C11)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1
Total Petroleum Hydrocarbons (C8-C40)	8.2		4.7	0.79	mg/Kg	☼	12/07/12 11:50	12/12/12 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*49 - 115*	*12/07/12 11:50*	*12/12/12 13:19*	*1*

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-6**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	29		12	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1
EFH (C12-C14)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1
EFH (C15-C20)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1
EFH (C21-C30)	11		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1
EFH (C8-C11)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1
Total Petroleum Hydrocarbons (C8-C40)	41		4.6	0.78	mg/Kg	☼	12/07/12 11:50	12/12/12 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*49 - 115*	*12/07/12 11:50*	*12/12/12 13:44*	*1*

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-8**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	11		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1
EFH (C12-C14)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1
EFH (C15-C20)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1
EFH (C21-C30)	2.3	J	5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1
EFH (C8-C11)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1
Total Petroleum Hydrocarbons (C8-C40)	14		4.6	0.77	mg/Kg	☼	12/07/12 11:50	12/12/12 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*49 - 115*	*12/07/12 11:50*	*12/12/12 14:57*	*1*

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-10**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	11	J	12	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1
EFH (C12-C14)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1
EFH (C15-C20)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1
EFH (C21-C30)	3.0	J	5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1
EFH (C8-C11)	ND		5.8	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1
Total Petroleum Hydrocarbons (C8-C40)	15		4.6	0.79	mg/Kg	☼	12/07/12 11:50	12/12/12 15:22	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		49 - 115	12/07/12 11:50	12/12/12 15:22	1

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-12**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	2.9	J	10	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1
EFH (C21-C30)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1
Total Petroleum Hydrocarbons (C8-C40)	4.3		4.1	0.70	mg/Kg	☼	12/07/12 11:50	12/12/12 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		49 - 115	12/07/12 11:50	12/12/12 15:46	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-15**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	26		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1
EFH (C15-C20)	2.1	J	5.4	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1
EFH (C21-C30)	13		5.4	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1
Total Petroleum Hydrocarbons (C8-C40)	42		4.4	0.74	mg/Kg	☼	12/07/12 11:50	12/12/12 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		49 - 115	12/07/12 11:50	12/12/12 16:11	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-17**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	31		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1
EFH (C12-C14)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1
EFH (C15-C20)	1.9	J	5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1
EFH (C21-C30)	15		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1
EFH (C8-C11)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1
Total Petroleum Hydrocarbons (C8-C40)	49		4.6	0.78	mg/Kg	☼	12/07/12 11:50	12/12/12 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		49 - 115	12/07/12 11:50	12/12/12 16:35	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-19**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	38		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1
EFH (C12-C14)	ND		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1
EFH (C15-C20)	1.5	J	5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-19**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	29		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1
EFH (C8-C11)	ND		5.6	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1
Total Petroleum Hydrocarbons (C8-C40)	69		4.5	0.76	mg/Kg	☼	12/07/12 11:50	12/12/12 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*49 - 115*	*12/07/12 11:50*	*12/12/12 17:00*	*1*

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-22**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	48		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1
EFH (C12-C14)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1
EFH (C15-C20)	1.9	J	5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1
EFH (C21-C30)	27		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1
EFH (C8-C11)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1
Total Petroleum Hydrocarbons (C8-C40)	78		4.6	0.78	mg/Kg	☼	12/07/12 11:50	12/12/12 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*49 - 115*	*12/07/12 11:50*	*12/12/12 17:49*	*1*

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-24**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	7.0	J	10	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1
EFH (C21-C30)	1.2	J	5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1
Total Petroleum Hydrocarbons (C8-C40)	8.9		4.1	0.69	mg/Kg	☼	12/07/12 11:50	12/12/12 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*49 - 115*	*12/07/12 11:50*	*12/12/12 18:38*	*1*

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-27**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	25		12	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1
EFH (C12-C14)	ND		6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1
EFH (C15-C20)	1.9	J	6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1
EFH (C21-C30)	12		6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1
EFH (C8-C11)	ND		6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1
Total Petroleum Hydrocarbons (C8-C40)	40		4.8	0.82	mg/Kg	☼	12/07/12 11:50	12/12/12 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*49 - 115*	*12/07/12 11:50*	*12/12/12 19:02*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-29**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	80		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1
EFH (C12-C14)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1
EFH (C15-C20)	4.0	J	5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1
EFH (C21-C30)	43		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1
EFH (C8-C11)	ND		5.7	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1
Total Petroleum Hydrocarbons (C8-C40)	130		4.5	0.77	mg/Kg	☼	12/07/12 11:50	12/12/12 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*49 - 115*	*12/07/12 11:50*	*12/12/12 19:27*	*1*

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-31**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	75		12	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1
EFH (C12-C14)	ND		6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1
EFH (C15-C20)	3.9	J	6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1
EFH (C21-C30)	45		6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1
EFH (C8-C11)	1.3	J	6.1	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1
Total Petroleum Hydrocarbons (C8-C40)	130		4.9	0.83	mg/Kg	☼	12/07/12 11:50	12/12/12 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*49 - 115*	*12/07/12 11:50*	*12/12/12 17:25*	*1*

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-33**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	11		10	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1
EFH (C21-C30)	3.7	J	5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1
Total Petroleum Hydrocarbons (C8-C40)	15		4.1	0.69	mg/Kg	☼	12/07/12 11:50	12/12/12 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*49 - 115*	*12/07/12 11:50*	*12/12/12 19:51*	*1*

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-36**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	40		13	1.3	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1
EFH (C12-C14)	ND		6.3	1.3	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1
EFH (C15-C20)	5.2	J	6.3	1.3	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1
EFH (C21-C30)	31		6.3	1.3	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1
EFH (C8-C11)	ND		6.3	1.2	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1
Total Petroleum Hydrocarbons (C8-C40)	78		5.0	0.85	mg/Kg	☼	12/07/12 11:50	12/12/12 20:15	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89		49 - 115	12/07/12 11:50	12/12/12 20:15	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-38**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**230**		100	10	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10
EFH (C12-C14)	ND		52	10	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10
EFH (C15-C20)	ND		52	10	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10
EFH (C21-C30)	**350**		52	10	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10
EFH (C8-C11)	ND		52	10	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10
Total Petroleum Hydrocarbons (C8-C40)	**580**		42	7.1	mg/Kg	☼	12/07/12 11:50	12/13/12 11:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84	D	49 - 115	12/07/12 11:50	12/13/12 11:04	10

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**18**		11	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1
EFH (C21-C30)	**7.4**		5.3	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1
Total Petroleum Hydrocarbons (C8-C40)	**26**		4.2	0.72	mg/Kg	☼	12/07/12 11:50	12/12/12 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		49 - 115	12/07/12 11:50	12/12/12 21:04	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-42**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1
EFH (C21-C30)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1
Total Petroleum Hydrocarbons (C8-C40)	**0.90**	**J**	4.2	0.71	mg/Kg	☼	12/07/12 11:50	12/12/12 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		49 - 115	12/07/12 11:50	12/12/12 21:28	1

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**900**		210	21	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20
EFH (C12-C14)	ND		110	21	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20
EFH (C15-C20)	ND		110	21	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	**840**		110	21	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20
EFH (C8-C11)	ND		110	21	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20
Total Petroleum Hydrocarbons (C8-C40)	**1700**		85	14	mg/Kg	☼	12/07/12 11:50	12/13/12 11:29	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*0*	*D*	*49 - 115*	*12/07/12 11:50*	*12/13/12 11:29*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.7	0.61	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
4,4'-DDE	**1.2**	**J p**	3.7	0.27	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
4,4'-DDT	**6.5**		3.7	0.66	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Aldrin	ND		1.9	0.28	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
alpha-BHC	ND		1.9	0.24	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
beta-BHC	ND		1.9	0.74	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
delta-BHC	ND		1.9	0.45	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Dieldrin	ND		3.7	0.24	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endosulfan I	ND		1.9	0.20	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endosulfan II	ND		3.7	0.32	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endosulfan sulfate	ND		3.7	0.31	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endrin	ND		3.7	0.34	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endrin aldehyde	ND		3.7	0.19	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Endrin ketone	ND		3.7	0.55	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
gamma-BHC (Lindane)	ND		1.9	0.52	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Heptachlor	ND		1.9	0.24	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Heptachlor epoxide	ND		1.9	0.48	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Methoxychlor	ND		7.5	0.50	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Mirex	ND		1.9	0.30	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Technical Chlordane	ND		19	8.7	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1
Toxaphene	ND		56	18	ug/Kg	☼	12/10/12 10:55	12/13/12 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*20 - 120*	*12/10/12 10:55*	*12/13/12 00:54*	*1*
DCB Decachlorobiphenyl	*100*		*20 - 120*	*12/10/12 10:55*	*12/13/12 00:54*	*1*
Tetrachloro-m-xylene	*84*		*50 - 130*	*12/10/12 10:55*	*12/13/12 00:54*	*1*
Tetrachloro-m-xylene	*75*		*50 - 130*	*12/10/12 10:55*	*12/13/12 00:54*	*1*

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.8	0.63	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
4,4'-DDE	**2.7**	**J p**	3.8	0.27	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
4,4'-DDT	**12**	**p**	3.8	0.68	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Aldrin	ND		2.0	0.29	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
alpha-BHC	ND		2.0	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		2.0	0.76	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
delta-BHC	ND		2.0	0.46	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Dieldrin	ND		3.8	0.24	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endosulfan I	ND		2.0	0.20	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endosulfan II	ND		3.8	0.33	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endosulfan sulfate	ND		3.8	0.32	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endrin	ND		3.8	0.35	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endrin aldehyde	ND		3.8	0.20	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Endrin ketone	ND		3.8	0.56	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
gamma-BHC (Lindane)	ND		2.0	0.53	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Heptachlor	ND		2.0	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Heptachlor epoxide	ND		2.0	0.49	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Methoxychlor	ND		7.7	0.52	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Mirex	ND		2.0	0.31	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Technical Chlordane	ND		20	8.9	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1
Toxaphene	ND		57	18	ug/Kg	☼	12/10/12 10:55	12/13/12 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*20 - 120*	*12/10/12 10:55*	*12/13/12 02:16*	*1*
DCB Decachlorobiphenyl	*125*	*X*	*20 - 120*	*12/10/12 10:55*	*12/13/12 02:16*	*1*
Tetrachloro-m-xylene	*85*		*50 - 130*	*12/10/12 10:55*	*12/13/12 02:16*	*1*
Tetrachloro-m-xylene	*77*		*50 - 130*	*12/10/12 10:55*	*12/13/12 02:16*	*1*

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.54	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
4,4'-DDE	ND		3.3	0.24	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
4,4'-DDT	**0.85**	**J p**	3.3	0.58	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Aldrin	ND		1.7	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
alpha-BHC	ND		1.7	0.21	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
beta-BHC	ND		1.7	0.66	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
delta-BHC	ND		1.7	0.40	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Dieldrin	ND		3.3	0.21	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endosulfan I	ND		1.7	0.17	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endosulfan II	ND		3.3	0.28	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endosulfan sulfate	ND		3.3	0.27	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endrin	ND		3.3	0.30	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endrin aldehyde	ND		3.3	0.17	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Endrin ketone	ND		3.3	0.48	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Heptachlor	ND		1.7	0.21	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Heptachlor epoxide	ND		1.7	0.42	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Methoxychlor	ND		6.6	0.44	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Mirex	ND		1.7	0.26	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Technical Chlordane	ND		17	7.7	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1
Toxaphene	ND		49	16	ug/Kg	☼	12/10/12 10:55	12/13/12 02:33	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		20 - 120	12/10/12 10:55	12/13/12 02:33	1
DCB Decachlorobiphenyl	85		20 - 120	12/10/12 10:55	12/13/12 02:33	1
Tetrachloro-m-xylene	84		50 - 130	12/10/12 10:55	12/13/12 02:33	1
Tetrachloro-m-xylene	84		50 - 130	12/10/12 10:55	12/13/12 02:33	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.9	0.64	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
4,4'-DDE	**2.8**	**J**	3.9	0.28	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
4,4'-DDT	**4.1**		3.9	0.70	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Aldrin	ND		2.0	0.30	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
alpha-BHC	ND		2.0	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
beta-BHC	ND		2.0	0.78	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
delta-BHC	ND		2.0	0.47	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Dieldrin	ND		3.9	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endosulfan I	ND		2.0	0.21	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endosulfan II	ND		3.9	0.34	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endosulfan sulfate	ND		3.9	0.33	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endrin	ND		3.9	0.36	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endrin aldehyde	ND		3.9	0.20	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Endrin ketone	ND		3.9	0.58	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
gamma-BHC (Lindane)	ND		2.0	0.55	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Heptachlor	ND		2.0	0.25	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Heptachlor epoxide	ND		2.0	0.50	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Methoxychlor	ND		7.9	0.53	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Mirex	ND		2.0	0.32	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Technical Chlordane	ND		20	9.2	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1
Toxaphene	ND		59	19	ug/Kg	☼	12/10/12 10:55	12/13/12 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		20 - 120	12/10/12 10:55	12/13/12 02:50	1
DCB Decachlorobiphenyl	93		20 - 120	12/10/12 10:55	12/13/12 02:50	1
Tetrachloro-m-xylene	79		50 - 130	12/10/12 10:55	12/13/12 02:50	1
Tetrachloro-m-xylene	83		50 - 130	12/10/12 10:55	12/13/12 02:50	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.0	0.66	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
4,4'-DDE	**1.2**	**J**	4.0	0.29	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
4,4'-DDT	**2.9**	**J**	4.0	0.71	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Aldrin	ND		2.0	0.30	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
alpha-BHC	ND		2.0	0.26	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
beta-BHC	ND		2.0	0.80	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
delta-BHC	ND		2.0	0.48	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Dieldrin	ND		4.0	0.25	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Endosulfan I	ND		2.0	0.21	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Endosulfan II	ND		4.0	0.35	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Endosulfan sulfate	ND		4.0	0.33	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Endrin	ND		4.0	0.37	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		4.0	0.21	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Endrin ketone	ND		4.0	0.59	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
gamma-BHC (Lindane)	ND		2.0	0.56	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Heptachlor	ND		2.0	0.26	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Methoxychlor	ND		8.1	0.54	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Mirex	ND		2.0	0.32	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Technical Chlordane	ND		20	9.4	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1
Toxaphene	ND		60	19	ug/Kg	☼	12/10/12 15:40	12/13/12 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*109*		*20 - 120*	*12/10/12 15:40*	*12/13/12 03:06*	*1*
DCB Decachlorobiphenyl	*92*		*20 - 120*	*12/10/12 15:40*	*12/13/12 03:06*	*1*
Tetrachloro-m-xylene	*80*		*50 - 130*	*12/10/12 15:40*	*12/13/12 03:06*	*1*
Tetrachloro-m-xylene	*89*		*50 - 130*	*12/10/12 15:40*	*12/13/12 03:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1242	ND		20	10	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1248	ND		20	6.5	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1254	ND		20	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1260	ND		20	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 5432	ND		58	18	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 5442	ND		58	37	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1
Aroclor 5460	ND		58	19	ug/Kg	☼	12/10/12 10:55	12/12/12 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*45 - 120*	*12/10/12 10:55*	*12/12/12 14:33*	*1*
Tetrachloro-m-xylene	*92*		*45 - 120*	*12/10/12 10:55*	*12/12/12 14:33*	*1*

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		990	300	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1221	ND		1900	910	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1232	ND		990	300	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1242	ND		990	530	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1248	ND		990	330	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1254	**2500**		990	320	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1260	ND		990	150	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1262	ND		1900	680	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 1268	ND		1900	230	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 5432	ND		2900	920	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 5442	ND		2900	1900	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50
Aroclor 5460	**5800**		2900	960	ug/Kg	☼	12/10/12 10:55	12/13/12 18:51	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*D*	*45 - 120*	*12/10/12 10:55*	*12/13/12 18:51*	*50*
Tetrachloro-m-xylene	*0*	*D*	*45 - 120*	*12/10/12 10:55*	*12/13/12 18:51*	*50*

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-7**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1248	ND		20	6.5	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1254	ND		20	6.4	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1260	**66**		20	3.1	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 1268	ND		38	4.6	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 5432	ND		58	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 5442	ND		58	37	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1
Aroclor 5460	ND		58	19	ug/Kg	☼	12/10/12 10:55	12/12/12 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:16*	*1*
Tetrachloro-m-xylene	*94*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:16*	*1*

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-9**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1242	ND		20	10	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1248	ND		20	6.4	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1254	ND		20	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1260	ND		20	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 5432	ND		57	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 5442	ND		57	37	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1
Aroclor 5460	ND		57	19	ug/Kg	☼	12/10/12 10:55	12/12/12 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*99*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:38*	*1*
Tetrachloro-m-xylene	*88*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-11**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.8	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1232	ND		19	5.8	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1248	ND		19	6.4	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1254	ND		19	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 5432	ND		57	18	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 5442	ND		57	37	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1
Aroclor 5460	ND		57	19	ug/Kg	☼	12/10/12 10:55	12/12/12 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:59*	*1*
Tetrachloro-m-xylene	*98*		*45 - 120*	*12/10/12 10:55*	*12/12/12 15:59*	*1*

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1242	ND		17	9.2	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 1268	ND		33	4.0	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/10/12 10:55	12/12/12 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*45 - 120*	*12/10/12 10:55*	*12/12/12 16:21*	*1*
Tetrachloro-m-xylene	*82*		*45 - 120*	*12/10/12 10:55*	*12/12/12 16:21*	*1*

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.7	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1221	ND		37	17	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1248	ND		19	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1254	ND		19	6.2	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		37	4.4	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 5432	ND		56	18	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 5442	ND		56	36	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1
Aroclor 5460	ND		56	18	ug/Kg	☼	12/10/12 10:55	12/12/12 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*45 - 120*	*12/10/12 10:55*	*12/12/12 16:42*	*1*
Tetrachloro-m-xylene	*96*		*45 - 120*	*12/10/12 10:55*	*12/12/12 16:42*	*1*

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-18**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.7	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1221	ND		37	18	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1232	ND		19	5.8	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1248	ND		19	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1254	ND		19	6.2	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 1268	ND		37	4.5	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 5432	ND		56	18	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 5442	ND		56	36	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1
Aroclor 5460	ND		56	19	ug/Kg	☼	12/10/12 10:55	12/12/12 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:12*	*1*
Tetrachloro-m-xylene	*96*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:12*	*1*

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1232	ND		19	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 5442	ND		55	36	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/10/12 10:55	12/12/12 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:34*	*1*
Tetrachloro-m-xylene	*94*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:34*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.8	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1242	ND		20	10	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1248	ND		20	6.4	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1254	**110**		20	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1260	**79**		20	3.0	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 5432	ND		57	18	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 5442	ND		57	37	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1
Aroclor 5460	**310**		57	19	ug/Kg	☼	12/10/12 10:55	12/12/12 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:55*	*1*
Tetrachloro-m-xylene	*94*		*45 - 120*	*12/10/12 10:55*	*12/12/12 19:55*	*1*

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1221	ND		33	15	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1242	ND		17	9.0	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1248	ND		17	5.5	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1254	ND		17	5.5	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1260	ND		17	2.6	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1262	ND		33	11	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 1268	ND		33	3.9	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 5432	ND		49	16	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 5442	ND		49	32	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1
Aroclor 5460	ND		49	16	ug/Kg	☼	12/10/12 10:55	12/12/12 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*97*		*45 - 120*	*12/10/12 10:55*	*12/12/12 20:16*	*1*
Tetrachloro-m-xylene	*91*		*45 - 120*	*12/10/12 10:55*	*12/12/12 20:16*	*1*

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	6.1	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1221	ND		40	19	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1232	ND		20	6.2	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1248	ND		20	6.8	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1254	ND		20	6.6	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1260	ND		20	3.2	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 1262	ND		40	14	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		40	4.8	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 5432	ND		60	19	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 5442	ND		60	39	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1
Aroclor 5460	ND		60	20	ug/Kg	☼	12/10/12 10:55	12/12/12 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*125*	*X*	*45 - 120*	*12/10/12 10:55*	*12/12/12 20:38*	*1*
Tetrachloro-m-xylene	*95*		*45 - 120*	*12/10/12 10:55*	*12/12/12 20:38*	*1*

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	6.0	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1221	ND		39	18	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1232	ND		20	6.0	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1248	ND		20	6.6	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1254	ND		20	6.5	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1260	ND		20	3.1	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1262	ND		39	14	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 1268	ND		39	4.7	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 5432	ND		59	19	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 5442	ND		59	38	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1
Aroclor 5460	ND		59	19	ug/Kg	☼	12/10/12 10:55	12/12/12 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*126*	*X*	*45 - 120*	*12/10/12 10:55*	*12/12/12 20:59*	*1*
Tetrachloro-m-xylene	*100*		*45 - 120*	*12/10/12 10:55*	*12/12/12 20:59*	*1*

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		21	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1221	ND		41	19	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1232	ND		21	6.3	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1242	ND		21	11	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1248	ND		21	6.9	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1254	**110**		21	6.8	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1260	**94**		21	3.3	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1262	ND		41	14	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 1268	ND		41	4.9	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 5432	ND		62	19	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 5442	ND		62	40	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1
Aroclor 5460	**75**		62	20	ug/Kg	☼	12/10/12 10:55	12/12/12 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*12/10/12 10:55*	*12/12/12 21:21*	*1*
Tetrachloro-m-xylene	*92*		*45 - 120*	*12/10/12 10:55*	*12/12/12 21:21*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-34**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1242	ND		17	9.1	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1248	ND		17	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1254	ND		17	5.5	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1260	ND		17	2.6	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 1268	ND		33	3.9	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 5432	ND		50	16	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 5442	ND		50	32	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1
Aroclor 5460	ND		50	16	ug/Kg	☼	12/10/12 10:55	12/12/12 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*91*		*45 - 120*	*12/10/12 10:55*	*12/12/12 21:42*	*1*
Tetrachloro-m-xylene	*92*		*45 - 120*	*12/10/12 10:55*	*12/12/12 21:42*	*1*

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	6.1	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1221	ND		40	19	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1232	ND		20	6.2	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1248	ND		20	6.7	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1254	ND		20	6.6	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1260	ND		20	3.2	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1262	ND		40	14	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 1268	ND		40	4.8	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 5432	ND		60	19	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 5442	ND		60	39	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1
Aroclor 5460	ND		60	20	ug/Kg	☼	12/10/12 15:40	12/12/12 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*45 - 120*	*12/10/12 15:40*	*12/12/12 22:03*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/10/12 15:40*	*12/12/12 22:03*	*1*

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1232	ND		19	5.6	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 5442	ND		55	35	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/10/12 10:55	12/12/12 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*53*		*45 - 120*	*12/10/12 10:55*	*12/12/12 22:25*	*1*
Tetrachloro-m-xylene	*95*		*45 - 120*	*12/10/12 10:55*	*12/12/12 22:25*	*1*

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1221	ND		35	17	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1242	ND		18	9.8	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1254	ND		18	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/10/12 10:55	12/12/12 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*45 - 120*	*12/10/12 10:55*	*12/12/12 22:46*	*1*
Tetrachloro-m-xylene	*90*		*45 - 120*	*12/10/12 10:55*	*12/12/12 22:46*	*1*

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.4	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1221	ND		35	17	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1232	ND		18	5.4	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1242	ND		18	9.7	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1254	ND		18	5.9	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 5432	ND		53	17	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 5442	ND		53	34	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1
Aroclor 5460	ND		53	18	ug/Kg	☼	12/10/12 10:55	12/12/12 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*12/10/12 10:55*	*12/12/12 23:08*	*1*
Tetrachloro-m-xylene	*100*		*45 - 120*	*12/10/12 10:55*	*12/12/12 23:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-46**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1242	ND		18	9.4	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1248	ND		18	5.8	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1254	ND		18	5.7	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1260	ND		18	2.7	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 5442	ND		52	33	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/10/12 10:55	12/12/12 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*12/10/12 10:55*	*12/12/12 23:29*	*1*
Tetrachloro-m-xylene	*96*		*45 - 120*	*12/10/12 10:55*	*12/12/12 23:29*	*1*

Method: 8151A - Herbicides (GC)

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110	13	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
2,4-D	ND		220	77	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
2,4-DB	ND		440	41	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
Dalapon	ND		550	7.7	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
Dicamba	ND		220	7.7	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
Dichlorprop	ND		220	18	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
Dinoseb	ND		220	7.7	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
MCPA	ND		36000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
MCPP	ND		36000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5
Silvex (2,4,5-TP)	ND		110	7.7	ug/Kg	☼	12/06/12 20:50	12/10/12 20:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*92*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 20:02*	*5*
2,4-Dichlorophenylacetic acid	*52*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 20:02*	*5*

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110	13	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
2,4-D	ND		220	79	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
2,4-DB	ND		450	42	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
Dalapon	ND		560	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
Dicamba	ND		220	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
Dichlorprop	ND		220	18	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
Dinoseb	ND		220	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
MCPA	ND		37000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPP	ND		37000	11000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5
Silvex (2,4,5-TP)	ND		110	7.9	ug/Kg	☼	12/06/12 20:50	12/10/12 20:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*96*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 20:25*	*5*
2,4-Dichlorophenylacetic acid	*50*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 20:25*	*5*

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	2.4	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
2,4-D	ND		41	14	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
2,4-DB	ND		82	7.6	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
Dalapon	ND		100	1.4	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
Dicamba	ND		41	1.4	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
Dichlorprop	ND		41	3.3	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
Dinoseb	ND		41	1.4	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
MCPA	ND		6600	2000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
MCPP	ND		6600	2000	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg	☼	12/06/12 20:50	12/10/12 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*54*		*50 - 150*	*12/06/12 20:50*	*12/10/12 20:47*	*1*
2,4-Dichlorophenylacetic acid	*52*		*50 - 150*	*12/06/12 20:50*	*12/10/12 20:47*	*1*

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		120	14	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
2,4-D	ND		240	83	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
2,4-DB	ND		470	44	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
Dalapon	ND		590	8.3	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
Dicamba	ND		240	8.3	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
Dichlorprop	ND		240	19	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
Dinoseb	ND		240	8.3	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
MCPA	ND		38000	12000	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
MCPP	ND		38000	12000	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5
Silvex (2,4,5-TP)	ND		120	8.3	ug/Kg	☼	12/06/12 20:50	12/10/12 21:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*63*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 21:10*	*5*
2,4-Dichlorophenylacetic acid	*46*	*D*	*50 - 150*	*12/06/12 20:50*	*12/10/12 21:10*	*5*

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		24	2.8	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
2,4-D	ND		48	17	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-DB	**10**	**J p**	96	9.0	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
Dalapon	ND		120	1.7	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
Dicamba	ND		48	1.7	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
Dichlorprop	ND		48	3.9	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
Dinoseb	ND		48	1.7	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
MCPA	**2600**	**J**	7800	2400	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
MCPP	ND		7800	2400	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1
Silvex (2,4,5-TP)	ND		24	1.7	ug/Kg	☼	12/06/12 20:50	12/10/12 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*66*		*50 - 150*	*12/06/12 20:50*	*12/10/12 21:32*	*1*
2,4-Dichlorophenylacetic acid	*62*		*50 - 150*	*12/06/12 20:50*	*12/10/12 21:32*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		4.3	0.16	mg/Kg	☼	12/13/12 17:06	12/14/12 03:21	10

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-42**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		4.3	0.16	mg/Kg	☼	12/13/12 17:06	12/14/12 03:33	10

Method: 8315A - Carbonyl Compounds by HPLC

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1800	740	ug/Kg	☼	12/10/12 13:09	12/12/12 18:07	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1800	740	ug/Kg	☼	12/10/12 13:09	12/12/12 19:24	1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13000**	**J**	22000	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Boron	**1.5**	**J**	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Calcium	**2300**		55	16	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Iron	**17000**		37	4.2	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	24	J	41	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Magnesium	3600		11	4.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Manganese	230	J	540	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Phosphorus	290		11	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Potassium	2900	J	7000	45	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Sodium	130	J	550	65	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Strontium	14		0.54	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Tin	3.3	J	12	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Titanium	840		1.1	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1
Zirconium	1.4	J	9.5	0.39	mg/Kg	☼	12/10/12 13:00	12/11/12 17:42	1

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10000	J	23000	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Boron	ND		11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Calcium	2300		58	16	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Iron	17000		40	4.4	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Lithium	25	J	43	0.35	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Magnesium	4000		12	4.3	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Manganese	240	J	580	0.12	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Phosphorus	330		12	1.9	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Potassium	2800	J	7500	48	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Sodium	79	J	580	69	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Strontium	9.6		0.58	0.042	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Tin	3.3	J	13	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Titanium	820		1.2	0.16	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1
Zirconium	1.1	J	10	0.41	mg/Kg	☼	12/10/12 13:00	12/11/12 17:45	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-7**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	23000	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Boron	2.1	J	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Calcium	4900		57	16	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Iron	18000		39	4.4	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Lithium	19	J	42	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Magnesium	4000		11	4.2	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Manganese	270	J	570	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Phosphorus	430		11	1.9	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Potassium	2800	J	7300	47	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Sodium	130	J	570	68	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Strontium	19		0.57	0.041	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Tin	3.6	J	12	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Titanium	880		1.1	0.16	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1
Zirconium	1.2	J	9.9	0.41	mg/Kg	☼	12/10/12 13:00	12/11/12 17:47	1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-9**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	21000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Boron	1.6	J	10	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Calcium	2400		52	15	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Iron	18000		36	4.0	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Lithium	27	J	39	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Magnesium	3600		10	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Manganese	320	J	520	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Phosphorus	460		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Potassium	3600	J	6700	43	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Sodium	76	J	520	62	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Strontium	18		0.52	0.038	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Tin	3.2	J	11	0.95	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Titanium	810		1.0	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1
Zirconium	1.4	J	9.0	0.37	mg/Kg	☼	12/10/12 13:00	12/11/12 17:49	1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-11**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	22000	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Boron	1.8	J	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Calcium	2400		54	15	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Iron	18000		37	4.1	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Lithium	25	J	40	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Magnesium	3500		11	4.0	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Manganese	300	J	540	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Phosphorus	330		11	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Potassium	3300	J	7000	45	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Sodium	100	J	540	64	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Strontium	20		0.54	0.039	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Tin	3.6	J	12	0.99	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Titanium	900		1.1	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1
Zirconium	1.5	J	9.4	0.39	mg/Kg	☼	12/10/12 13:00	12/11/12 17:52	1

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	19000		19000	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Boron	1.1	J	9.1	0.92	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Calcium	1300		47	13	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Iron	17000		32	3.6	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Lithium	26	J	35	0.28	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Magnesium	3500		9.4	3.5	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Manganese	150	J	460	0.094	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Phosphorus	220		9.4	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Potassium	2000	J	6000	38	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Sodium	200	J	470	55	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Strontium	15		0.46	0.034	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Tin	3.5	J	10	0.86	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	850		0.93	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1
Zirconium	1.4	J	8.1	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 17:54	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000	J	20000	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Boron	1.3	J	9.5	0.96	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Calcium	3100		49	14	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Iron	19000		33	3.7	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Lithium	25	J	36	0.29	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Magnesium	5100		9.8	3.6	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Manganese	320	J	480	0.098	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Phosphorus	470		9.8	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Potassium	3300	J	6200	40	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Sodium	91	J	490	58	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Strontium	17		0.48	0.035	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Tin	3.4	J	11	0.89	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Titanium	870		0.97	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1
Zirconium	1.2	J	8.4	0.35	mg/Kg	☼	12/10/12 13:00	12/11/12 17:56	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-18**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9800	J	22000	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Boron	1.3	J	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Calcium	2100		54	15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Iron	16000		37	4.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Lithium	20	J	40	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Magnesium	3700		11	4.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Manganese	240	J	540	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Phosphorus	340		11	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Potassium	2700	J	7000	45	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Sodium	82	J	540	64	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Strontium	12		0.54	0.039	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Tin	3.0	J	12	0.99	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Titanium	770		1.1	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1
Zirconium	1.2	J	9.4	0.39	mg/Kg	☼	12/10/12 13:00	12/11/12 18:08	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9900	J	19000	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Boron	0.96	J	9.3	0.94	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Calcium	2000		48	13	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Iron	18000		33	3.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Lithium	20	J	35	0.29	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	3700		9.6	3.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Manganese	410	J	470	0.096	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Phosphorus	340		9.6	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Potassium	2600	J	6100	39	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Sodium	80	J	480	56	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Strontium	12		0.47	0.034	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Tin	2.8	J	10	0.87	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Titanium	700		0.95	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1
Zirconium	1.1	J	8.2	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 18:10	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10000	J	20000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Boron	1.7	J	9.8	0.99	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Calcium	2200		51	14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Iron	16000		34	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Lithium	19	J	38	0.30	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Magnesium	3600		10	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Manganese	230	J	500	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Phosphorus	310		10	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Potassium	2700	J	6500	42	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Sodium	86	J	510	60	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Strontium	14		0.50	0.036	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Tin	2.9	J	11	0.92	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Titanium	760		1.0	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1
Zirconium	1.2	J	8.7	0.36	mg/Kg	☼	12/10/12 13:00	12/11/12 18:12	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000	J	20000	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Boron	1.3	J	9.6	0.97	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Calcium	2800		49	14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Iron	20000		34	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Lithium	31	J	37	0.30	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Magnesium	6900		9.9	3.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Manganese	220	J	490	0.099	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Phosphorus	420		9.9	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Potassium	1900	J	6300	41	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Sodium	150	J	490	58	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Strontium	16		0.49	0.036	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Tin	3.5	J	11	0.90	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Titanium	930		0.98	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1
Zirconium	0.81	J	8.5	0.35	mg/Kg	☼	12/10/12 13:00	12/11/12 18:15	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	20000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Boron	3.7	J	9.9	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Calcium	4900		51	14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Iron	19000		35	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Lithium	24	J	38	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Magnesium	5500		10	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Manganese	400	J	510	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Phosphorus	540		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Potassium	4100	J	6600	42	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Sodium	87	J	510	60	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Strontium	24		0.51	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Tin	3.7	J	11	0.93	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Titanium	1000		1.0	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1
Zirconium	1.4	J	8.8	0.36	mg/Kg	☼	12/10/12 13:00	12/11/12 18:17	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	21000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Boron	1.6	J	10	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Calcium	1600		52	15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Iron	19000		35	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Lithium	23	J	38	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Magnesium	4900		10	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Manganese	240	J	510	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Phosphorus	450		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Potassium	3600	J	6600	42	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Sodium	62	J	520	61	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Strontium	9.3		0.51	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Tin	3.5	J	11	0.94	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Titanium	920		1.0	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1
Zirconium	1.2	J	8.9	0.37	mg/Kg	☼	12/10/12 13:00	12/11/12 18:19	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	22000	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Boron	3.8	J	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Calcium	4100		56	16	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Iron	19000		38	4.3	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Lithium	23	J	41	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Magnesium	4700		11	4.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Manganese	290	J	550	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Phosphorus	450		11	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Potassium	3500	J	7200	46	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Sodium	120	J	560	66	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Strontium	26		0.55	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Tin	3.9	J	12	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	960		1.1	0.16	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1
Zirconium	1.4	J	9.6	0.40	mg/Kg	☼	12/10/12 13:00	12/11/12 18:22	1

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-34**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	20000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Boron	1.4	J	9.9	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Calcium	2500		51	14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Iron	21000		35	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Lithium	32	J	38	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Magnesium	5300		10	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Manganese	230	J	510	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Phosphorus	310		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Potassium	3100	J	6600	42	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Sodium	130	J	510	60	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Strontium	16		0.51	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Tin	3.7	J	11	0.93	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Titanium	990		1.0	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1
Zirconium	1.5	J	8.8	0.36	mg/Kg	☼	12/10/12 13:00	12/11/12 18:24	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	22000	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Boron	3.6	J	11	1.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Calcium	3500		55	16	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Iron	19000		37	4.2	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Lithium	24	J	41	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Magnesium	5200		11	4.1	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Manganese	320	J	540	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Phosphorus	430		11	1.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Potassium	3800	J	7000	45	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Sodium	75	J	550	65	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Strontium	17		0.54	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Tin	3.6	J	12	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Titanium	960		1.1	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1
Zirconium	1.5	J	9.5	0.39	mg/Kg	☼	12/10/12 13:00	12/11/12 18:27	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000	J	20000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Boron	ND		9.9	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Calcium	1700		51	14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Iron	22000		35	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Lithium	16	J	38	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	3300		10	3.8	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Manganese	170	J	500	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Phosphorus	420		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Potassium	2300	J	6500	42	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Sodium	170	J	510	60	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Strontium	17		0.50	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Tin	4.1	J	11	0.93	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Titanium	940		1.0	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1
Zirconium	0.86	J	8.8	0.36	mg/Kg	☼	12/10/12 13:00	12/11/12 18:38	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9400	J	18000	1.4	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Boron	ND		8.8	0.89	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Calcium	2900		45	13	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Iron	16000		31	3.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Lithium	22	J	34	0.27	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Magnesium	3900		9.1	3.4	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Manganese	210	J	450	0.091	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Phosphorus	310		9.1	1.5	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Potassium	2600	J	5800	37	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Sodium	100	J	450	54	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Strontium	17		0.45	0.033	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Tin	3.4	J	9.9	0.83	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Titanium	880		0.90	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1
Zirconium	0.74	J	7.8	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 18:40	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000	J	21000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Boron	ND		10	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Calcium	870		53	15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Iron	19000		36	4.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Lithium	9.7	J	39	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Magnesium	2200		11	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Manganese	110	J	520	0.11	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Phosphorus	150		11	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Potassium	2400	J	6700	43	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Sodium	150	J	530	62	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Strontium	10		0.52	0.038	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Tin	3.6	J	11	0.96	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Titanium	810		1.0	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1
Zirconium	0.91	J	9.1	0.37	mg/Kg	☼	12/10/12 13:00	12/11/12 18:43	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-46**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9700	J	21000	1.6	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Boron	ND		10	1.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Calcium	2400		52	15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Iron	17000		36	4.0	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Lithium	24	J	39	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Magnesium	3900		10	3.9	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Manganese	240	J	520	0.10	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Phosphorus	320		10	1.7	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Potassium	2700	J	6700	43	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Sodium	100	J	520	62	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Strontium	11		0.52	0.038	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Tin	3.5	J	11	0.96	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Titanium	920		1.0	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1
Zirconium	0.86	J	9.0	0.37	mg/Kg	☼	12/10/12 13:00	12/11/12 18:45	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.023	J	8.7	0.014	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Arsenic	5.7	J	15	0.051	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Barium	94	J	140	0.071	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Beryllium	0.71	J	1.1	0.023	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Cadmium	0.26	J	1.0	0.0094	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Chromium	17	J	37	0.076	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Cobalt	6.3	J	21	0.0067	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Copper	10	J	29	0.071	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Lead	11	J	34	0.018	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Molybdenum	0.42	J	5.3	0.018	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Nickel	12	J	29	0.025	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Selenium	0.90		0.66	0.13	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Silver	0.050	J	0.79	0.020	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Thallium	0.36	J	0.46	0.0035	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Vanadium	33	J	62	0.039	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1
Zinc	68	J	110	0.32	mg/Kg	☼	12/10/12 13:00	12/10/12 23:59	1

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	J	8.6	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Arsenic	4.3	J	15	0.050	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Barium	68	J	140	0.069	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Beryllium	0.45	J	1.1	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Cadmium	0.16	J	0.98	0.0092	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Chromium	15	J	36	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Cobalt	5.0	J	21	0.0065	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Copper	6.0	J	29	0.070	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.7	J	33	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Molybdenum	0.35	J	5.2	0.017	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Nickel	8.8	J	29	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Selenium	0.58	J	0.64	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Silver	0.028	J	0.78	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Thallium	0.26	J	0.45	0.0035	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Vanadium	29	J	61	0.038	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1
Zinc	53	J	110	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 00:02	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-7**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026	J	9.2	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Arsenic	4.4	J	16	0.053	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Barium	120	J	150	0.074	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Beryllium	0.43	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Cadmium	0.54	J	1.1	0.0099	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Chromium	19	J	39	0.080	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Cobalt	6.6	J	22	0.0070	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Copper	15	J	31	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Lead	17	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Molybdenum	0.48	J	5.6	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Nickel	10	J	31	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Selenium	0.61	J	0.69	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Silver	0.046	J	0.83	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Thallium	0.22	J	0.48	0.0037	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Vanadium	41	J	65	0.041	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1
Zinc	89	J	120	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 00:05	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-9**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.025	J	9.4	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Arsenic	5.0	J	16	0.055	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Barium	96	J	150	0.076	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Beryllium	0.59	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Cadmium	0.31	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Chromium	17	J	40	0.082	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Cobalt	5.6	J	23	0.0072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Copper	9.0	J	31	0.077	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Lead	12	J	37	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Molybdenum	0.45	J	5.7	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Nickel	12	J	31	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Selenium	0.81		0.71	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Silver	0.062	J	0.86	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Thallium	0.30	J	0.50	0.0038	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Vanadium	28	J	67	0.042	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1
Zinc	65	J	120	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 00:08	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-11**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.022	J	9.3	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Arsenic	3.3	J	16	0.054	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Barium	100	J	150	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Beryllium	0.68	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Cadmium	0.44	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Chromium	15	J	39	0.081	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Cobalt	5.1	J	22	0.0071	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Copper	8.3	J	31	0.076	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Lead	13	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Molybdenum	0.52	J	5.7	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Nickel	11	J	31	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Selenium	0.71		0.70	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Silver	0.082	J	0.84	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Thallium	0.30	J	0.49	0.0037	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Vanadium	28	J	66	0.041	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1
Zinc	77	J	120	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 00:11	1

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.0	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Arsenic	3.7	J	15	0.052	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Barium	72	J	140	0.073	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Beryllium	0.71	J	1.1	0.023	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Cadmium	0.13	J	1.0	0.0097	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Chromium	15	J	38	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Cobalt	4.4	J	22	0.0068	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Copper	5.6	J	30	0.073	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Lead	6.1	J	35	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Molybdenum	0.51	J	5.5	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Nickel	9.6	J	30	0.026	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Selenium	1.1		0.67	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Silver	0.062	J	0.81	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Thallium	0.27	J	0.47	0.0036	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Vanadium	29	J	64	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1
Zinc	54	J	110	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 00:14	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026	J	9.6	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Arsenic	4.4	J	16	0.056	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Barium	83	J	150	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Beryllium	0.46	J	1.2	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Cadmium	0.29	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Chromium	22	J	40	0.084	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Cobalt	6.1	J	23	0.0073	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Copper	11	J	32	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.9	J	37	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Molybdenum	0.30	J	5.8	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Nickel	15	J	32	0.028	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Selenium	0.53	J	0.72	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Silver	0.17	J	0.87	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Thallium	0.23	J	0.51	0.0039	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Vanadium	37	J	68	0.042	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1
Zinc	100	J	120	0.35	mg/Kg	☼	12/10/12 13:00	12/11/12 00:16	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-18**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.021	J	8.8	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Arsenic	3.2	J	15	0.051	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Barium	68	J	140	0.071	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Beryllium	0.38	J	1.1	0.023	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Cadmium	0.26	J	1.0	0.0095	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Chromium	14	J	37	0.077	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Cobalt	4.8	J	21	0.0067	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Copper	7.3	J	29	0.072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Lead	12	J	34	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Molybdenum	0.28	J	5.4	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Nickel	9.5	J	29	0.026	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Selenium	0.52	J	0.66	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Silver	0.13	J	0.80	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Thallium	0.19	J	0.47	0.0036	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Vanadium	24	J	63	0.039	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1
Zinc	63	J	110	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 00:19	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.028	J	9.1	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Arsenic	3.9	J	16	0.053	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Barium	69	J	150	0.074	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Beryllium	0.44	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Cadmium	0.29	J	1.0	0.0098	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Chromium	17	J	38	0.079	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Cobalt	5.0	J	22	0.0069	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Copper	11	J	30	0.074	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Lead	15	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Molybdenum	0.38	J	5.5	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Nickel	12	J	30	0.026	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Selenium	0.54	J	0.69	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Silver	0.17	J	0.83	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Thallium	0.19	J	0.48	0.0037	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Vanadium	27	J	65	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1
Zinc	73	J	120	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 00:31	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.037	J	9.5	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Arsenic	3.7	J	16	0.055	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Barium	76	J	150	0.077	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Beryllium	0.47	J	1.2	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Cadmium	0.49	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Chromium	16	J	40	0.083	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Cobalt	5.3	J	23	0.0072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Copper	11	J	32	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Lead	26	J	37	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Molybdenum	0.39	J	5.8	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Nickel	13	J	32	0.028	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Selenium	0.60	J	0.71	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Silver	0.43	J	0.86	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Thallium	0.20	J	0.50	0.0038	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Vanadium	28	J	68	0.042	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1
Zinc	90	J	120	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 00:34	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	J	8.7	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Arsenic	5.2	J	15	0.050	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Barium	82	J	140	0.070	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Beryllium	0.48	J	1.1	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Cadmium	0.15	J	1.0	0.0094	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Chromium	21	J	37	0.076	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Cobalt	6.4	J	21	0.0066	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Copper	10	J	29	0.071	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Lead	5.7	J	34	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Molybdenum	0.27	J	5.3	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Nickel	15	J	29	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Selenium	0.64	J	0.65	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Silver	0.11	J	0.79	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Thallium	0.22	J	0.46	0.0035	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Vanadium	38	J	62	0.038	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1
Zinc	59	J	110	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 00:37	1

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.033	J	9.3	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Arsenic	4.6	J	16	0.054	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Barium	88	J	150	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Beryllium	0.50	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Cadmium	0.30	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Chromium	19	J	39	0.081	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Cobalt	5.9	J	22	0.0071	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Copper	9.8	J	31	0.076	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Molybdenum	0.39	J	5.7	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Nickel	14	J	31	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Selenium	0.67	J	0.70	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Silver	0.11	J	0.85	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Thallium	0.25	J	0.49	0.0038	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Vanadium	34	J	66	0.041	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1
Zinc	72	J	120	0.34	mg/Kg	☼	12/10/12 13:00	12/11/12 00:40	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026	J	9.2	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Arsenic	4.8	J	16	0.053	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Barium	69	J	150	0.074	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Beryllium	0.46	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Cadmium	0.21	J	1.1	0.0099	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Chromium	19	J	39	0.080	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Cobalt	5.7	J	22	0.0070	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Copper	9.1	J	31	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Lead	12	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Molybdenum	0.34	J	5.6	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Nickel	13	J	31	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Selenium	0.61	J	0.69	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Silver	0.084	J	0.83	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Thallium	0.25	J	0.48	0.0037	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Vanadium	36	J	65	0.041	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1
Zinc	61	J	120	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 00:43	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.039	J	9.6	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Arsenic	4.6	J	16	0.056	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Barium	94	J	150	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Beryllium	0.52	J	1.2	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Cadmium	0.67	J	1.1	0.010	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Chromium	21	J	40	0.084	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Cobalt	6.2	J	23	0.0073	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Copper	14	J	32	0.078	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Lead	43		37	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Molybdenum	0.56	J	5.8	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Nickel	15	J	32	0.028	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Selenium	0.65	J	0.72	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Silver	0.59	J	0.87	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Thallium	0.26	J	0.51	0.0039	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Vanadium	36	J	68	0.042	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1
Zinc	120		120	0.35	mg/Kg	☼	12/10/12 13:00	12/11/12 00:46	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-34**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.019	J	8.3	0.013	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Arsenic	6.4	J	14	0.048	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Barium	89	J	130	0.067	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Beryllium	0.65	J	1.0	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Cadmium	0.24	J	0.95	0.0089	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Chromium	26	J	35	0.072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Cobalt	6.7	J	20	0.0063	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Copper	11	J	28	0.068	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Lead	8.1	J	32	0.017	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Molybdenum	0.38	J	5.0	0.017	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Nickel	17	J	28	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Selenium	0.79		0.62	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Silver	0.15	J	0.75	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Thallium	0.29	J	0.44	0.0033	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Vanadium	45	J	59	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1
Zinc	65	J	100	0.30	mg/Kg	☼	12/10/12 13:00	12/11/12 00:48	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.041	J	10	0.016	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Arsenic	6.3	J	17	0.059	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Barium	110	J	160	0.082	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Beryllium	0.71	J	1.3	0.026	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Cadmium	0.34	J	1.2	0.011	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Chromium	26	J	43	0.088	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Cobalt	7.9	J	24	0.0077	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Copper	13	J	34	0.083	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Lead	17	J	40	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Molybdenum	0.57	J	6.2	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Nickel	17	J	34	0.029	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Selenium	0.74	J	0.76	0.15	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Silver	0.12	J	0.92	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Thallium	0.31	J	0.53	0.0041	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Vanadium	47	J	72	0.045	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1
Zinc	81	J	130	0.37	mg/Kg	☼	12/10/12 13:00	12/11/12 00:51	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	J	8.9	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Arsenic	8.4	J	15	0.052	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Barium	100	J	140	0.072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Beryllium	0.71	J	1.1	0.023	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Cadmium	0.12	J	1.0	0.0096	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Chromium	17	J	37	0.077	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Cobalt	5.4	J	21	0.0068	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Copper	12	J	30	0.072	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.3	J	35	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Molybdenum	1.1	J	5.4	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Nickel	8.3	J	30	0.026	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Selenium	1.2		0.67	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Silver	0.045	J	0.80	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Thallium	0.52		0.47	0.0036	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Vanadium	41	J	63	0.039	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1
Zinc	70	J	110	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 00:54	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.015	J	8.4	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Arsenic	2.3	J	14	0.049	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Barium	77	J	140	0.068	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Beryllium	0.36	J	1.1	0.022	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Cadmium	0.12	J	0.97	0.0091	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Chromium	13	J	36	0.073	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Cobalt	4.5	J	20	0.0064	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Copper	5.9	J	28	0.069	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Lead	3.2	J	33	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Molybdenum	0.21	J	5.1	0.017	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Nickel	8.5	J	28	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Selenium	0.59	J	0.63	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Silver	0.020	J	0.76	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Thallium	0.22	J	0.44	0.0034	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Vanadium	27	J	60	0.037	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1
Zinc	53	J	110	0.31	mg/Kg	☼	12/10/12 13:00	12/11/12 01:06	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Arsenic	4.7	J	15	0.051	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Barium	34	J	140	0.071	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Beryllium	0.49	J	1.1	0.023	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Cadmium	0.069	J	1.0	0.0094	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Chromium	7.4	J	37	0.076	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Cobalt	2.0	J	21	0.0067	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Copper	3.5	J	29	0.071	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Lead	5.7	J	34	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Molybdenum	0.42	J	5.3	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Nickel	3.2	J	29	0.025	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Selenium	0.78		0.66	0.13	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Silver	ND		0.79	0.020	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Thallium	0.48		0.46	0.0035	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Vanadium	26	J	62	0.039	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1
Zinc	54	J	110	0.32	mg/Kg	☼	12/10/12 13:00	12/11/12 01:09	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-46**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	J	9.1	0.015	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Arsenic	3.1	J	16	0.053	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Barium	76	J	150	0.074	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Beryllium	0.40	J	1.2	0.024	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Cadmium	0.13	J	1.0	0.0098	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Chromium	14	J	39	0.080	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Cobalt	5.2	J	22	0.0069	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Copper	7.2	J	30	0.075	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Lead	3.8	J	36	0.019	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Molybdenum	0.22	J	5.6	0.018	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Nickel	8.3	J	30	0.027	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Selenium	0.61	J	0.69	0.14	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Silver	ND		0.83	0.021	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Thallium	0.27	J	0.48	0.0037	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Vanadium	29	J	65	0.040	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1
Zinc	61	J	120	0.33	mg/Kg	☼	12/10/12 13:00	12/11/12 01:12	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.024	0.0067	mg/Kg	☼	12/07/12 12:10	12/07/12 17:26	1

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.026	0.0071	mg/Kg	☼	12/07/12 12:10	12/07/12 17:29	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-7**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.024	0.0066	mg/Kg	☼	12/07/12 12:10	12/07/12 17:31	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-9**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.056		0.027	0.0073	mg/Kg	☼	12/07/12 12:10	12/07/12 17:33	1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-11**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.025	0.0070	mg/Kg	☼	12/07/12 12:10	12/07/12 17:36	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.023	0.0063	mg/Kg	☼	12/07/12 12:10	12/07/12 17:38	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.024	0.0065	mg/Kg	☼	12/07/12 12:10	12/07/12 17:45	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-18**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.024	0.0067	mg/Kg	☼	12/07/12 12:10	12/07/12 17:47	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.026	0.0073	mg/Kg	☼	12/07/12 12:10	12/07/12 17:50	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.025	0.0070	mg/Kg	☼	12/07/12 12:10	12/07/12 17:52	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.024	0.0066	mg/Kg	☼	12/07/12 12:10	12/07/12 17:54	1

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	J	0.028	0.0078	mg/Kg	☼	12/07/12 12:10	12/07/12 17:56	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	J	0.027	0.0074	mg/Kg	☼	12/07/12 12:10	12/07/12 17:59	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.026	0.0071	mg/Kg	☼	12/07/12 12:10	12/07/12 18:01	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-34**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.024	0.0066	mg/Kg	☼	12/07/12 12:10	12/07/12 18:03	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 79.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	J	0.028	0.0077	mg/Kg	☼	12/07/12 12:10	12/07/12 18:06	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0091	J	0.026	0.0072	mg/Kg	☼	12/07/12 12:10	12/07/12 18:13	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0065	mg/Kg	☼	12/07/12 12:10	12/07/12 18:15	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.026	0.0071	mg/Kg	☼	12/07/12 12:10	12/07/12 18:17	1

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-46**
Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.025	0.0069	mg/Kg	☼	12/07/12 12:10	12/07/12 18:20	1

General Chemistry

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-2**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-3**
Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.89		0.100	0.100	SU			12/13/12 19:54	1
Temperature	17.2		1.00	1.00	Degrees C			12/13/12 19:54	1
Percent Moisture	14		0.10	0.10	%			12/07/12 14:41	1

General Chemistry

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-4**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-5**
Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.58		0.100	0.100	SU			12/13/12 19:56	1
Temperature	17.3		1.00	1.00	Degrees C			12/13/12 19:56	1
Percent Moisture	15		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-6**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-7**
Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.23		0.100	0.100	SU			12/13/12 19:57	1
Temperature	16.5		1.00	1.00	Degrees C			12/13/12 19:57	1
Percent Moisture	15		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-8**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-9**
Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.17		0.100	0.100	SU			12/13/12 15:09	1
Temperature	17.8		1.00	1.00	Degrees C			12/13/12 15:09	1
Percent Moisture	13		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-10**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-11**
Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.68		0.100	0.100	SU			12/13/12 20:00	1
Temperature	17.3		1.00	1.00	Degrees C			12/13/12 20:00	1
Percent Moisture	14		0.10	0.10	%			12/07/12 14:41	1

General Chemistry

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-12**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.8		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36589-13**
Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.69		0.100	0.100	SU			12/13/12 20:01	1
Temperature	16.8		1.00	1.00	Degrees C			12/13/12 20:01	1
Percent Moisture	4.8		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-534-SA6-SB-3.5 — **Lab Sample ID: 280-36589-14**
Date Collected: 12/04/12 09:14 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.8		0.10	0.10	%			12/10/12 12:01	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-15**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-16**
Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.35		0.100	0.100	SU			12/13/12 20:02	1
Temperature	17.3		1.00	1.00	Degrees C			12/13/12 20:02	1
Percent Moisture	11		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-17**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-18**
Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.98		0.100	0.100	SU			12/13/12 20:03	1
Temperature	16.5		1.00	1.00	Degrees C			12/13/12 20:03	1
Percent Moisture	14		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-19**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/10/12 11:53	1

General Chemistry

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — **Lab Sample ID: 280-36589-20**
Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.04		0.100	0.100	SU			12/13/12 20:04	1
Temperature	17.5		1.00	1.00	Degrees C			12/13/12 20:04	1
Percent Moisture	11		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-627-SA6-SB-1.5 — **Lab Sample ID: 280-36589-21**
Date Collected: 12/04/12 09:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/10/12 12:01	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-22**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-23**
Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.30		0.100	0.100	SU			12/13/12 20:06	1
Temperature	17.3		1.00	1.00	Degrees C			12/13/12 20:06	1
Percent Moisture	13		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-24**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.5		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36589-25**
Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.87		0.100	0.100	SU			12/13/12 20:10	1
Temperature	17.3		1.00	1.00	Degrees C			12/13/12 20:10	1
Percent Moisture	4.5		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-628-SA6-SB-4.5 — **Lab Sample ID: 280-36589-26**
Date Collected: 12/04/12 11:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.5		0.10	0.10	%			12/10/12 12:01	1

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-27**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		0.10	0.10	%			12/10/12 11:53	1

General Chemistry

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-28**
Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.93		0.100	0.100	SU			12/13/12 20:11	1
Temperature	18.0		1.00	1.00	Degrees C			12/13/12 20:11	1
Percent Moisture	18		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-29**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-30**
Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	5.73		0.100	0.100	SU			12/13/12 20:12	1
Temperature	17.5		1.00	1.00	Degrees C			12/13/12 20:12	1
Percent Moisture	16		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-31**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-32**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.24		0.100	0.100	SU			12/13/12 20:13	1
Temperature	17.6		1.00	1.00	Degrees C			12/13/12 20:13	1
Percent Moisture	20		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-33**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.1		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36589-34**
Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.57		0.100	0.100	SU			12/13/12 20:15	1
Temperature	18.2		1.00	1.00	Degrees C			12/13/12 20:15	1
Percent Moisture	5.1		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-629-SA6-SB-3.0 — **Lab Sample ID: 280-36589-35**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.1		0.10	0.10	%			12/10/12 12:01	1

General Chemistry

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-36**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-37**
Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.66		0.100	0.100	SU			12/13/12 20:26	1
Temperature	18.1		1.00	1.00	Degrees C			12/13/12 20:26	1
Percent Moisture	20		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-38**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-39**
Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.41		0.100	0.100	SU			12/13/12 20:16	1
Temperature	17.5		1.00	1.00	Degrees C			12/13/12 20:16	1
Percent Moisture	9.1		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-40**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.6		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36589-41**
Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.95		0.100	0.100	SU			12/13/12 20:20	1
Temperature	18.2		1.00	1.00	Degrees C			12/13/12 20:20	1
Percent Moisture	7.6		0.10	0.10	%			12/07/12 14:41	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-42**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.0		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — **Lab Sample ID: 280-36589-43**
Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.00		0.100	0.100	SU			12/13/12 20:23	1
Temperature	18.9		1.00	1.00	Degrees C			12/13/12 20:23	1
Percent Moisture	7.0		0.10	0.10	%			12/07/12 14:41	1

General Chemistry

Client Sample ID: SL-546-SA6-SB-7.0 **Lab Sample ID: 280-36589-44**
Date Collected: 12/04/12 14:34 **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.0		0.10	0.10	%			12/10/12 12:01	1

Client Sample ID: SL-549-SA6-SB-0.0-0.5 **Lab Sample ID: 280-36589-45**
Date Collected: 12/04/12 12:55 **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.10	0.10	%			12/10/12 11:53	1

Client Sample ID: SL-549-SA6-SB-0.0-0.5 **Lab Sample ID: 280-36589-46**
Date Collected: 12/04/12 12:55 **Matrix: Solid**
Date Received: 12/05/12 10:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.50		0.100	0.100	SU			12/13/12 20:25	1
Temperature	18.8		1.00	1.00	Degrees C			12/13/12 20:25	1
Percent Moisture	9.1		0.10	0.10	%			12/07/12 14:41	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-151130/1-A
Matrix: Solid
Analysis Batch: 151869

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151130

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.7	0.25	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
2-Methylnaphthalene	0.410	J	9.7	0.30	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Acenaphthene	ND		9.7	0.15	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Acenaphthylene	ND		9.7	0.16	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Anthracene	ND		9.7	0.70	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Benzo[a]anthracene	ND		9.7	0.87	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Benzo[a]pyrene	ND		9.7	0.72	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Benzo[b]fluoranthene	ND		9.7	1.2	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Benzo[g,h,i]perylene	ND		9.7	1.1	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Benzo[k]fluoranthene	ND		9.7	0.97	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Chrysene	ND		9.7	0.97	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Dibenz(a,h)anthracene	ND		9.7	1.3	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Fluoranthene	ND		9.7	0.97	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Fluorene	ND		9.7	0.45	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Indeno[1,2,3-cd]pyrene	ND		9.7	1.1	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Naphthalene	ND		9.7	0.32	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
N-Nitrosodimethylamine	ND		9.7	2.3	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Phenanthrene	ND		9.7	1.1	ug/Kg		12/07/12 17:30	12/12/12 16:57	1
Pyrene	ND		9.7	1.1	ug/Kg		12/07/12 17:30	12/12/12 16:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*45 - 130*	*12/07/12 17:30*	*12/12/12 16:57*	*1*
Nitrobenzene-d5	*119*		*40 - 130*	*12/07/12 17:30*	*12/12/12 16:57*	*1*
Terphenyl-d14	*94*		*45 - 130*	*12/07/12 17:30*	*12/12/12 16:57*	*1*

Lab Sample ID: LCS 280-151130/2-A
Matrix: Solid
Analysis Batch: 151869

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	28.8	28.5		ug/Kg		99	50 - 150
2-Methylnaphthalene	28.8	26.8		ug/Kg		93	30 - 120
Acenaphthene	28.8	26.2		ug/Kg		91	35 - 120
Acenaphthylene	28.8	26.7		ug/Kg		92	41 - 120
Anthracene	28.8	25.7		ug/Kg		89	43 - 120
Benzo[a]anthracene	28.8	26.3		ug/Kg		91	36 - 120
Benzo[a]pyrene	28.8	26.4		ug/Kg		92	20 - 120
Benzo[b]fluoranthene	28.8	28.2		ug/Kg		98	37 - 120
Benzo[g,h,i]perylene	28.8	27.9		ug/Kg		97	20 - 123
Benzo[k]fluoranthene	28.8	27.5		ug/Kg		95	46 - 120
Chrysene	28.8	28.2		ug/Kg		98	34 - 120
Dibenz(a,h)anthracene	28.8	30.0		ug/Kg		104	20 - 120
Fluoranthene	28.8	27.1		ug/Kg		94	45 - 120
Fluorene	28.8	25.8		ug/Kg		89	44 - 120
Indeno[1,2,3-cd]pyrene	28.8	29.0		ug/Kg		101	20 - 127
Naphthalene	28.8	27.3		ug/Kg		95	44 - 120
Phenanthrene	28.8	27.1		ug/Kg		94	44 - 120
Pyrene	28.8	27.4		ug/Kg		95	43 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-151130/2-A
Matrix: Solid
Analysis Batch: 151869

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*45 - 130*
Nitrobenzene-d5	*114*		*40 - 130*
Terphenyl-d14	*92*		*45 - 130*

Lab Sample ID: 280-36589-42 MS
Matrix: Solid
Analysis Batch: 151869

Client Sample ID: SL-546-SA6-SB-6.5-7.5
Prep Type: Total/NA
Prep Batch: 151130

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	ND		31.8	27.4		ug/Kg	☼	86	50 - 150
2-Methylnaphthalene	ND		31.8	25.4		ug/Kg	☼	80	30 - 120
Acenaphthene	ND		31.8	25.2		ug/Kg	☼	79	35 - 120
Acenaphthylene	ND		31.8	26.9		ug/Kg	☼	85	41 - 120
Anthracene	ND		31.8	25.9		ug/Kg	☼	81	43 - 120
Benzo[a]anthracene	ND		31.8	27.6		ug/Kg	☼	87	36 - 120
Benzo[a]pyrene	ND		31.8	30.2		ug/Kg	☼	95	20 - 120
Benzo[b]fluoranthene	ND		31.8	29.5		ug/Kg	☼	93	37 - 120
Benzo[g,h,i]perylene	ND		31.8	29.1		ug/Kg	☼	91	20 - 123
Benzo[k]fluoranthene	ND		31.8	27.4		ug/Kg	☼	86	46 - 120
Chrysene	ND		31.8	27.0		ug/Kg	☼	85	34 - 120
Dibenz(a,h)anthracene	ND		31.8	31.5		ug/Kg	☼	99	20 - 120
Fluoranthene	ND		31.8	26.6		ug/Kg	☼	84	45 - 120
Fluorene	0.54	J	31.8	25.0		ug/Kg	☼	77	44 - 120
Indeno[1,2,3-cd]pyrene	ND		31.8	33.9		ug/Kg	☼	107	20 - 127
Naphthalene	ND		31.8	26.2		ug/Kg	☼	82	44 - 120
Phenanthrene	ND		31.8	25.9		ug/Kg	☼	82	44 - 120
Pyrene	ND		31.8	26.7		ug/Kg	☼	84	43 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*45 - 130*
Nitrobenzene-d5	*122*		*40 - 130*
Terphenyl-d14	*83*		*45 - 130*

Lab Sample ID: 280-36589-42 MSD
Matrix: Solid
Analysis Batch: 151869

Client Sample ID: SL-546-SA6-SB-6.5-7.5
Prep Type: Total/NA
Prep Batch: 151130

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		31.7	26.8		ug/Kg	☼	85	50 - 150	2	50
2-Methylnaphthalene	ND		31.7	24.8		ug/Kg	☼	78	30 - 120	2	30
Acenaphthene	ND		31.7	24.5		ug/Kg	☼	77	35 - 120	3	50
Acenaphthylene	ND		31.7	26.3		ug/Kg	☼	83	41 - 120	2	50
Anthracene	ND		31.7	26.3		ug/Kg	☼	83	43 - 120	1	50
Benzo[a]anthracene	ND		31.7	28.1		ug/Kg	☼	89	36 - 120	2	40
Benzo[a]pyrene	ND		31.7	30.4		ug/Kg	☼	96	20 - 120	0	30
Benzo[b]fluoranthene	ND		31.7	30.5		ug/Kg	☼	96	37 - 120	3	28
Benzo[g,h,i]perylene	ND		31.7	29.4		ug/Kg	☼	93	20 - 123	1	30
Benzo[k]fluoranthene	ND		31.7	27.9		ug/Kg	☼	88	46 - 120	2	28

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36589-42 MSD — **Client Sample ID: SL-546-SA6-SB-6.5-7.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151869 — **Prep Batch: 151130**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	ND		31.7	27.5		ug/Kg	☼	87	34 - 120	2	41
Dibenz(a,h)anthracene	ND		31.7	33.5		ug/Kg	☼	106	20 - 120	6	25
Fluoranthene	ND		31.7	26.8		ug/Kg	☼	84	45 - 120	1	30
Fluorene	0.54	J	31.7	25.0		ug/Kg	☼	77	44 - 120	0	50
Indeno[1,2,3-cd]pyrene	ND		31.7	34.7		ug/Kg	☼	109	20 - 127	2	50
Naphthalene	ND		31.7	25.6		ug/Kg	☼	81	44 - 120	2	50
Phenanthrene	ND		31.7	26.2		ug/Kg	☼	83	44 - 120	1	42
Pyrene	ND		31.7	26.8		ug/Kg	☼	85	43 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*45 - 130*
Nitrobenzene-d5	*117*		*40 - 130*
Terphenyl-d14	*83*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-150591/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/05/12 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*82 - 110*		*12/05/12 16:09*	*1*

Lab Sample ID: LCS 280-150591/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	104		ug/L		103	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Lab Sample ID: LCSD 280-150591/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	101		ug/L		100	79 - 149	3	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*82 - 110*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 280-150673/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151627 — **Prep Batch: 150673**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.33	mg/Kg		12/05/12 19:41	12/11/12 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*77 - 123*	*12/05/12 19:41*	*12/11/12 13:22*	*1*

Lab Sample ID: LCS 280-150673/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151627 — **Prep Batch: 150673**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	5.50	5.97		mg/Kg		109	85 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*101*		*77 - 123*

Lab Sample ID: LCSD 280-150673/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151627 — **Prep Batch: 150673**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	5.50	6.01		mg/Kg		109	85 - 153	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*100*		*77 - 123*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-151002/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152069 — **Prep Batch: 151002**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		9.5	0.95	mg/Kg		12/07/12 11:50	12/12/12 12:06	1
EFH (C12-C14)	ND		4.8	0.95	mg/Kg		12/07/12 11:50	12/12/12 12:06	1
EFH (C15-C20)	ND		4.8	0.95	mg/Kg		12/07/12 11:50	12/12/12 12:06	1
EFH (C21-C30)	ND		4.8	0.95	mg/Kg		12/07/12 11:50	12/12/12 12:06	1
EFH (C8-C11)	ND		4.8	0.95	mg/Kg		12/07/12 11:50	12/12/12 12:06	1
Total Petroleum Hydrocarbons (C8-C40)	ND		3.8	0.65	mg/Kg		12/07/12 11:50	12/12/12 12:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*49 - 115*	*12/07/12 11:50*	*12/12/12 12:06*	*1*

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: LCS 280-151002/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152069 — **Prep Batch: 151002**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	33.1	33.6		mg/Kg		101	43 - 115
EFH (C15-C20)	49.7	48.3		mg/Kg		97	56 - 115
EFH (C21-C30)	66.2	64.0		mg/Kg		97	55 - 115
EFH (C8-C11)	16.6	15.2		mg/Kg		92	21 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*89*		*49 - 115*

Lab Sample ID: 280-36589-6 MS — **Client Sample ID: SL-532-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152069 — **Prep Batch: 151002**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	ND		39.2	40.0		mg/Kg	☼	102	43 - 115
EFH (C15-C20)	ND		58.8	59.5		mg/Kg	☼	101	56 - 115
EFH (C21-C30)	11		78.4	92.0		mg/Kg	☼	103	55 - 115
EFH (C8-C11)	ND		19.6	17.6		mg/Kg	☼	90	21 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*95*		*49 - 115*

Lab Sample ID: 280-36589-6 MSD — **Client Sample ID: SL-532-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152069 — **Prep Batch: 151002**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	ND		38.4	38.4		mg/Kg	☼	100	43 - 115	4	30
EFH (C15-C20)	ND		57.7	58.1		mg/Kg	☼	101	56 - 115	2	30
EFH (C21-C30)	11		76.9	90.6		mg/Kg	☼	104	55 - 115	1	30
EFH (C8-C11)	ND		19.2	16.4		mg/Kg	☼	85	21 - 125	7	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*98*		*49 - 115*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-151292/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151827 — **Prep Batch: 151292**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.55	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
4,4'-DDE	ND		3.3	0.24	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
4,4'-DDT	ND		3.3	0.59	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Aldrin	ND		1.7	0.25	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
alpha-BHC	ND		1.7	0.21	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
beta-BHC	ND		1.7	0.66	ug/Kg		12/10/12 10:55	12/13/12 03:23	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 280-151292/1-A
Matrix: Solid
Analysis Batch: 151827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151292

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		1.7	0.40	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Dieldrin	ND		3.3	0.21	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endosulfan I	ND		1.7	0.18	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endosulfan II	ND		3.3	0.29	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endosulfan sulfate	ND		3.3	0.28	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endrin	ND		3.3	0.31	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endrin aldehyde	ND		3.3	0.17	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Endrin ketone	ND		3.3	0.49	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Heptachlor	ND		1.7	0.21	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Methoxychlor	ND		6.7	0.45	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Mirex	ND		1.7	0.27	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Technical Chlordane	ND		17	7.8	ug/Kg		12/10/12 10:55	12/13/12 03:23	1
Toxaphene	ND		50	16	ug/Kg		12/10/12 10:55	12/13/12 03:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*20 - 120*	*12/10/12 10:55*	*12/13/12 03:23*	*1*
DCB Decachlorobiphenyl	*95*		*20 - 120*	*12/10/12 10:55*	*12/13/12 03:23*	*1*
Tetrachloro-m-xylene	*95*		*50 - 130*	*12/10/12 10:55*	*12/13/12 03:23*	*1*
Tetrachloro-m-xylene	*93*		*50 - 130*	*12/10/12 10:55*	*12/13/12 03:23*	*1*

Lab Sample ID: LCS 280-151292/2-A
Matrix: Solid
Analysis Batch: 151827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	16.0		ug/Kg		97	54 - 130
4,4'-DDE	16.6	16.8		ug/Kg		101	58 - 121
4,4'-DDT	16.6	16.8		ug/Kg		101	57 - 133
Aldrin	16.6	16.5		ug/Kg		99	63 - 115
alpha-BHC	16.6	16.8		ug/Kg		101	64 - 116
beta-BHC	16.6	16.9		ug/Kg		102	67 - 115
delta-BHC	16.6	17.2		ug/Kg		103	67 - 115
Dieldrin	16.6	16.5		ug/Kg		99	65 - 127
Endosulfan I	16.6	16.3		ug/Kg		98	65 - 118
Endosulfan II	16.6	16.3		ug/Kg		98	71 - 118
Endosulfan sulfate	16.6	15.5		ug/Kg		93	67 - 123
Endrin	16.6	16.5		ug/Kg		99	77 - 134
Endrin aldehyde	16.6	12.4		ug/Kg		75	47 - 115
Endrin ketone	16.6	15.6		ug/Kg		94	62 - 115
gamma-BHC (Lindane)	16.6	16.7		ug/Kg		101	63 - 118
Heptachlor	16.6	15.7		ug/Kg		95	68 - 115
Heptachlor epoxide	16.6	16.2		ug/Kg		98	66 - 117
Methoxychlor	16.6	17.6		ug/Kg		106	67 - 130

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-151292/2-A
Matrix: Solid
Analysis Batch: 151827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151292

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*103*		*20 - 120*
DCB Decachlorobiphenyl	*101*		*20 - 120*
Tetrachloro-m-xylene	*95*		*50 - 130*
Tetrachloro-m-xylene	*89*		*50 - 130*

Lab Sample ID: LCS 280-151292/3-A
Matrix: Solid
Analysis Batch: 151827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	66.2	55.4		ug/Kg		84	19 - 174

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*99*		*20 - 120*
Tetrachloro-m-xylene	*92*		*50 - 130*

Lab Sample ID: 280-36589-16 MS
Matrix: Solid
Analysis Batch: 151827

Client Sample ID: SL-626-SA6-SB-0.0-0.5
Prep Type: Total/NA
Prep Batch: 151292

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		18.3	16.5		ug/Kg	☼	90	54 - 130
4,4'-DDE	1.9	J p	18.3	17.7		ug/Kg	☼	90	58 - 121
4,4'-DDT	6.5		18.3	21.2		ug/Kg	☼	80	57 - 133
Aldrin	ND		18.3	15.6		ug/Kg	☼	85	63 - 115
alpha-BHC	ND		18.3	17.4		ug/Kg	☼	95	64 - 116
beta-BHC	ND		18.3	17.0		ug/Kg	☼	93	67 - 115
delta-BHC	ND		18.3	16.2		ug/Kg	☼	88	67 - 115
Dieldrin	ND		18.3	15.7		ug/Kg	☼	86	65 - 127
Endosulfan I	ND		18.3	14.4		ug/Kg	☼	78	65 - 118
Endosulfan II	ND		18.3	15.2		ug/Kg	☼	83	71 - 118
Endosulfan sulfate	ND		18.3	14.5		ug/Kg	☼	79	67 - 123
Endrin	ND		18.3	16.2		ug/Kg	☼	89	77 - 134
Endrin aldehyde	ND		18.3	12.2		ug/Kg	☼	67	47 - 115
Endrin ketone	ND		18.3	14.0		ug/Kg	☼	76	62 - 115
gamma-BHC (Lindane)	ND		18.3	15.6		ug/Kg	☼	85	63 - 118
Heptachlor	ND		18.3	15.0		ug/Kg	☼	82	68 - 115
Heptachlor epoxide	ND		18.3	15.3		ug/Kg	☼	84	66 - 117
Methoxychlor	ND		18.3	16.1		ug/Kg	☼	88	67 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*20 - 120*
DCB Decachlorobiphenyl	*98*		*20 - 120*
Tetrachloro-m-xylene	*86*		*50 - 130*
Tetrachloro-m-xylene	*75*		*50 - 130*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-36589-16 MS — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151827 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	ND		73.1	794	F	ug/Kg	☼	1087	19 - 174

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*20 - 120*
Tetrachloro-m-xylene	*99*		*50 - 130*

Lab Sample ID: 280-36589-16 MSD — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151827 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		18.4	17.0		ug/Kg	☼	93	54 - 130	3	20
4,4'-DDE	1.9	J p	18.4	18.1		ug/Kg	☼	92	58 - 121	2	15
4,4'-DDT	6.5		18.4	22.9		ug/Kg	☼	89	57 - 133	8	29
Aldrin	ND		18.4	15.9		ug/Kg	☼	87	63 - 115	2	50
alpha-BHC	ND		18.4	17.1		ug/Kg	☼	93	64 - 116	2	17
beta-BHC	ND		18.4	16.3		ug/Kg	☼	89	67 - 115	4	17
delta-BHC	ND		18.4	16.1		ug/Kg	☼	88	67 - 115	1	19
Dieldrin	ND		18.4	16.0		ug/Kg	☼	87	65 - 127	2	25
Endosulfan I	ND		18.4	14.7		ug/Kg	☼	80	65 - 118	2	26
Endosulfan II	ND		18.4	15.8		ug/Kg	☼	86	71 - 118	4	20
Endosulfan sulfate	ND		18.4	14.8		ug/Kg	☼	80	67 - 123	2	22
Endrin	ND		18.4	16.7		ug/Kg	☼	91	77 - 134	3	30
Endrin aldehyde	ND		18.4	12.5		ug/Kg	☼	68	47 - 115	2	29
Endrin ketone	ND		18.4	14.6		ug/Kg	☼	80	62 - 115	5	20
gamma-BHC (Lindane)	ND		18.4	15.3		ug/Kg	☼	83	63 - 118	2	24
Heptachlor	ND		18.4	15.2		ug/Kg	☼	83	68 - 115	1	18
Heptachlor epoxide	ND		18.4	15.6		ug/Kg	☼	85	66 - 117	2	18
Methoxychlor	ND		18.4	16.9		ug/Kg	☼	92	67 - 130	5	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*20 - 120*
DCB Decachlorobiphenyl	*98*		*20 - 120*
Tetrachloro-m-xylene	*83*		*50 - 130*
Tetrachloro-m-xylene	*76*		*50 - 130*

Lab Sample ID: 280-36589-16 MSD — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151827 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene	ND		70.3	742	F	ug/Kg	☼	1055	19 - 174	7	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*20 - 120*
Tetrachloro-m-xylene	*84*		*50 - 130*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-151292/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1221	ND		33	16	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1232	ND		17	5.1	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1242	ND		17	9.1	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1248	ND		17	5.6	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1254	ND		17	5.5	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1260	ND		17	2.7	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1262	ND		33	12	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 1268	ND		33	4.0	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 5432	ND		50	16	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 5442	ND		50	32	ug/Kg		12/10/12 10:55	12/12/12 13:29	1
Aroclor 5460	ND		50	16	ug/Kg		12/10/12 10:55	12/12/12 13:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*		*45 - 120*	*12/10/12 10:55*	*12/12/12 13:29*	*1*
Tetrachloro-m-xylene	*104*		*45 - 120*	*12/10/12 10:55*	*12/12/12 13:29*	*1*

Lab Sample ID: LCS 280-151292/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	66.4	67.3		ug/Kg		101	54 - 132
Aroclor 1260	66.4	82.6		ug/Kg		124	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*112*		*45 - 120*
Tetrachloro-m-xylene	*102*		*45 - 120*

Lab Sample ID: LCS 280-151292/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	65.8	66.0		ug/Kg		100	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*111*		*45 - 120*
Tetrachloro-m-xylene	*103*		*45 - 120*

Lab Sample ID: 280-36589-16 MS — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		71.2	104	F	ug/Kg	☼	146	54 - 132
Aroclor 1260	ND		71.2	99.0	F	ug/Kg	☼	139	62 - 129

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36589-16 MS — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	98		45 - 120
Tetrachloro-m-xylene	93		45 - 120

Lab Sample ID: 280-36589-16 MS — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 5460	ND		71.0	74.0		ug/Kg	☼	104	62 - 129		

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	95		45 - 120
Tetrachloro-m-xylene	98		45 - 120

Lab Sample ID: 280-36589-16 MSD — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		74.8	139	F	ug/Kg	☼	186	54 - 132	29	36
Aroclor 1260	ND		74.8	121	F	ug/Kg	☼	162	62 - 129	20	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	101		45 - 120
Tetrachloro-m-xylene	104		45 - 120

Lab Sample ID: 280-36589-16 MSD — **Client Sample ID: SL-626-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151292**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		72.4	66.0		ug/Kg	☼	91	62 - 129	12	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	93		45 - 120
Tetrachloro-m-xylene	92		45 - 120

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-150882/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	2.3	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
2,4-D	ND		39	14	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
2,4-DB	ND		78	7.3	ug/Kg		12/06/12 20:50	12/10/12 18:09	1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 280-150882/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		98	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dicamba	ND		39	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dichlorprop	ND		39	3.1	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Dinoseb	ND		39	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
MCPA	ND		6400	2000	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
MCPP	ND		6400	2000	ug/Kg		12/06/12 20:50	12/10/12 18:09	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg		12/06/12 20:50	12/10/12 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*69*		*50 - 150*	*12/06/12 20:50*	*12/10/12 18:09*	*1*
2,4-Dichlorophenylacetic acid	*70*		*50 - 150*	*12/06/12 20:50*	*12/10/12 18:09*	*1*

Lab Sample ID: LCS 280-150882/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	94.3	95.2		ug/Kg		101	24 - 115
2,4-D	90.4	92.3		ug/Kg		102	32 - 115
2,4-DB	98.2	95.1		ug/Kg		97	37 - 119
Dalapon	102	88.2	J	ug/Kg		86	11 - 115
Dicamba	90.4	78.8		ug/Kg		87	11 - 115
Dichlorprop	90.4	83.9		ug/Kg		93	35 - 115
Dinoseb	90.4	7.52	J	ug/Kg		8	5 - 166
MCPA	9160	7910		ug/Kg		86	37 - 115
MCPP	9170	8720		ug/Kg		95	48 - 132
Silvex (2,4,5-TP)	90.4	88.8		ug/Kg		98	53 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*50 - 150*
2,4-Dichlorophenylacetic acid	*86*		*50 - 150*

Lab Sample ID: LCSD 280-150882/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150882**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	94.1	82.9		ug/Kg		88	24 - 115	14	40
2,4-D	90.2	81.8		ug/Kg		91	32 - 115	12	40
2,4-DB	98.0	93.0		ug/Kg		95	37 - 119	2	50
Dalapon	102	78.1	J	ug/Kg		77	11 - 115	12	50
Dicamba	90.2	73.2		ug/Kg		81	11 - 115	7	50
Dichlorprop	90.2	77.7		ug/Kg		86	35 - 115	8	50
Dinoseb	90.2	5.02	J	ug/Kg		6	5 - 166	40	50
MCPA	9140	7260		ug/Kg		79	37 - 115	9	50
MCPP	9150	8120		ug/Kg		89	48 - 132	7	50
Silvex (2,4,5-TP)	90.2	79.2		ug/Kg		88	53 - 134	12	40

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 280-150882/3-A
Matrix: Solid
Analysis Batch: 151352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 150882

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	75		50 - 150
2,4-Dichlorophenylacetic acid	75		50 - 150

Lab Sample ID: 280-36651-A-1-I MS
Matrix: Solid
Analysis Batch: 151352

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 150882

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	18	J p	94.1	45.4		ug/Kg		44	24 - 115
2,4-D	46		90.2	85.1		ug/Kg		44	32 - 115
2,4-DB	ND		98.0	48.7	J	ug/Kg		50	37 - 119
Dalapon	ND		102	70.3	J	ug/Kg		69	11 - 115
Dicamba	ND		90.2	46.6		ug/Kg		52	11 - 115
Dichlorprop	210		90.2	352	F	ug/Kg		390	35 - 115
Dinoseb	45	J p	90.2	ND	F	ug/Kg		0	5 - 166
MCPA	ND		9140	2760	J F	ug/Kg		30	37 - 115
MCPP	69000		9150	68700	E F	ug/Kg		751	48 - 132
Silvex (2,4,5-TP)	ND		90.2	41.2	F	ug/Kg		46	53 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4-Dichlorophenylacetic acid	62		50 - 150
2,4-Dichlorophenylacetic acid	59		50 - 150

Lab Sample ID: 280-36651-A-1-J MSD
Matrix: Solid
Analysis Batch: 151352

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 150882

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	18	J p	95.4	47.9		ug/Kg		46	24 - 115	6	40
2,4-D	46		91.5	93.0		ug/Kg		52	32 - 115	9	40
2,4-DB	ND		99.4	44.1	J	ug/Kg		44	37 - 119	10	50
Dalapon	ND		103	71.5	J	ug/Kg		69	11 - 115	2	50
Dicamba	ND		91.5	49.6		ug/Kg		54	11 - 115	6	50
Dichlorprop	210		91.5	41.1	F	ug/Kg		45	35 - 115	158	50
Dinoseb	4.7	J p	91.5	ND	F	ug/Kg		0	5 - 166	NC	50
MCPA	ND		9260	3550	J	ug/Kg		38	37 - 115	25	50
MCPP	69000		9280	6100	J F	ug/Kg		66	48 - 132	167	50
Silvex (2,4,5-TP)	ND		91.5	43.8	F	ug/Kg		48	53 - 134	6	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	55		50 - 150
2,4-Dichlorophenylacetic acid	62		50 - 150

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-73329/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73119 — **Prep Batch: 73329**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		4.0	0.15	mg/Kg		12/13/12 17:06	12/14/12 00:11	10

Lab Sample ID: LCS 440-73329/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73119 — **Prep Batch: 73329**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium VI	16.0	13.0		mg/Kg		81	65 - 110

Lab Sample ID: 440-32060-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73119 — **Prep Batch: 73329**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium VI	0.35	J	15.9	12.6		mg/Kg		77	75 - 125

Lab Sample ID: 440-32060-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73119 — **Prep Batch: 73329**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium VI	0.35	J	15.9	11.3	F	mg/Kg		69	75 - 125	11	20

Lab Sample ID: 440-32060-A-1-G MSI — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73119 — **Prep Batch: 73329**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium VI	0.35		2190	1240		mg/Kg		57	55 - 110

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-42544/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43667 — **Prep Batch: 42544**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1700	690	ug/Kg		12/10/12 13:09	12/12/12 17:16	1

Lab Sample ID: LCS 490-42544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43667 — **Prep Batch: 42544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	2000	2270		ug/Kg		113	44 - 150

Method: 8315A - Carbonyl Compounds by HPLC (Continued)

Lab Sample ID: 280-36589-41 MS — **Client Sample ID: SL-546-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43667 — **Prep Batch: 42544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	ND		2160	2380		ug/Kg	☼	110	21 - 153

Lab Sample ID: 280-36589-41 MSD — **Client Sample ID: SL-546-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43667 — **Prep Batch: 42544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Formaldehyde	ND		2130	1840		ug/Kg	☼	86	21 - 153	26	39

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-150670/21-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151000**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Boron	ND		9.7	0.98	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Calcium	ND		50	14	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Iron	ND		34	3.8	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Lithium	ND		37	0.30	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Magnesium	ND		10	3.7	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Manganese	ND		500	0.10	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Phosphorus	ND		10	1.6	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Potassium	ND		6400	41	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Sodium	ND		500	59	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Strontium	ND		0.50	0.036	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Tin	ND		11	0.91	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Titanium	ND		1.0	0.14	mg/Kg		12/10/12 13:00	12/11/12 17:38	1
Zirconium	ND		8.6	0.35	mg/Kg		12/10/12 13:00	12/11/12 17:38	1

Lab Sample ID: LCS 280-150670/22-B — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151000**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	195	J	mg/Kg		97	80 - 120
Boron	100	95.9		mg/Kg		96	80 - 120
Calcium	5000	4990		mg/Kg		100	80 - 120
Iron	100	101		mg/Kg		101	80 - 120
Lithium	100	102		mg/Kg		102	80 - 120
Magnesium	5000	4910		mg/Kg		98	80 - 120
Manganese	50.0	48.8	J	mg/Kg		98	80 - 120
Phosphorus	1000	1010		mg/Kg		101	80 - 120
Potassium	5000	5100	J	mg/Kg		102	80 - 120
Sodium	5000	5290		mg/Kg		106	80 - 120
Strontium	100	101		mg/Kg		101	80 - 120
Tin	200	198		mg/Kg		99	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-150670/22-B — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151000**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Titanium	100	98.5		mg/Kg		99	80 - 120
Zirconium	50.0	49.4		mg/Kg		99	80 - 120

Lab Sample ID: 280-36589-46 MS — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151000**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	9700	J	196	11200	J 4	mg/Kg	☼	753	75 - 125
Boron	ND		98.2	81.0		mg/Kg	☼	82	75 - 125
Calcium	2400		4910	6910		mg/Kg	☼	91	75 - 125
Iron	17000		98.2	16600	4	mg/Kg	☼	-380	75 - 125
Lithium	24	J	98.2	114		mg/Kg	☼	92	75 - 125
Magnesium	3900		4910	8270		mg/Kg	☼	88	75 - 125
Manganese	240	J	49.1	275	J 4	mg/Kg	☼	78	75 - 125
Phosphorus	320		982	1160		mg/Kg	☼	86	75 - 125
Potassium	2700	J	4910	7310		mg/Kg	☼	93	75 - 125
Sodium	100	J	4910	4750		mg/Kg	☼	95	75 - 125
Strontium	11		98.2	99.8		mg/Kg	☼	90	75 - 125
Tin	3.5	J	196	167		mg/Kg	☼	83	75 - 125
Titanium	920		98.2	1100	4	mg/Kg	☼	183	75 - 125
Zirconium	0.86	J	49.1	44.8		mg/Kg	☼	90	75 - 125

Lab Sample ID: 280-36589-46 MSD — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151000**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	9700	J	188	10900	J 4	mg/Kg	☼	597	75 - 125	3	20
Boron	ND		94.0	78.3		mg/Kg	☼	83	75 - 125	3	20
Calcium	2400		4700	6730		mg/Kg	☼	91	75 - 125	3	20
Iron	17000		94.0	16200	4	mg/Kg	☼	-767	75 - 125	2	20
Lithium	24	J	94.0	111		mg/Kg	☼	93	75 - 125	3	20
Magnesium	3900		4700	8140		mg/Kg	☼	89	75 - 125	2	20
Manganese	240	J	47.0	274	J 4	mg/Kg	☼	78	75 - 125	1	20
Phosphorus	320		940	1150		mg/Kg	☼	88	75 - 125	1	20
Potassium	2700	J	4700	7090		mg/Kg	☼	92	75 - 125	3	20
Sodium	100	J	4700	4610		mg/Kg	☼	96	75 - 125	3	20
Strontium	11		94.0	96.9		mg/Kg	☼	91	75 - 125	3	20
Tin	3.5	J	188	161		mg/Kg	☼	84	75 - 125	3	20
Titanium	920		94.0	1050	4	mg/Kg	☼	134	75 - 125	5	20
Zirconium	0.86	J	47.0	42.6		mg/Kg	☼	89	75 - 125	5	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-150670/21-C | **Client Sample ID: Method Blank**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 151575 | **Prep Batch: 151004**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Arsenic	ND		15	0.051	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Barium	ND		140	0.071	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Beryllium	ND		1.1	0.023	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Chromium	ND		37	0.076	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Cobalt	ND		21	0.0066	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Copper	ND		29	0.071	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Lead	ND		34	0.018	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Nickel	ND		29	0.025	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Selenium	ND		0.66	0.13	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Silver	ND		0.79	0.020	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Thallium	ND		0.46	0.0035	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Vanadium	ND		62	0.039	mg/Kg		12/10/12 13:00	12/10/12 23:53	1
Zinc	ND		110	0.32	mg/Kg		12/10/12 13:00	12/10/12 23:53	1

Lab Sample ID: LCS 280-150670/22-C | **Client Sample ID: Lab Control Sample**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 151575 | **Prep Batch: 151004**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.7		mg/Kg		98	80 - 120
Arsenic	20.0	19.9		mg/Kg		99	80 - 120
Barium	20.0	20.2	J	mg/Kg		101	80 - 120
Beryllium	20.0	19.2		mg/Kg		96	80 - 120
Cadmium	20.0	20.0		mg/Kg		100	80 - 120
Chromium	20.0	20.6	J	mg/Kg		103	80 - 120
Cobalt	20.0	20.5	J	mg/Kg		102	80 - 120
Copper	20.0	21.3	J	mg/Kg		107	80 - 120
Lead	20.0	21.0	J	mg/Kg		105	80 - 120
Molybdenum	20.0	19.7		mg/Kg		98	80 - 120
Nickel	20.0	21.2	J	mg/Kg		106	80 - 120
Selenium	20.0	19.4		mg/Kg		97	80 - 120
Silver	20.0	20.9		mg/Kg		105	80 - 120
Thallium	20.0	21.1		mg/Kg		106	80 - 120
Vanadium	20.0	19.9	J	mg/Kg		99	80 - 120
Zinc	20.0	20.3	J	mg/Kg		101	80 - 120

Lab Sample ID: 280-36589-46 MS | **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 151575 | **Prep Batch: 151004**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.016	J	19.6	2.63	J F	mg/Kg	☼	13	75 - 125
Arsenic	3.1	J	19.6	22.9		mg/Kg	☼	101	75 - 125
Barium	76	J	19.6	101	J	mg/Kg	☼	125	75 - 125
Beryllium	0.40	J	19.6	20.4		mg/Kg	☼	102	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36589-46 MS — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151575 — **Prep Batch: 151004**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.13	J	19.6	20.8		mg/Kg	☼	105	75 - 125
Chromium	14	J	19.6	39.9	F	mg/Kg	☼	132	75 - 125
Cobalt	5.2	J	19.6	25.8		mg/Kg	☼	105	75 - 125
Copper	7.2	J	19.6	26.4	J	mg/Kg	☼	98	75 - 125
Lead	3.8	J	19.6	24.7	J	mg/Kg	☼	106	75 - 125
Molybdenum	0.22	J	19.6	19.5		mg/Kg	☼	98	75 - 125
Nickel	8.3	J	19.6	29.2		mg/Kg	☼	107	75 - 125
Selenium	0.61	J	19.6	20.6		mg/Kg	☼	102	75 - 125
Silver	ND		19.6	20.2		mg/Kg	☼	103	75 - 125
Thallium	0.27	J	19.6	21.8		mg/Kg	☼	110	75 - 125
Vanadium	29	J	19.6	51.4	J	mg/Kg	☼	115	75 - 125
Zinc	61	J	19.6	80.6	J	mg/Kg	☼	97	75 - 125

Lab Sample ID: 280-36589-46 MSD — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151575 — **Prep Batch: 151004**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.016	J	19.6	2.41	J F	mg/Kg	☼	12	75 - 125	9	20
Arsenic	3.1	J	19.6	22.3		mg/Kg	☼	98	75 - 125	3	20
Barium	76	J	19.6	96.6	J	mg/Kg	☼	104	75 - 125	4	20
Beryllium	0.40	J	19.6	20.3		mg/Kg	☼	101	75 - 125	1	20
Cadmium	0.13	J	19.6	20.2		mg/Kg	☼	102	75 - 125	3	20
Chromium	14	J	19.6	34.2	J	mg/Kg	☼	104	75 - 125	15	20
Cobalt	5.2	J	19.6	24.7		mg/Kg	☼	99	75 - 125	4	20
Copper	7.2	J	19.6	26.0	J	mg/Kg	☼	96	75 - 125	2	20
Lead	3.8	J	19.6	24.2	J	mg/Kg	☼	104	75 - 125	2	20
Molybdenum	0.22	J	19.6	19.0		mg/Kg	☼	96	75 - 125	3	20
Nickel	8.3	J	19.6	27.9	J	mg/Kg	☼	100	75 - 125	5	20
Selenium	0.61	J	19.6	20.3		mg/Kg	☼	100	75 - 125	1	20
Silver	ND		19.6	19.6		mg/Kg	☼	100	75 - 125	3	20
Thallium	0.27	J	19.6	21.4		mg/Kg	☼	108	75 - 125	2	20
Vanadium	29	J	19.6	48.3	J	mg/Kg	☼	99	75 - 125	6	20
Zinc	61	J	19.6	78.6	J	mg/Kg	☼	87	75 - 125	2	20

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 280-150978/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150978**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/07/12 12:10	12/07/12 17:22	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique) (Continued)

Lab Sample ID: LCS 280-150978/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150978**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.417	0.433		mg/Kg		104	85 - 120		

Lab Sample ID: 280-36589-46 MS — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150978**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.474	0.507		mg/Kg	☼	107	65 - 135		

Lab Sample ID: 280-36589-46 MSD — **Client Sample ID: SL-549-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151330 — **Prep Batch: 150978**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.529	0.599		mg/Kg	☼	113	65 - 135	17	20

Method: 9045D - pH

Lab Sample ID: LCS 280-152145/26 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.980		SU		100	95 - 105		

Lab Sample ID: LCS 280-152145/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.960		SU		99	95 - 105		

Lab Sample ID: LCSD 280-152145/27 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	6.980		SU		100	95 - 105	0	5

Lab Sample ID: LCSD 280-152145/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	6.960		SU		99	95 - 105	0	5

Method: 9045D - pH (Continued)

Lab Sample ID: 280-36589-3 DU — **Client Sample ID: SL-529-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	6.89			6.900		SU				0.1	5
Temperature	17.2			17.20		Degrees C				0	5

Lab Sample ID: 280-36589-43 DU — **Client Sample ID: SL-546-SA6-SB-6.5-7.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152145

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.00			6.960		SU				0.6	5
Temperature	18.9			18.90		Degrees C				0	5

Method: Moisture - Percent Moisture

Lab Sample ID: 280-36589-3 DU — **Client Sample ID: SL-529-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151103

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	14			15		%				6	20

Lab Sample ID: 280-36589-43 DU — **Client Sample ID: SL-546-SA6-SB-6.5-7.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151103

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	7.0			7.1		%				2	20

GC/MS Semi VOA

Prep Batch: 151130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	3546	
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	3546	
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3546	
280-36589-42 MS	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3546	
280-36589-42 MSD	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3546	
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
LCS 280-151130/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-151130/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 151869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	8270C SIM	151130
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	8270C SIM	151130
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151130
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	151130
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8270C SIM	151130
280-36589-42 MS	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8270C SIM	151130
280-36589-42 MSD	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8270C SIM	151130
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151130
LCS 280-151130/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	151130
MB 280-151130/1-A	Method Blank	Total/NA	Solid	8270C SIM	151130

GC/MS Semi VOA (Continued)

Analysis Batch: 152263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	None	
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	None	
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	None	
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	None	

GC VOA

Analysis Batch: 150591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-1	TB-120412	Total/NA	Water	8015B	
LCS 280-150591/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-150591/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-150591/7	Method Blank	Total/NA	Water	8015B	

Prep Batch: 150673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-14	SL-534-SA6-SB-3.5	Total/NA	Solid	5035	
280-36589-21	SL-627-SA6-SB-1.5	Total/NA	Solid	5035	
280-36589-26	SL-628-SA6-SB-4.5	Total/NA	Solid	5035	
280-36589-35	SL-629-SA6-SB-3.0	Total/NA	Solid	5035	
280-36589-44	SL-546-SA6-SB-7.0	Total/NA	Solid	5035	
LCS 280-150673/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-150673/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 280-150673/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 151627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-14	SL-534-SA6-SB-3.5	Total/NA	Solid	8015B	150673
280-36589-21	SL-627-SA6-SB-1.5	Total/NA	Solid	8015B	150673
280-36589-26	SL-628-SA6-SB-4.5	Total/NA	Solid	8015B	150673
280-36589-35	SL-629-SA6-SB-3.0	Total/NA	Solid	8015B	150673
280-36589-44	SL-546-SA6-SB-7.0	Total/NA	Solid	8015B	150673
LCS 280-150673/2-A	Lab Control Sample	Total/NA	Solid	8015B	150673
LCSD 280-150673/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	150673

GC VOA (Continued)

Analysis Batch: 151627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-150673/1-A	Method Blank	Total/NA	Solid	8015B	150673

GC Semi VOA

Leach Batch: 150670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	Increment, Prep	
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Increment, Prep	
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

Prep Batch: 150882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8151A	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150670
280-36651-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	
280-36651-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	
LCS 280-150882/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 280-150882/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
MB 280-150882/1-A	Method Blank	Total/NA	Solid	8151A	

Prep Batch: 151002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-6 MS	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-6 MSD	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 151002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	3550C	
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	3550C	
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3550C	
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
LCS 280-151002/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 280-151002/1-A	Method Blank	Total/NA	Solid	3550C	

Prep Batch: 151292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	3546	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	3546	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3546	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150670
LCS 280-151292/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-151292/3-A	Lab Control Sample	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 151292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-151292/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-151292/5-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-151292/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 151352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150882
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150882
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8151A	150882
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150882
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150882
280-36651-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	150882
280-36651-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	150882
LCS 280-150882/2-A	Lab Control Sample	Total/NA	Solid	8151A	150882
LCSD 280-150882/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	150882
MB 280-150882/1-A	Method Blank	Total/NA	Solid	8151A	150882

Analysis Batch: 151797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	8082A	151292
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	8082A	151292
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	151292
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	151292
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8082A	151292
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292
LCS 280-151292/4-A	Lab Control Sample	Total/NA	Solid	8082A	151292
LCS 280-151292/5-A	Lab Control Sample	Total/NA	Solid	8082A	151292
MB 280-151292/1-A	Method Blank	Total/NA	Solid	8082A	151292

Analysis Batch: 151827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-16 MS	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292

GC Semi VOA (Continued)

Analysis Batch: 151827 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-16 MSD	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8081B	151292
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151292
LCS 280-151292/2-A	Lab Control Sample	Total/NA	Solid	8081B	151292
LCS 280-151292/3-A	Lab Control Sample	Total/NA	Solid	8081B	151292
MB 280-151292/1-A	Method Blank	Total/NA	Solid	8081B	151292

Analysis Batch: 152069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-6 MS	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-6 MSD	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	8015B	151002
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	8015B	151002
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	151002
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	151002
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8015B	151002
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151002
LCS 280-151002/2-A	Lab Control Sample	Total/NA	Solid	8015B	151002
MB 280-151002/1-A	Method Blank	Total/NA	Solid	8015B	151002

Analysis Batch: 152103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151292

HPLC/IC

Prep Batch: 42544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36589-41 MS	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36589-41 MSD	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8315A Prep	
LCS 490-42544/2-A	Lab Control Sample	Total/NA	Solid	8315A Prep	

HPLC/IC (Continued)

Prep Batch: 42544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-42544/1-A	Method Blank	Total/NA	Solid	8315A Prep	

Analysis Batch: 43667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	42544
280-36589-41 MS	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	42544
280-36589-41 MSD	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	42544
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	8315A	42544
LCS 490-42544/2-A	Lab Control Sample	Total/NA	Solid	8315A	42544
MB 490-42544/1-A	Method Blank	Total/NA	Solid	8315A	42544

Analysis Batch: 73119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	7199	73329
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	7199	73329
440-32060-A-1-E MS	Matrix Spike	Total/NA	Solid	7199	73329
440-32060-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7199	73329
440-32060-A-1-G MSI	Matrix Spike	Total/NA	Solid	7199	73329
LCS 440-73329/2-A	Lab Control Sample	Total/NA	Solid	7199	73329
MB 440-73329/1-A	Method Blank	Total/NA	Solid	7199	73329

Prep Batch: 73329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3060A	
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3060A	
440-32060-A-1-E MS	Matrix Spike	Total/NA	Solid	3060A	
440-32060-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3060A	
440-32060-A-1-G MSI	Matrix Spike	Total/NA	Solid	3060A	
LCS 440-73329/2-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 440-73329/1-A	Method Blank	Total/NA	Solid	3060A	

Metals

Leach Batch: 150670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	Increment, Prep	
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	

Metals (Continued)

Leach Batch: 150670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Increment, Prep	
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
LCS 280-150670/22-B	Lab Control Sample	Total/NA	Solid	Increment, Prep	
LCS 280-150670/22-C	Lab Control Sample	Total/NA	Solid	Increment, Prep	
MB 280-150670/21-B	Method Blank	Total/NA	Solid	Increment, Prep	
MB 280-150670/21-C	Method Blank	Total/NA	Solid	Increment, Prep	

Prep Batch: 150978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	7471B	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	7471B	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	7471B	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150670
LCS 280-150978/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-150978/1-A	Method Blank	Total/NA	Solid	7471B	

Prep Batch: 151000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	3050B	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	3050B	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670

Metals (Continued)

Prep Batch: 151000 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3050B	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
LCS 280-150670/22-B	Lab Control Sample	Total/NA	Solid	3050B	150670
MB 280-150670/21-B	Method Blank	Total/NA	Solid	3050B	150670

Prep Batch: 151004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	3050B	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	3050B	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	3050B	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150670
LCS 280-150670/22-C	Lab Control Sample	Total/NA	Solid	3050B	150670
MB 280-150670/21-C	Method Blank	Total/NA	Solid	3050B	150670

Analysis Batch: 151330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	7471B	150978
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978

Metals (Continued)

Analysis Batch: 151330 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	7471B	150978
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150978
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150978
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	7471B	150978
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150978
LCS 280-150978/2-A	Lab Control Sample	Total/NA	Solid	7471B	150978
MB 280-150978/1-A	Method Blank	Total/NA	Solid	7471B	150978

Analysis Batch: 151575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	6020A	151004
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	6020A	151004
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151004
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	151004
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	6020A	151004
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151004
LCS 280-150670/22-C	Lab Control Sample	Total/NA	Solid	6020A	151004
MB 280-150670/21-C	Method Blank	Total/NA	Solid	6020A	151004

Analysis Batch: 151721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000

Metals (Continued)

Analysis Batch: 151721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	6010C	151000
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	6010C	151000
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	151000
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	151000
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	6010C	151000
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-46 MS	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
280-36589-46 MSD	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151000
LCS 280-150670/22-B	Lab Control Sample	Total/NA	Solid	6010C	151000
MB 280-150670/21-B	Method Blank	Total/NA	Solid	6010C	151000

General Chemistry

Leach Batch: 150670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-3 DU	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-3 DU	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	DI Leach	
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	Increment, Prep	
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	DI Leach	
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

General Chemistry (Continued)

Leach Batch: 150670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Increment, Prep	
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	DI Leach	
280-36589-43 DU	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Increment, Prep	
280-36589-43 DU	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	DI Leach	
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	

Analysis Batch: 151103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-3 DU	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	Moisture	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Moisture	150670
280-36589-43 DU	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Moisture	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150670

Analysis Batch: 151376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-2	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-4	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-6	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-8	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 151376 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-10	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-12	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	
280-36589-14	SL-534-SA6-SB-3.5	Total/NA	Solid	Moisture	
280-36589-15	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-17	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-19	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	Moisture	
280-36589-21	SL-627-SA6-SB-1.5	Total/NA	Solid	Moisture	
280-36589-22	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-24	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36589-26	SL-628-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36589-27	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-29	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-31	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-33	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36589-35	SL-629-SA6-SB-3.0	Total/NA	Solid	Moisture	
280-36589-36	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-38	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-40	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36589-42	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	Moisture	
280-36589-44	SL-546-SA6-SB-7.0	Total/NA	Solid	Moisture	
280-36589-45	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	

Analysis Batch: 152145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36589-3	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-3 DU	SL-529-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-5	SL-531-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-7	SL-532-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-9	SL-533-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-11	SL-534-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-13	SL-534-SA6-SB-3.0-4.0	Total/NA	Solid	9045D	150670
280-36589-16	SL-626-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-18	SL-627-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-20	SL-627-SA6-SB-1.0-2.0	Total/NA	Solid	9045D	150670
280-36589-23	SL-628-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-25	SL-628-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150670
280-36589-28	SL-631-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-30	SL-632-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-32	SL-629-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-34	SL-629-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150670
280-36589-37	SL-630-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-39	SL-536-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-41	SL-546-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
280-36589-43	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	9045D	150670
280-36589-43 DU	SL-546-SA6-SB-6.5-7.5	Total/NA	Solid	9045D	150670
280-36589-46	SL-549-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150670
LCS 280-152145/26	Lab Control Sample	Total/NA	Solid	9045D	
LCS 280-152145/4	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-152145/27	Lab Control Sample Dup	Total/NA	Solid	9045D	
LCSD 280-152145/5	Lab Control Sample Dup	Total/NA	Solid	9045D	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: TB-120412 — Lab Sample ID: 280-36589-1

Date Collected: 12/04/12 08:00 — **Matrix: Water**
Date Received: 12/05/12 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 mL	5 mL	150591	12/05/12 19:15	TEM	TAL DEN

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-2

Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 18:12	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			31.2 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 12:55	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-3

Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 14:33	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:26	JM	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/10/12 23:59	TEL	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:42	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 19:54	DA	TAL DEN

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-4

Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.6 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 18:37	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-4

Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			152069	12/12/12 13:19	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-5

Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		50			152103	12/13/12 18:51	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:29	JM	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:02	TEL	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:45	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 19:56	DA	TAL DEN

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-6

Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.7 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 19:01	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 13:44	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-7

Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.5 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 15:16	TDJ	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-532-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-7

Date Collected: 12/04/12 07:45
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.59 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:31	JM	TAL DEN
Total/NA	Prep	3050B			1.12 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:05	TEL	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:47	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 19:57	DA	TAL DEN

Client Sample ID: SL-533-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-8

Date Collected: 12/04/12 08:40
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 19:26	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 14:57	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-533-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-9

Date Collected: 12/04/12 08:40
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.0 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 15:38	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:33	JM	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:08	TEL	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:49	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 15:09	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-10

Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.6 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 19:51	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.1 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 15:22	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-11

Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.7 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 15:59	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:36	JM	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:11	TEL	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:52	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:00	DA	TAL DEN

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-12

Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.9 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 20:16	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.4 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 15:46	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-13

Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			31.1 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 16:21	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:38	JM	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:14	TEL	TAL DEN
Total/NA	Prep	3050B			1.12 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:54	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:01	DA	TAL DEN

Client Sample ID: SL-534-SA6-SB-3.5 — Lab Sample ID: 280-36589-14

Date Collected: 12/04/12 09:14 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.135 g	5 mL	150673	12/05/12 19:41	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151627	12/11/12 14:51	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 12:01	DFB	TAL DEN

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-15

Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.0 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 20:41	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.9 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 16:11	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-16

Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	8151A			51.0 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-16

Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8151A		5			151352	12/10/12 20:02	KJH	TAL DEN
Total/NA	Prep	3546			30.0 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 16:42	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			151827	12/13/12 00:54	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:45	JM	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:16	TEL	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 17:56	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:02	DA	TAL DEN

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-17

Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.6 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 21:06	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.5 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 16:35	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-18

Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			31.0 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 19:12	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:47	JM	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:19	TEL	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:08	JKH	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-627-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-18
Date Collected: 12/04/12 08:30
Matrix: Solid
Date Received: 12/05/12 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:03	DA	TAL DEN

Client Sample ID: SL-627-SA6-SB-1.0-2.0

Lab Sample ID: 280-36589-19
Date Collected: 12/04/12 08:55
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.6 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 21:31	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.1 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 17:00	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-627-SA6-SB-1.0-2.0

Lab Sample ID: 280-36589-20
Date Collected: 12/04/12 08:55
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.5 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 19:34	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:50	JM	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:31	TEL	TAL DEN
Total/NA	Prep	3050B			1.17 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:10	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/05/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:04	DA	TAL DEN

Client Sample ID: SL-627-SA6-SB-1.5

Lab Sample ID: 280-36589-21
Date Collected: 12/04/12 09:00
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.294 g	5 mL	150673	12/05/12 19:41	RLB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-627-SA6-SB-1.5

Lab Sample ID: 280-36589-21
Date Collected: 12/04/12 09:00
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			151627	12/11/12 15:21	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 12:01	DFB	TAL DEN

Client Sample ID: SL-628-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-22
Date Collected: 12/04/12 11:00
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.3 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 21:56	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.2 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 17:49	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-628-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-23
Date Collected: 12/04/12 11:00
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	8151A			51.4 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		5			151352	12/10/12 20:25	KJH	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 19:55	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			151827	12/13/12 02:16	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:52	JM	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:34	TEL	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:12	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:06	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-628-SA6-SB-4.0-5.0

Lab Sample ID: 280-36589-24

Date Collected: 12/04/12 11:20
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 22:21	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.8 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 18:38	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-628-SA6-SB-4.0-5.0

Lab Sample ID: 280-36589-25

Date Collected: 12/04/12 11:20
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	8151A			51.2 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		1			151352	12/10/12 20:47	KJH	TAL DEN
Total/NA	Prep	3546			31.8 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 20:16	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			151827	12/13/12 02:33	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:54	JM	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:37	TEL	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:15	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:10	DA	TAL DEN

Client Sample ID: SL-628-SA6-SB-4.5

Lab Sample ID: 280-36589-26

Date Collected: 12/04/12 11:25
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.934 g	5 mL	150673	12/05/12 19:41	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151627	12/11/12 15:51	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 12:01	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-27

Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.7 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 22:46	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.2 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 19:02	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-28

Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 82.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 20:38	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:56	JM	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:40	TEL	TAL DEN
Total/NA	Prep	3050B			1.19 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:17	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:11	DA	TAL DEN

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-29

Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 23:10	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			31.4 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 19:27	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-632-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-30

Date Collected: 12/04/12 09:55
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	8151A			50.2 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		5			151352	12/10/12 21:10	KJH	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 20:59	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			151827	12/13/12 02:50	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 17:59	JM	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:43	TEL	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:19	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:12	DA	TAL DEN

Client Sample ID: SL-629-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-31

Date Collected: 12/04/12 13:30
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.2 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/12/12 23:35	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.5 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 17:25	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-629-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-32

Date Collected: 12/04/12 13:30
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 21:21	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:01	JM	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:46	TEL	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-629-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-32

Date Collected: 12/04/12 13:30
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.11 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:22	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:13	DA	TAL DEN

Client Sample ID: SL-629-SA6-SB-2.5-3.5

Lab Sample ID: 280-36589-33

Date Collected: 12/04/12 14:05
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 00:00	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			31.0 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 19:51	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-629-SA6-SB-2.5-3.5

Lab Sample ID: 280-36589-34

Date Collected: 12/04/12 14:05
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			31.7 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 21:42	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:03	JM	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:48	TEL	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:24	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:15	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-629-SA6-SB-3.0

Lab Sample ID: 280-36589-35

Date Collected: 12/04/12 14:10
Date Received: 12/05/12 10:00

Matrix: Solid
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.926 g	5 mL	150673	12/05/12 19:41	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151627	12/11/12 16:20	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 12:01	DFB	TAL DEN

Client Sample ID: SL-630-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-36

Date Collected: 12/04/12 14:25
Date Received: 12/05/12 10:00

Matrix: Solid
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.6 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 00:25	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.1 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 20:15	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-630-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-37

Date Collected: 12/04/12 14:25
Date Received: 12/05/12 10:00

Matrix: Solid
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	8151A			52.1 g	10000 uL	150882	12/06/12 20:50	EJP	TAL DEN
Total/NA	Analysis	8151A		1			151352	12/10/12 21:32	KJH	TAL DEN
Total/NA	Prep	3546			31.3 g	10000 uL	151292	12/10/12 15:40	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 22:03	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			151827	12/13/12 03:06	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:06	JM	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:51	TEL	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:27	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:26	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-38

Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.4 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 00:50	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			31.5 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		10			152069	12/13/12 11:04	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-39

Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 22:25	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:13	JM	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 00:54	TEL	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:38	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:16	DA	TAL DEN

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-40

Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 01:15	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 21:04	MRB	TAL DEN
Total/NA	Prep	3060A			1.25 g	50 mL	73329	12/13/12 17:06	RW	TAL IRV
Total/NA	Analysis	7199		10			73119	12/14/12 03:21	MN	TAL IRV
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-546-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-41

Date Collected: 12/04/12 14:10
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 22:46	TDJ	TAL DEN
Total/NA	Prep	8315A Prep			5.07 g	1 mL	42544	12/10/12 13:09	RH	TAL NSH
Total/NA	Analysis	8315A		1			43667	12/12/12 18:07	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:15	JM	TAL DEN
Total/NA	Prep	3050B			1.12 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 01:06	TEL	TAL DEN
Total/NA	Prep	3050B			1.19 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:40	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:20	DA	TAL DEN

Client Sample ID: SL-546-SA6-SB-6.5-7.5

Lab Sample ID: 280-36589-42

Date Collected: 12/04/12 14:35
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.1 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 01:40	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			30.9 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		1			152069	12/12/12 21:28	MRB	TAL DEN
Total/NA	Prep	3060A			1.26 g	50 mL	73329	12/13/12 17:06	RW	TAL IRV
Total/NA	Analysis	7199		10			73119	12/14/12 03:33	MN	TAL IRV
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-546-SA6-SB-6.5-7.5

Lab Sample ID: 280-36589-43

Date Collected: 12/04/12 14:35
Matrix: Solid
Date Received: 12/05/12 10:00
Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 23:08	TDJ	TAL DEN
Total/NA	Prep	8315A Prep			5.04 g	1 mL	42544	12/10/12 13:09	RH	TAL NSH
Total/NA	Analysis	8315A		1			43667	12/12/12 19:24	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.50 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:17	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — Lab Sample ID: 280-36589-43

Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 01:09	TEL	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:43	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:23	DA	TAL DEN

Client Sample ID: SL-546-SA6-SB-7.0 — Lab Sample ID: 280-36589-44

Date Collected: 12/04/12 14:34 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.126 g	5 mL	150673	12/05/12 19:41	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151627	12/11/12 16:50	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 12:01	DFB	TAL DEN

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-45

Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.8 g	1000 uL	151130	12/07/12 17:30	NC	TAL DEN
Total/NA	Analysis	8270C SIM		1			151869	12/13/12 02:54	KGV	TAL DEN
Total/NA	Analysis	None		1			152263	12/14/12 12:45	JB	TAL DEN
Total/NA	Prep	3550C			31.0 g	1000 uL	151002	12/07/12 11:50	LC	TAL DEN
Total/NA	Analysis	8015B		20			152069	12/13/12 11:29	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151376	12/10/12 11:53	DFB	TAL DEN

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-46

Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	3546			31.9 g	10000 uL	151292	12/10/12 10:55	KS	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/12/12 23:29	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	150978	12/07/12 12:10	JM	TAL DEN
Total/NA	Analysis	7471B		1			151330	12/07/12 18:20	JM	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	151004	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6020A		1			151575	12/11/12 01:12	TEL	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-1

Client Sample ID: SL-549-SA6-SB-0.0-0.5

Lab Sample ID: 280-36589-46

Date Collected: 12/04/12 12:55

Matrix: Solid

Date Received: 12/05/12 10:00

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	151000	12/10/12 13:00	JA	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 18:45	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151103	12/07/12 14:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150670	12/06/12 18:40	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152145	12/13/12 20:25	DA	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

SSFL Phase 3 Chain of Custody

4.6 5.1 FP 125 12

CDM Smith

DateShipped: 12/4/2012
CarrierName: FedEx
AirbillNo: 794219854432

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121204-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120412	12/4/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.5	12/4/12 09:14	SO	None	3 - Encore	10 day																				X												
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.5	12/4/12 09:00	SO	None	3 - Encore	10 day																				X												
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.5	12/4/12 11:25	SO	None	3 - Encore	10 day																				X												
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012
CarrierName: FedEx
AirbillNo: 794219854432

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121204-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-3.0	12/4/12 14:10	SO	None	3 - Encore	10 day																				X												
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-536-SA5B-SB-0.0-0.5	7/17/12 09:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-7.0	12/4/12 14:34	SO	None	3 - Encore	10 day																				X												
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/04/2012	1600	[illegible]	12/5/12	1000						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012

CarrierName: FedEx

AirbillNo: 794219854432

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121204-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120412	12/4/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.5	12/4/12 09:14	SO	None	3 - Encore	10 day																				X												
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.5	12/4/12 09:00	SO	None	3 - Encore	10 day																				X												
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.5	12/4/12 11:25	SO	None	3 - Encore	10 day																				X												
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012

CarrierName: FedEx

AirbillNo: 794219854432

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121204-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-3.0	12/4/12 14:10	SO	None	3 - Encore	10 day																				X												
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-7.0	12/4/12 14:34	SO	None	3 - Encore	10 day																				X												
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36589-1

Login Number: 36589

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36589-1

Login Number: 36589
List Number: 1
Creator: Freitag, Kevin R

List Source: TestAmerica Irvine
List Creation: 12/07/12 10:54 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36589-1

Login Number: 36589
List Number: 1
Creator: Himelick, John

List Source: TestAmerica Nashville
List Creation: 12/08/12 03:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Wednesday, December 05, 2012 3:36 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36589, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty-five soil samples one trip blank received at the laboratories on 12/5/12.

The samples were received in acceptable condition at temperature of 4.6℃ and 5.1℃.

RECEIPT DISCREPANCIES:

1.) Chain of Custody 20121204-01 lists sample SL-536-SA5B-SB-0.0-0.5 collected on 7/17/2012 at 09:20 in error. A revised Chain of Custody was received via email on December 5, 2012. Both the original and revised Chains of Custody have been included.

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36589-2 to accommodate the extended TAT required for dioxin analysis.

3.) TestAmerica's Denver laboratory subcontracted the 7199 Hexavalent Chromium analysis to TestAmerica's Irvine laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088783]
Attachments: 6

SAMPLE DELIVERY GROUP

280-36589-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36589-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/31/2012 2:05:01 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 11
Sample Summary 12
Chronicle 13
Subcontract Data 17
Chain of Custody 75
Receipt Checklists 79

Job ID: 280-36589-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36589-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Twenty soil samples were received under Chain of Custody on December 5, 2012. The samples were received in good condition at temperatures of 4.6°C and 5.1°C.

Chain of Custody 20121204-01 lists sample SL-536-SA5B-SB-0.0-0.5 collected on 7/17/2012 at 09:20 in error. A revised Chain of Custody was received via email on December 5, 2012. Both the original and revised Chains of Custody have been included.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36589-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
C	Co-eluting isomer.
S	Ion suppression.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
*	Surrogate recovery is outside stated control limits.
X	See project narrative.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.33	J	5.8	0.17	0.1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.3	J	5.8	0.17	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.88	Q J	5.8	0.16	0.1	0.088	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	43		5.8	0.25	0.01	0.43	ng/kg	1	☼	1613B	Total
OCDD	500	S B	12	0.19	0.001	0.50	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.18	Q J	5.8	0.11	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.40	J	5.8	0.082	0.1	0.040	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.29	Q J	5.8	0.078	0.1	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.8		5.8	0.13	0.01	0.068	ng/kg	1	☼	1613B	Total
OCDF	27		12	0.17	0.001	0.027	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.16	Q J	5.9	0.19	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.56	Q J	5.9	0.13	0.1	0.056	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.46	C J	5.9	0.12	0.1	0.046	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	20		5.9	0.11	0.01	0.20	ng/kg	1	☼	1613B	Total
OCDD	200	S B	12	0.12	0.001	0.20	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	14	X	1.2	0.38	0.1	1.4	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	3.1	J	5.9	0.16	0.05	0.16	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	7.1		5.9	0.14	0.5	3.6	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	7.1	C	5.9	0.077	0.1	0.71	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	2.5	J	5.9	0.069	0.1	0.25	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	5.3	J	5.9	0.072	0.1	0.53	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.29	Q J	5.9	0.087	0.1	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	32		5.9	0.10	0.01	0.32	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	3.6	J	5.9	0.14	0.01	0.036	ng/kg	1	☼	1613B	Total
OCDF	39		12	0.12	0.001	0.039	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.98	Q J	5.9	0.24	0.5	0.49	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.5	J	5.9	0.22	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	5.6	J	5.9	0.23	0.1	0.56	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	3.3	C J	5.9	0.21	0.1	0.33	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	180		5.9	0.56	0.01	1.8	ng/kg	1	☼	1613B	Total
OCDD	2600	S B	12	0.65	0.001	2.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.87	Q J	1.2	0.34	0.1	0.087	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.67	J	5.9	0.21	0.05	0.034	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.5	J	5.9	0.19	0.5	0.75	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.1	C J	5.9	0.14	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.4	Q J	5.9	0.14	0.1	0.14	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.56	Q J	5.9	0.14	0.1	0.056	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.23	Q J	5.9	0.17	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	21		5.9	0.20	0.01	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.80	Q J	5.9	0.34	0.01	0.0080	ng/kg	1	☼	1613B	Total
OCDF	64		12	0.41	0.001	0.064	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-9

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-533-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.23	Q J	5.7	0.16	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.99	Q J	5.7	0.17	0.1	0.099	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.99	J	5.7	0.15	0.1	0.099	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	30		5.7	0.20	0.01	0.30	ng/kg	1	☼	1613B	Total
OCDD	390	S B	11	0.22	0.001	0.39	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.27	Q J	1.1	0.22	0.1	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.25	Q J	5.7	0.088	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.34	Q J	5.7	0.086	0.1	0.034	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	J	5.7	0.087	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.4	J	5.7	0.13	0.01	0.054	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.31	J	5.7	0.17	0.01	0.0031	ng/kg	1	☼	1613B	Total
OCDF	23		11	0.19	0.001	0.023	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.45	Q J	5.8	0.15	0.1	0.045	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.6	J	5.8	0.17	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.3	Q J	5.8	0.15	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	51		5.8	0.19	0.01	0.51	ng/kg	1	☼	1613B	Total
OCDD	640	S B	12	0.49	0.001	0.64	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.36	Q J	1.2	0.25	0.1	0.036	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.50	C J	5.8	0.10	0.1	0.050	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.41	J	5.8	0.094	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.0		5.8	0.14	0.01	0.060	ng/kg	1	☼	1613B	Total
OCDF	19		12	0.29	0.001	0.019	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.15	Q J	5.7	0.12	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.46	J	5.7	0.14	0.01	0.0046	ng/kg	1	☼	1613B	Total
OCDD	4.9	S B J	11	0.18	0.001	0.0049	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.83	Q J	5.6	0.19	0.5	0.42	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.6	Q J	5.6	0.18	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	5.6		5.6	0.20	0.1	0.56	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	3.4	C J	5.6	0.17	0.1	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	150		5.6	0.20	0.01	1.5	ng/kg	1	☼	1613B	Total
OCDD	1500	S B	11	0.56	0.001	1.5	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.46	Q J	1.1	0.26	0.1	0.046	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.29	Q J	5.6	0.15	0.5	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.0	Q J	5.6	0.12	0.1	0.10	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.7	Q J	5.6	0.11	0.1	0.17	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.49	Q J	5.6	0.11	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	30		5.6	0.16	0.01	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.4	Q J	5.6	0.22	0.01	0.024	ng/kg	1	☼	1613B	Total
OCDF	110		11	0.20	0.001	0.11	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-18

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.90	Q J	5.8	0.19	0.5	0.45	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.9	J	5.8	0.17	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	6.4		5.8	0.19	0.1	0.64	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	8.0		5.8	0.16	0.1	0.80	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	150		5.8	0.27	0.01	1.5	ng/kg	1	☼	1613B	Total
OCDD	1600	S B	12	0.21	0.001	1.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.41	Q J	1.2	0.23	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.18	Q J	5.8	0.17	0.05	0.0090	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.47	J	5.8	0.14	0.5	0.24	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.1	C J	5.8	0.11	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.7	Q J	5.8	0.11	0.1	0.17	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.81	Q J	5.8	0.11	0.1	0.081	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	34		5.8	0.16	0.01	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.3	J	5.8	0.19	0.01	0.023	ng/kg	1	☼	1613B	Total
OCDF	100		12	0.21	0.001	0.10	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — Lab Sample ID: 280-36589-20

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.2	J	5.6	0.14	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.0	J	5.6	0.11	0.1	0.20	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	8.6		5.6	0.12	0.1	0.86	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	4.8	J	5.6	0.11	0.1	0.48	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	210		5.6	0.22	0.01	2.1	ng/kg	1	☼	1613B	Total
OCDD	2600	S B	11	0.41	0.001	2.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.53	Q J	1.1	0.22	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.16	Q J	5.6	0.12	0.05	0.0080	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.42	J	5.6	0.11	0.5	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.6	J	5.6	0.087	0.1	0.26	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	4.2	Q J	5.6	0.086	0.1	0.42	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.80	Q J	5.6	0.089	0.1	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	38		5.6	0.12	0.01	0.38	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	3.3	J	5.6	0.14	0.01	0.033	ng/kg	1	☼	1613B	Total
OCDF	120		11	0.15	0.001	0.12	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-23

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.46	J	1.2	0.38	1	0.46	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.8	Q J	5.9	0.17	0.5	0.90	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	4.2	J	5.9	0.17	0.1	0.42	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	16		5.9	0.17	0.1	1.6	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	8.4		5.9	0.16	0.1	0.84	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	390		5.9	0.38	0.01	3.9	ng/kg	1	☼	1613B	Total
OCDD	4700	S B	12	0.41	0.001	4.7	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.1	Q J	1.2	0.21	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.32	Q J	5.9	0.14	0.05	0.016	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.88	J	5.9	0.12	0.5	0.44	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	5.1	Q J	5.9	0.089	0.1	0.51	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	5.8	Q J	5.9	0.089	0.1	0.58	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	1.7	J	5.9	0.088	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	72		5.9	0.13	0.01	0.72	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-628-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-23

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8,9-HpCDF	5.9	J	5.9	0.18	0.01	0.059	ng/kg	1	☼	1613B	Total
OCDF	330		12	0.25	0.001	0.33	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36589-25

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.31	Q J	5.2	0.11	0.1	0.031	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.4	J	5.2	0.11	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.86	J	5.2	0.10	0.1	0.086	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	43		5.2	0.16	0.01	0.43	ng/kg	1	☼	1613B	Total
OCDD	630	S B	10	0.29	0.001	0.63	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.46	Q J	5.2	0.070	0.1	0.046	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.45	Q J	5.2	0.074	0.1	0.045	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.18	Q J	5.2	0.069	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.8		5.2	0.10	0.01	0.068	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.63	J	5.2	0.17	0.01	0.0063	ng/kg	1	☼	1613B	Total
OCDF	9.8	J	10	0.17	0.001	0.0098	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-28

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.26	Q J	6.1	0.15	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.14	Q J	6.1	0.13	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.64	J	6.1	0.13	0.1	0.064	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.58	J	6.1	0.12	0.1	0.058	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	13		6.1	0.14	0.01	0.13	ng/kg	1	☼	1613B	Total
OCDD	130	S B	12	0.17	0.001	0.13	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.44	J	1.2	0.21	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.15	Q J	6.1	0.070	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.31	Q J	6.1	0.067	0.1	0.031	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.22	J	6.1	0.065	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.2	Q J	6.1	0.094	0.01	0.022	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.17	Q J	6.1	0.14	0.01	0.0017	ng/kg	1	☼	1613B	Total
OCDF	8.1	J	12	0.15	0.001	0.0081	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-30

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.33	Q J	5.9	0.11	0.1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.25	Q J	5.9	0.095	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	7.2		5.9	0.15	0.01	0.072	ng/kg	1	☼	1613B	Total
OCDD	71	S B	12	0.14	0.001	0.071	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.20	Q J	1.2	0.22	0.1	0.020	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.17	Q J	5.9	0.094	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.17	Q J	5.9	0.069	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.33	J	5.9	0.068	0.1	0.033	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.17	Q J	5.9	0.067	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.7	J	5.9	0.081	0.01	0.017	ng/kg	1	☼	1613B	Total
OCDF	9.0	J	12	0.12	0.001	0.0090	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-32

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-629-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36589-32

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.6	Q J	6.2	0.26	0.5	0.80	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	3.3	Q J	6.2	0.16	0.1	0.33	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	14		6.2	0.17	0.1	1.4	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	7.9		6.2	0.15	0.1	0.79	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	340		6.2	0.25	0.01	3.4	ng/kg	1	☼	1613B	Total
OCDD	3600	S B	12	0.26	0.001	3.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.97	Q J	1.2	0.32	0.1	0.097	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.57	J	6.2	0.20	0.05	0.029	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.2	J	6.2	0.17	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	7.7		6.2	0.11	0.1	0.77	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	6.7	Q	6.2	0.098	0.1	0.67	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	2.1	Q J	6.2	0.10	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	92		6.2	0.14	0.01	0.92	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	6.2	J	6.2	0.17	0.01	0.062	ng/kg	1	☼	1613B	Total
OCDF	330		12	0.28	0.001	0.33	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36589-34

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.39	Q J	5.3	0.15	0.5	0.20	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.79	J	5.3	0.10	0.1	0.079	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.9	J	5.3	0.11	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.6	Q J	5.3	0.10	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	92		5.3	0.14	0.01	0.92	ng/kg	1	☼	1613B	Total
OCDD	1300	S B	11	0.22	0.001	1.3	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.20	J	1.1	0.20	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.78	J	5.3	0.056	0.1	0.078	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.2	Q J	5.3	0.058	0.1	0.12	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.26	J	5.3	0.058	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	14		5.3	0.10	0.01	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.2	J	5.3	0.14	0.01	0.012	ng/kg	1	☼	1613B	Total
OCDF	55		11	0.16	0.001	0.055	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-37

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.44	Q J	6.1	0.26	0.5	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.41	Q J	6.1	0.17	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.4	Q J	6.1	0.19	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	Q J	6.1	0.17	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	31		6.1	0.25	0.01	0.31	ng/kg	1	☼	1613B	Total
OCDD	360	S B	12	0.31	0.001	0.36	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.33	Q J	1.2	0.35	0.1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.21	Q J	6.1	0.12	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.50	Q J	6.1	0.11	0.1	0.050	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.22	Q J	6.1	0.12	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.23	Q J	6.1	0.13	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.8	J	6.1	0.15	0.01	0.058	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.41	J	6.1	0.23	0.01	0.0041	ng/kg	1	☼	1613B	Total
OCDF	19		12	0.25	0.001	0.019	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-39

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	2.7	J	5.5	2.0	0.1	0.27	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.7	J	5.5	1.4	0.01	0.027	ng/kg	1	☼	1613B	Total
OCDD	40	S B	11	3.4	0.001	0.040	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.4	Q J	5.5	0.92	0.1	0.14	ng/kg	1	☼	1613B	Total
OCDF	9.0	Q J	11	3.4	0.001	0.0090	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-41

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	25	S B	11	16	0.001	0.025	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — Lab Sample ID: 280-36589-43

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.75	J	5.4	0.061	0.1	0.075	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.76	J	5.4	0.052	0.1	0.076	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.090	J	5.4	0.051	0.01	0.00090	ng/kg	1	☼	1613B	Total
OCDD	0.30	Q S B J	11	0.084	0.001	0.00030	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.30	Q J	5.4	0.036	0.1	0.030	ng/kg	1	☼	1613B	Total
OCDF	0.18	J	11	0.075	0.001	0.00018	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-46

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.29	J	5.5	0.21	0.01	0.0029	ng/kg	1	☼	1613B	Total
OCDD	1.9	Q S B J	11	0.55	0.001	0.0019	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36589-3	SL-529-SA6-SB-0.0-0.5	Solid	12/04/12 09:45	12/05/12 10:00
280-36589-5	SL-531-SA6-SB-0.0-0.5	Solid	12/04/12 08:10	12/05/12 10:00
280-36589-7	SL-532-SA6-SB-0.0-0.5	Solid	12/04/12 07:45	12/05/12 10:00
280-36589-9	SL-533-SA6-SB-0.0-0.5	Solid	12/04/12 08:40	12/05/12 10:00
280-36589-11	SL-534-SA6-SB-0.0-0.5	Solid	12/04/12 09:05	12/05/12 10:00
280-36589-13	SL-534-SA6-SB-3.0-4.0	Solid	12/04/12 09:15	12/05/12 10:00
280-36589-16	SL-626-SA6-SB-0.0-0.5	Solid	12/04/12 07:50	12/05/12 10:00
280-36589-18	SL-627-SA6-SB-0.0-0.5	Solid	12/04/12 08:30	12/05/12 10:00
280-36589-20	SL-627-SA6-SB-1.0-2.0	Solid	12/04/12 08:55	12/05/12 10:00
280-36589-23	SL-628-SA6-SB-0.0-0.5	Solid	12/04/12 11:00	12/05/12 10:00
280-36589-25	SL-628-SA6-SB-4.0-5.0	Solid	12/04/12 11:20	12/05/12 10:00
280-36589-28	SL-631-SA6-SB-0.0-0.5	Solid	12/04/12 10:20	12/05/12 10:00
280-36589-30	SL-632-SA6-SB-0.0-0.5	Solid	12/04/12 09:55	12/05/12 10:00
280-36589-32	SL-629-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-34	SL-629-SA6-SB-2.5-3.5	Solid	12/04/12 14:05	12/05/12 10:00
280-36589-37	SL-630-SA6-SB-0.0-0.5	Solid	12/04/12 14:25	12/05/12 10:00
280-36589-39	SL-536-SA6-SB-0.0-0.5	Solid	12/04/12 13:30	12/05/12 10:00
280-36589-41	SL-546-SA6-SB-0.0-0.5	Solid	12/04/12 14:10	12/05/12 10:00
280-36589-43	SL-546-SA6-SB-6.5-7.5	Solid	12/04/12 14:35	12/05/12 10:00
280-36589-46	SL-549-SA6-SB-0.0-0.5	Solid	12/04/12 12:55	12/05/12 10:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-529-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-3

Date Collected: 12/04/12 09:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 01:18	PMP	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2346021	12/11/12 09:41	TN	TAL KNX

Client Sample ID: SL-531-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-5

Date Collected: 12/04/12 08:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 02:18	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:42	TN	TAL KNX

Client Sample ID: SL-532-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-7

Date Collected: 12/04/12 07:45 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 03:17	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:42	TN	TAL KNX

Client Sample ID: SL-533-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-9

Date Collected: 12/04/12 08:40 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 04:17	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:42	TN	TAL KNX

Client Sample ID: SL-534-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-11

Date Collected: 12/04/12 09:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 86**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 05:17	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:43	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-534-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36589-13

Date Collected: 12/04/12 09:15 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 06:17	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:43	TN	TAL KNX

Client Sample ID: SL-626-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-16

Date Collected: 12/04/12 07:50 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 07:16	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:43	TN	TAL KNX

Client Sample ID: SL-627-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-18

Date Collected: 12/04/12 08:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 08:16	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:43	TN	TAL KNX

Client Sample ID: SL-627-SA6-SB-1.0-2.0 — Lab Sample ID: 280-36589-20

Date Collected: 12/04/12 08:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 12:17	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:44	TN	TAL KNX

Client Sample ID: SL-628-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-23

Date Collected: 12/04/12 11:00 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 84**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 13:17	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:44	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-628-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36589-25

Date Collected: 12/04/12 11:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 96**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 14:16	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:44	TN	TAL KNX

Client Sample ID: SL-631-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-28

Date Collected: 12/04/12 10:20 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 83**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 15:15	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:44	TN	TAL KNX

Client Sample ID: SL-632-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-30

Date Collected: 12/04/12 09:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 85**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 16:15	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:45	TN	TAL KNX

Client Sample ID: SL-629-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-32

Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 80**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 17:15	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:45	TN	TAL KNX

Client Sample ID: SL-629-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36589-34

Date Collected: 12/04/12 14:05 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 95.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 18:14	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:45	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36589-2

Client Sample ID: SL-630-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-37

Date Collected: 12/04/12 14:25 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 81**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/27/12 19:14	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:45	TN	TAL KNX

Client Sample ID: SL-536-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-39

Date Collected: 12/04/12 13:30 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 90.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/31/12 02:02	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:46	TN	TAL KNX

Client Sample ID: SL-546-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-41

Date Collected: 12/04/12 14:10 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/31/12 03:02	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:46	TN	TAL KNX

Client Sample ID: SL-546-SA6-SB-6.5-7.5 — Lab Sample ID: 280-36589-43

Date Collected: 12/04/12 14:35 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 93.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/28/12 18:00	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:46	TN	TAL KNX

Client Sample ID: SL-549-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36589-46

Date Collected: 12/04/12 12:55 — **Matrix: Solid**
Date Received: 12/05/12 10:00 — **Percent Solids: 91**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345018_P	12/10/12 15:00		TAL KNX
Total	Analysis	1613B		1			2345018	12/28/12 18:59	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346021	12/11/12 09:46	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L080402 Analytical Report 1

Sample Receipt Documentation 54

Total Number of Pages 57

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36589-2

CDM - SSFL Area IV

Lot #: H2L080402

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

December 31, 2012

ANALYTICAL METHODS SUMMARY

H2L080402

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L080402

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXJER	001	SL-529-SA6-SB-0.0-0.5	12/04/12	09:45
MXJET	002	SL-531-SA6-SB-0.0-0.5	12/04/12	08:10
MXJEV	003	SL-532-SA6-SB-0.0-0.5	12/04/12	07:45
MXJEW	004	SL-533-SA6-SB-0.0-0.5	12/04/12	08:40
MXJEX	005	SL-534-SA6-SB-0.0-0.5	12/04/12	09:05
MXJE0	006	SL-534-SA6-SB-3.0-4.0	12/04/12	09:15
MXJE1	007	SL-626-SA6-SB-0.0-0.5	12/04/12	07:50
MXJE2	008	SL-627-SA6-SB-0.0-0.5	12/04/12	08:30
MXJE3	009	SL-627-SA6-SB-1.0-2.0	12/04/12	08:55
MXJE4	010	SL-628-SA6-SB-0.0-0.5	12/04/12	11:00
MXJE5	011	SL-628-SA6-SB-4.0-5.0	12/04/12	11:20
MXJE6	012	SL-631-SA6-SB-0.0-0.5	12/04/12	10:20
MXJE7	013	SL-632-SA6-SB-0.0-0.5	12/04/12	09:55
MXJE8	014	SL-629-SA6-SB-0.0-0.5	12/04/12	13:30
MXJE9	015	SL-629-SA6-SB-2.5-3.5	12/04/12	14:05
MXJFA	016	SL-630-SA6-SB-0.0-0.5	12/04/12	14:25
MXJFC	017	SL-536-SA6-SB-0.0-0.5	12/04/12	13:30
MXJFD	018	SL-546-SA6-SB-0.0-0.5	12/04/12	14:10
MXJFE	019	SL-546-SA6-SB-6.5-7.5	12/04/12	14:35
MXJFF	020	SL-549-SA6-SB-0.0-0.5	12/04/12	12:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L080402

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For sample SL-546-SA-SB-0.0-0.5 the recovery of several internal standards were below the lower acceptance criteria. The minimum required signal-to-noise ratio was present. The low recoveries were caused by severe ion suppression. In addition, the estimated detection limit (EDL=1.4ng/kg) was above the minimum level (ML=1.1ng/kg). The sample matrix was the cause. The sample was run thru several additional clean ups to remove the majority of interferences which were causing extreme ion suppression.

For sample SL-536-SA6-SB-0.0-0.5 the estimated detection limit (EDL=1.3ng/kg) was above the minimum level (ML=1.1ng/kg). The sample matrix was the cause. The sample was run thru several additional clean ups to remove the majority of interferences which were causing extreme ion suppression.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column. The lower of the 2378-TCDF results are reported for each sample. The 2378-TCDF was reported from the primary Rtx-5 column for sample SL-531-SA6-SB-0.0-0.5. This column is not isomer specific for this 2378-TCDF. All results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X".

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:
>
> **Minimum Level**: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the

PROJECT NARRATIVE
H2L080402

sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.

PROJECT NARRATIVE
H2L080402

- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated

PROJECT NARRATIVE
H2L080402

population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-529-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 001	**Work Order #....:**	MXJER1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	14
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.39	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.8	0.16	1.0	0
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.33 J**	**5.8**	**0.17**	**0.1**	**0.033**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**1.3 J**	**5.8**	**0.17**	**0.1**	**0.13**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.88 Q J**	**5.8**	**0.16**	**0.1**	**0.088**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**43**	**5.8**	**0.25**	**0.01**	**0.43**
OCDD	**12/27/12**	**1**	**500 S B**	**12**	**0.19**	**0.0003**	**0.15**
2,3,7,8-TCDF	12/27/12	1	ND	1.2	0.26	0.1	0
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.8	0.12	0.03	0
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.18 Q J**	**5.8**	**0.11**	**0.3**	**0.054**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.40 J**	**5.8**	**0.082**	**0.1**	**0.040**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.29 Q J**	**5.8**	**0.078**	**0.1**	**0.029**
2,3,4,6,7,8-HxCDF	12/27/12	1	ND	5.8	0.081	0.1	0
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.8	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**6.8**	**5.8**	**0.13**	**0.01**	**0.068**
1,2,3,4,7,8,9-HpCDF	12/27/12	1	ND	5.8	0.18	0.01	0
OCDF	**12/27/12**	**1**	**27**	**12**	**0.17**	**0.0003**	**0.0081**
Total TEQ Concentration							**1.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	75	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	71	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-529-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-531-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 002	**Work Order #....:**	MXJET1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	15
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.30	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.16 Q J**	**5.9**	**0.19**	**1.0**	**0.16**
1,2,3,4,7,8-HxCDD	12/27/12	1	ND	5.9	0.13	0.1	0
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**0.56 Q J**	**5.9**	**0.13**	**0.1**	**0.056**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.46 C J**	**5.9**	**0.12**	**0.1**	**0.046**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**20**	**5.9**	**0.11**	**0.01**	**0.20**
OCDD	**12/27/12**	**1**	**200 S B**	**12**	**0.12**	**0.0003**	**0.060**
2,3,7,8-TCDF	**12/27/12**	**1**	**14 X**	**1.2**	**0.38**	**0.1**	**1.4**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**3.1 J**	**5.9**	**0.16**	**0.03**	**0.093**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**7.1**	**5.9**	**0.14**	**0.3**	**2.1**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**7.1 C**	**5.9**	**0.077**	**0.1**	**0.71**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**2.5 J**	**5.9**	**0.069**	**0.1**	**0.25**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**5.3 J**	**5.9**	**0.072**	**0.1**	**0.53**
1,2,3,7,8,9-HxCDF	**12/27/12**	**1**	**0.29 Q J**	**5.9**	**0.087**	**0.1**	**0.029**
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**32**	**5.9**	**0.10**	**0.01**	**0.32**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**3.6 J**	**5.9**	**0.14**	**0.01**	**0.036**
OCDF	**12/27/12**	**1**	**39**	**12**	**0.12**	**0.0003**	**0.012**
Total TEQ Concentration							6.0

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	81	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	114	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-531-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.
X	See project narrative.

TestAmerica Denver

Client Sample ID: SL-532-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 003	**Work Order #....:**	MXJEV1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	15
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.50	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.98 Q J**	**5.9**	**0.24**	**1.0**	**0.98**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**1.5 J**	**5.9**	**0.22**	**0.1**	**0.15**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**5.6 J**	**5.9**	**0.23**	**0.1**	**0.56**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**3.3 C J**	**5.9**	**0.21**	**0.1**	**0.33**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**180**	**5.9**	**0.56**	**0.01**	**1.8**
OCDD	**12/27/12**	**1**	**2600 S B**	**12**	**0.65**	**0.0003**	**0.78**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.87 Q J**	**1.2**	**0.34**	**0.1**	**0.087**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**0.67 J**	**5.9**	**0.21**	**0.03**	**0.020**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**1.5 J**	**5.9**	**0.19**	**0.3**	**0.45**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**2.1 C J**	**5.9**	**0.14**	**0.1**	**0.21**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**1.4 Q J**	**5.9**	**0.14**	**0.1**	**0.14**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.56 Q J**	**5.9**	**0.14**	**0.1**	**0.056**
1,2,3,7,8,9-HxCDF	**12/27/12**	**1**	**0.23 Q J**	**5.9**	**0.17**	**0.1**	**0.023**
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**21**	**5.9**	**0.20**	**0.01**	**0.21**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**0.80 Q J**	**5.9**	**0.34**	**0.01**	**0.0080**
OCDF	**12/27/12**	**1**	**64**	**12**	**0.41**	**0.0003**	**0.019**
Total TEQ Concentration							**5.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	59	(25 - 164)
13C-1,2,3,7,8-PeCDD	70	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	61	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	53	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	63	(23 - 140)
13C-OCDD	29	(17 - 157)
13C-2,3,7,8-TCDF	55	(24 - 169)
13C-1,2,3,7,8-PeCDF	60	(24 - 185)
13C-2,3,4,7,8-PeCDF	64	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	50	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	47	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	53	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	57	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	48	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	56	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	72	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-532-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-533-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 004	**Work Order #....:**	MXJEW1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	13
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.1	0.31	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.7	0.19	1.0	0
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.23 Q J**	**5.7**	**0.16**	**0.1**	**0.023**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**0.99 Q J**	**5.7**	**0.17**	**0.1**	**0.099**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.99 J**	**5.7**	**0.15**	**0.1**	**0.099**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**30**	**5.7**	**0.20**	**0.01**	**0.30**
OCDD	**12/27/12**	**1**	**390 S B**	**11**	**0.22**	**0.0003**	**0.12**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.27 Q J**	**1.1**	**0.22**	**0.1**	**0.027**
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.7	0.14	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	5.7	0.13	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.25 Q J**	**5.7**	**0.088**	**0.1**	**0.025**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.34 Q J**	**5.7**	**0.086**	**0.1**	**0.034**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.23 J**	**5.7**	**0.087**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.7	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**5.4 J**	**5.7**	**0.13**	**0.01**	**0.054**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**0.31 J**	**5.7**	**0.17**	**0.01**	**0.0031**
OCDF	**12/27/12**	**1**	**23**	**11**	**0.19**	**0.0003**	**0.0069**
Total TEQ Concentration							**0.81**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(25 - 164)
13C-1,2,3,7,8-PeCDD	98	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	59	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	69	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	79	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	100	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-533-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-534-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 005	**Work Order #....:**	MXJEX1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	14
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.31	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.8	0.18	1.0	0
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.45 Q J**	**5.8**	**0.15**	**0.1**	**0.045**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**1.6 J**	**5.8**	**0.17**	**0.1**	**0.16**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**1.3 Q J**	**5.8**	**0.15**	**0.1**	**0.13**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**51**	**5.8**	**0.19**	**0.01**	**0.51**
OCDD	**12/27/12**	**1**	**640 S B**	**12**	**0.49**	**0.0003**	**0.19**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.36 Q J**	**1.2**	**0.25**	**0.1**	**0.036**
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.8	0.13	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	5.8	0.12	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.50 C J**	**5.8**	**0.10**	**0.1**	**0.050**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.41 J**	**5.8**	**0.094**	**0.1**	**0.041**
2,3,4,6,7,8-HxCDF	12/27/12	1	ND	5.8	0.093	0.1	0
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.8	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**6.0**	**5.8**	**0.14**	**0.01**	**0.060**
1,2,3,4,7,8,9-HpCDF	12/27/12	1	ND	5.8	0.17	0.01	0
OCDF	**12/27/12**	**1**	**19**	**12**	**0.29**	**0.0003**	**0.0057**
Total TEQ Concentration							**1.2**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	46	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	66	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	97	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-534-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-534-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 006	**Work Order #....:**	MXJE01AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	12
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.1	0.28	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.7	0.16	1.0	0
1,2,3,4,7,8-HxCDD	12/27/12	1	ND	5.7	0.13	0.1	0
1,2,3,6,7,8-HxCDD	12/27/12	1	ND	5.7	0.14	0.1	0
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.15 Q J**	**5.7**	**0.12**	**0.1**	**0.015**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**0.46 J**	**5.7**	**0.14**	**0.01**	**0.0046**
OCDD	**12/27/12**	**1**	**4.9 S B J**	**11**	**0.18**	**0.0003**	**0.0015**
2,3,7,8-TCDF	12/27/12	1	ND	1.1	0.16	0.1	0
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.7	0.097	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	5.7	0.084	0.3	0
1,2,3,4,7,8-HxCDF	12/27/12	1	ND	5.7	0.062	0.1	0
1,2,3,6,7,8-HxCDF	12/27/12	1	ND	5.7	0.058	0.1	0
2,3,4,6,7,8-HxCDF	12/27/12	1	ND	5.7	0.057	0.1	0
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.7	0.069	0.1	0
1,2,3,4,6,7,8-HpCDF	12/27/12	1	ND	5.7	0.098	0.01	0
1,2,3,4,7,8,9-HpCDF	12/27/12	1	ND	5.7	0.12	0.01	0
OCDF	12/27/12	1	ND	11	0.13	0.0003	0
Total TEQ Concentration							**0.021**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(25 - 164)
13C-1,2,3,7,8-PeCDD	99	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	73	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	91	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	86	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-534-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	103	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-626-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 007	**Work Order #....:**	MXJE11AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	10
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.1	0.48	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.83 Q J**	**5.6**	**0.19**	**1.0**	**0.83**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**1.6 Q J**	**5.6**	**0.18**	**0.1**	**0.16**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**5.6**	**5.6**	**0.20**	**0.1**	**0.56**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**3.4 C J**	**5.6**	**0.17**	**0.1**	**0.34**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**150**	**5.6**	**0.20**	**0.01**	**1.5**
OCDD	**12/27/12**	**1**	**1500 S B**	**11**	**0.56**	**0.0003**	**0.45**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.46 Q J**	**1.1**	**0.26**	**0.1**	**0.046**
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.6	0.17	0.03	0
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.29 Q J**	**5.6**	**0.15**	**0.3**	**0.087**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**1.0 Q J**	**5.6**	**0.12**	**0.1**	**0.10**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**1.7 Q J**	**5.6**	**0.11**	**0.1**	**0.17**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.49 Q J**	**5.6**	**0.11**	**0.1**	**0.049**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.6	0.13	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**30**	**5.6**	**0.16**	**0.01**	**0.30**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**2.4 Q J**	**5.6**	**0.22**	**0.01**	**0.024**
OCDF	**12/27/12**	**1**	**110**	**11**	**0.20**	**0.0003**	**0.033**
Total TEQ Concentration							**4.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	68	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	69	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	71	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-626-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-627-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 008	**Work Order #....:**	MXJE21AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	13
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.36	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.90 Q J**	**5.8**	**0.19**	**1.0**	**0.90**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**2.9 J**	**5.8**	**0.17**	**0.1**	**0.29**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**6.4**	**5.8**	**0.19**	**0.1**	**0.64**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**8.0**	**5.8**	**0.16**	**0.1**	**0.80**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**150**	**5.8**	**0.27**	**0.01**	**1.5**
OCDD	**12/27/12**	**1**	**1600 S B**	**12**	**0.21**	**0.0003**	**0.48**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.41 Q J**	**1.2**	**0.23**	**0.1**	**0.041**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**0.18 Q J**	**5.8**	**0.17**	**0.03**	**0.0054**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.47 J**	**5.8**	**0.14**	**0.3**	**0.14**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**2.1 C J**	**5.8**	**0.11**	**0.1**	**0.21**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**1.7 Q J**	**5.8**	**0.11**	**0.1**	**0.17**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.81 Q J**	**5.8**	**0.11**	**0.1**	**0.081**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.8	0.12	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**34**	**5.8**	**0.16**	**0.01**	**0.34**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**2.3 J**	**5.8**	**0.19**	**0.01**	**0.023**
OCDF	**12/27/12**	**1**	**100**	**12**	**0.21**	**0.0003**	**0.030**
Total TEQ Concentration							**5.7**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	75	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	50	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	62	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	69	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	75	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-627-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-627-SA6-SB-1.0-2.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 009	**Work Order #....:**	MXJE31AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	11
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.1	0.34	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**1.2 J**	**5.6**	**0.14**	**1.0**	**1.2**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**2.0 J**	**5.6**	**0.11**	**0.1**	**0.20**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**8.6**	**5.6**	**0.12**	**0.1**	**0.86**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**4.8 J**	**5.6**	**0.11**	**0.1**	**0.48**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**210**	**5.6**	**0.22**	**0.01**	**2.1**
OCDD	**12/27/12**	**1**	**2600 S B**	**11**	**0.41**	**0.0003**	**0.78**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.53 Q J**	**1.1**	**0.22**	**0.1**	**0.053**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**0.16 Q J**	**5.6**	**0.12**	**0.03**	**0.0048**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.42 J**	**5.6**	**0.11**	**0.3**	**0.13**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**2.6 J**	**5.6**	**0.087**	**0.1**	**0.26**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**4.2 Q J**	**5.6**	**0.086**	**0.1**	**0.42**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.80 Q J**	**5.6**	**0.089**	**0.1**	**0.080**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.6	0.10	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**38**	**5.6**	**0.12**	**0.01**	**0.38**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**3.3 J**	**5.6**	**0.14**	**0.01**	**0.033**
OCDF	**12/27/12**	**1**	**120**	**11**	**0.15**	**0.0003**	**0.036**
Total TEQ Concentration							**7.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	72	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	66	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	54	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	65	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	62	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	67	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	103	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-627-SA6-SB-1.0-2.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-628-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 010	**Work Order #....:**	MXJE41AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	16
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**12/27/12**	**1**	**0.46 J**	**1.2**	**0.38**	**1.0**	**0.46**
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**1.8 Q J**	**5.9**	**0.17**	**1.0**	**1.8**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**4.2 J**	**5.9**	**0.17**	**0.1**	**0.42**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**16**	**5.9**	**0.17**	**0.1**	**1.6**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**8.4**	**5.9**	**0.16**	**0.1**	**0.84**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**390**	**5.9**	**0.38**	**0.01**	**3.9**
OCDD	**12/27/12**	**1**	**4700 S B**	**12**	**0.41**	**0.0003**	**1.4**
2,3,7,8-TCDF	**12/27/12**	**1**	**1.1 Q J**	**1.2**	**0.21**	**0.1**	**0.11**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**0.32 Q J**	**5.9**	**0.14**	**0.03**	**0.0096**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.88 J**	**5.9**	**0.12**	**0.3**	**0.26**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**5.1 Q J**	**5.9**	**0.089**	**0.1**	**0.51**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**5.8 Q J**	**5.9**	**0.089**	**0.1**	**0.58**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**1.7 J**	**5.9**	**0.088**	**0.1**	**0.17**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.9	0.10	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**72**	**5.9**	**0.13**	**0.01**	**0.72**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**5.9 J**	**5.9**	**0.18**	**0.01**	**0.059**
OCDF	**12/27/12**	**1**	**330**	**12**	**0.25**	**0.0003**	**0.099**
Total TEQ Concentration							13

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	100	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	46	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	87	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	106	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-628-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-628-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 011	**Work Order #....:**	MXJE51AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	4.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.0	0.32	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.2	0.16	1.0	0
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.31 Q J**	**5.2**	**0.11**	**0.1**	**0.031**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**1.4 J**	**5.2**	**0.11**	**0.1**	**0.14**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.86 J**	**5.2**	**0.10**	**0.1**	**0.086**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**43**	**5.2**	**0.16**	**0.01**	**0.43**
OCDD	**12/27/12**	**1**	**630 S B**	**10**	**0.29**	**0.0003**	**0.19**
2,3,7,8-TCDF	12/27/12	1	ND	1.0	0.23	0.1	0
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.2	0.11	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	5.2	0.096	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.46 Q J**	**5.2**	**0.070**	**0.1**	**0.046**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.45 Q J**	**5.2**	**0.074**	**0.1**	**0.045**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.18 Q J**	**5.2**	**0.069**	**0.1**	**0.018**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.2	0.087	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**6.8**	**5.2**	**0.10**	**0.01**	**0.068**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**0.63 J**	**5.2**	**0.17**	**0.01**	**0.0063**
OCDF	**12/27/12**	**1**	**9.8 J**	**10**	**0.17**	**0.0003**	**0.0029**
Total TEQ Concentration							**1.1**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	63	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	91	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	64	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	100	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-628-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-631-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 012	**Work Order #....:**	MXJE61AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	17
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.35	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.26 Q J**	**6.1**	**0.15**	**1.0**	**0.26**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.14 Q J**	**6.1**	**0.13**	**0.1**	**0.014**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**0.64 J**	**6.1**	**0.13**	**0.1**	**0.064**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.58 J**	**6.1**	**0.12**	**0.1**	**0.058**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**13**	**6.1**	**0.14**	**0.01**	**0.13**
OCDD	**12/27/12**	**1**	**130 S B**	**12**	**0.17**	**0.0003**	**0.039**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.44 J**	**1.2**	**0.21**	**0.1**	**0.044**
1,2,3,7,8-PeCDF	12/27/12	1	ND	6.1	0.12	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	6.1	0.098	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.15 Q J**	**6.1**	**0.070**	**0.1**	**0.015**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.31 Q J**	**6.1**	**0.067**	**0.1**	**0.031**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.22 J**	**6.1**	**0.065**	**0.1**	**0.022**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	6.1	0.079	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**2.2 Q J**	**6.1**	**0.094**	**0.01**	**0.022**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**0.17 Q J**	**6.1**	**0.14**	**0.01**	**0.0017**
OCDF	**12/27/12**	**1**	**8.1 J**	**12**	**0.15**	**0.0003**	**0.0024**
Total TEQ Concentration							**0.70**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	68	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	98	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	89	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	95	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-631-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-632-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 013	**Work Order #....:**	MXJE71AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	15
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.36	1.0	0
1,2,3,7,8-PeCDD	12/27/12	1	ND	5.9	0.15	1.0	0
1,2,3,4,7,8-HxCDD	12/27/12	1	ND	5.9	0.099	0.1	0
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**0.33 Q J**	**5.9**	**0.11**	**0.1**	**0.033**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**0.25 Q J**	**5.9**	**0.095**	**0.1**	**0.025**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**7.2**	**5.9**	**0.15**	**0.01**	**0.072**
OCDD	**12/27/12**	**1**	**71 S B**	**12**	**0.14**	**0.0003**	**0.021**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.20 Q J**	**1.2**	**0.22**	**0.1**	**0.020**
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.9	0.11	0.03	0
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**0.17 Q J**	**5.9**	**0.094**	**0.3**	**0.051**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.17 Q J**	**5.9**	**0.069**	**0.1**	**0.017**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.33 J**	**5.9**	**0.068**	**0.1**	**0.033**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.17 Q J**	**5.9**	**0.067**	**0.1**	**0.017**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.9	0.079	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**1.7 J**	**5.9**	**0.081**	**0.01**	**0.017**
1,2,3,4,7,8,9-HpCDF	12/27/12	1	ND	5.9	0.13	0.01	0
OCDF	**12/27/12**	**1**	**9.0 J**	**12**	**0.12**	**0.0003**	**0.0027**
Total TEQ Concentration							**0.31**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	103	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	63	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	100	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	90	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	80	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	93	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	99	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-632-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-629-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 014	**Work Order #....:**	MXJE81AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	20
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.48	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**1.6 Q J**	**6.2**	**0.26**	**1.0**	**1.6**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**3.3 Q J**	**6.2**	**0.16**	**0.1**	**0.33**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**14**	**6.2**	**0.17**	**0.1**	**1.4**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**7.9**	**6.2**	**0.15**	**0.1**	**0.79**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**340**	**6.2**	**0.25**	**0.01**	**3.4**
OCDD	**12/27/12**	**1**	**3600 S B**	**12**	**0.26**	**0.0003**	**1.1**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.97 Q J**	**1.2**	**0.32**	**0.1**	**0.097**
1,2,3,7,8-PeCDF	**12/27/12**	**1**	**0.57 J**	**6.2**	**0.20**	**0.03**	**0.017**
2,3,4,7,8-PeCDF	**12/27/12**	**1**	**1.2 J**	**6.2**	**0.17**	**0.3**	**0.36**
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**7.7**	**6.2**	**0.11**	**0.1**	**0.77**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**6.7 Q**	**6.2**	**0.098**	**0.1**	**0.67**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**2.1 Q J**	**6.2**	**0.10**	**0.1**	**0.21**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	6.2	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**92**	**6.2**	**0.14**	**0.01**	**0.92**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**6.2 J**	**6.2**	**0.17**	**0.01**	**0.062**
OCDF	**12/27/12**	**1**	**330**	**12**	**0.28**	**0.0003**	**0.099**
Total TEQ Concentration							**12**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	56	(17 - 157)
13C-2,3,7,8-TCDF	87	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	87	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	110	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-629-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-629-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 015	**Work Order #....:**	MXJE91AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	4.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.1	0.34	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.39 Q J**	**5.3**	**0.15**	**1.0**	**0.39**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.79 J**	**5.3**	**0.10**	**0.1**	**0.079**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**2.9 J**	**5.3**	**0.11**	**0.1**	**0.29**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**1.6 Q J**	**5.3**	**0.10**	**0.1**	**0.16**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**92**	**5.3**	**0.14**	**0.01**	**0.92**
OCDD	**12/27/12**	**1**	**1300 S B**	**11**	**0.22**	**0.0003**	**0.39**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.20 J**	**1.1**	**0.20**	**0.1**	**0.020**
1,2,3,7,8-PeCDF	12/27/12	1	ND	5.3	0.10	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	5.3	0.094	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.78 J**	**5.3**	**0.056**	**0.1**	**0.078**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**1.2 Q J**	**5.3**	**0.058**	**0.1**	**0.12**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.26 J**	**5.3**	**0.058**	**0.1**	**0.026**
1,2,3,7,8,9-HxCDF	12/27/12	1	ND	5.3	0.070	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**14**	**5.3**	**0.10**	**0.01**	**0.14**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**1.2 J**	**5.3**	**0.14**	**0.01**	**0.012**
OCDF	**12/27/12**	**1**	**55**	**11**	**0.16**	**0.0003**	**0.016**
Total TEQ Concentration							**2.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	99	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	88	(23 - 140)
13C-OCDD	56	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	96	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	89	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	93	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	97	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-629-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-630-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 016	**Work Order #....:**	MXJFA1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	19
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/27/12	1	ND	1.2	0.54	1.0	0
1,2,3,7,8-PeCDD	**12/27/12**	**1**	**0.44 Q J**	**6.1**	**0.26**	**1.0**	**0.44**
1,2,3,4,7,8-HxCDD	**12/27/12**	**1**	**0.41 Q J**	**6.1**	**0.17**	**0.1**	**0.041**
1,2,3,6,7,8-HxCDD	**12/27/12**	**1**	**1.4 Q J**	**6.1**	**0.19**	**0.1**	**0.14**
1,2,3,7,8,9-HxCDD	**12/27/12**	**1**	**1.1 Q J**	**6.1**	**0.17**	**0.1**	**0.11**
1,2,3,4,6,7,8-HpCDD	**12/27/12**	**1**	**31**	**6.1**	**0.25**	**0.01**	**0.31**
OCDD	**12/27/12**	**1**	**360 S B**	**12**	**0.31**	**0.0003**	**0.11**
2,3,7,8-TCDF	**12/27/12**	**1**	**0.33 Q J**	**1.2**	**0.35**	**0.1**	**0.033**
1,2,3,7,8-PeCDF	12/27/12	1	ND	6.1	0.18	0.03	0
2,3,4,7,8-PeCDF	12/27/12	1	ND	6.1	0.15	0.3	0
1,2,3,4,7,8-HxCDF	**12/27/12**	**1**	**0.21 Q J**	**6.1**	**0.12**	**0.1**	**0.021**
1,2,3,6,7,8-HxCDF	**12/27/12**	**1**	**0.50 Q J**	**6.1**	**0.11**	**0.1**	**0.050**
2,3,4,6,7,8-HxCDF	**12/27/12**	**1**	**0.22 Q J**	**6.1**	**0.12**	**0.1**	**0.022**
1,2,3,7,8,9-HxCDF	**12/27/12**	**1**	**0.23 Q J**	**6.1**	**0.13**	**0.1**	**0.023**
1,2,3,4,6,7,8-HpCDF	**12/27/12**	**1**	**5.8 J**	**6.1**	**0.15**	**0.01**	**0.058**
1,2,3,4,7,8,9-HpCDF	**12/27/12**	**1**	**0.41 J**	**6.1**	**0.23**	**0.01**	**0.0041**
OCDF	**12/27/12**	**1**	**19**	**12**	**0.25**	**0.0003**	**0.0057**
Total TEQ Concentration							**1.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	70	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	66	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	53	(17 - 157)
13C-2,3,7,8-TCDF	71	(24 - 169)
13C-1,2,3,7,8-PeCDF	75	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	66	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	70	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	83	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-630-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-536-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 017	**Work Order #....:**	MXJFC1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	9.6
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	1.3	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.5	1.4	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.5	2.0	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.5	2.3	0.1	0
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**2.7 J**	**5.5**	**2.0**	**0.1**	**0.27**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**2.7 J**	**5.5**	**1.4**	**0.01**	**0.027**
OCDD	**12/31/12**	**1**	**40 S B**	**11**	**3.4**	**0.0003**	**0.012**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	0.91	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.5	0.58	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.5	0.72	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.5	0.94	0.1	0
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**1.4 Q J**	**5.5**	**0.92**	**0.1**	**0.14**
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.5	1.1	0.1	0
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.5	1.1	0.1	0
1,2,3,4,6,7,8-HpCDF	12/31/12	1	ND	5.5	0.92	0.01	0
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.5	1.3	0.01	0
OCDF	**12/31/12**	**1**	**9.0 Q J**	**11**	**3.4**	**0.0003**	**0.0027**
Total TEQ Concentration							**0.45**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	65	(25 - 164)
13C-1,2,3,7,8-PeCDD	31	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	63	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	50	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	56	(23 - 140)
13C-OCDD	18	(17 - 157)
13C-2,3,7,8-TCDF	61	(24 - 169)
13C-1,2,3,7,8-PeCDF	45	(24 - 185)
13C-2,3,4,7,8-PeCDF	33	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	59	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	60	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	57	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	73	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-536-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-546-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 018	**Work Order #....:**	MXJFD1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	6.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	1.4	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.4	3.0	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.4	4.9	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.4	5.5	0.1	0
1,2,3,7,8,9-HxCDD	12/31/12	1	ND	5.4	4.8	0.1	0
1,2,3,4,6,7,8-HpCDD	12/31/12	1	ND	5.4	3.3	0.01	0
OCDD	**12/31/12**	**1**	**25 S B**	**11**	**16**	**0.0003**	**0.0075**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	1.0	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.4	0.77	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.4	1.0	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.4	2.5	0.1	0
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.4	2.3	0.1	0
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.4	2.7	0.1	0
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.4	2.5	0.1	0
1,2,3,4,6,7,8-HpCDF	12/31/12	1	ND	5.4	1.9	0.01	0
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.4	2.4	0.01	0
OCDF	12/31/12	1	ND	11	15	0.0003	0
Total TEQ Concentration							**0.0075**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	62	(25 - 164)
13C-1,2,3,7,8-PeCDD	11 *	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	50	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	58	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	74	(23 - 140)
13C-OCDD	12 *	(17 - 157)
13C-2,3,7,8-TCDF	62	(24 - 169)
13C-1,2,3,7,8-PeCDF	27	(24 - 185)
13C-2,3,4,7,8-PeCDF	18 *	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	69	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	101	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	113	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	77	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-546-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	79	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-546-SA6-SB-6.5-7.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 019	**Work Order #....:**	MXJFE1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	6.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.1	0.17	1.0	0
1,2,3,7,8-PeCDD	12/28/12	1	ND	5.4	0.070	1.0	0
1,2,3,4,7,8-HxCDD	12/28/12	1	ND	5.4	0.053	0.1	0
1,2,3,6,7,8-HxCDD	**12/28/12**	**1**	**0.75 J**	**5.4**	**0.061**	**0.1**	**0.075**
1,2,3,7,8,9-HxCDD	**12/28/12**	**1**	**0.76 J**	**5.4**	**0.052**	**0.1**	**0.076**
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**0.090 J**	**5.4**	**0.051**	**0.01**	**0.00090**
OCDD	**12/28/12**	**1**	**0.30 Q S B J**	**11**	**0.084**	**0.0003**	**0.000090**
2,3,7,8-TCDF	12/28/12	1	ND	1.1	0.11	0.1	0
1,2,3,7,8-PeCDF	12/28/12	1	ND	5.4	0.050	0.03	0
2,3,4,7,8-PeCDF	12/28/12	1	ND	5.4	0.047	0.3	0
1,2,3,4,7,8-HxCDF	12/28/12	1	ND	5.4	0.034	0.1	0
1,2,3,6,7,8-HxCDF	**12/28/12**	**1**	**0.30 Q J**	**5.4**	**0.036**	**0.1**	**0.030**
2,3,4,6,7,8-HxCDF	12/28/12	1	ND	5.4	0.037	0.1	0
1,2,3,7,8,9-HxCDF	12/28/12	1	ND	5.4	0.039	0.1	0
1,2,3,4,6,7,8-HpCDF	12/28/12	1	ND	5.4	0.046	0.01	0
1,2,3,4,7,8,9-HpCDF	12/28/12	1	ND	5.4	0.055	0.01	0
OCDF	**12/28/12**	**1**	**0.18 J**	**11**	**0.075**	**0.0003**	**0.000054**
Total TEQ Concentration							**0.18**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	65	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	99	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-546-SA6-SB-6.5-7.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-549-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080402 - 020	**Work Order #....:**	MXJFF1AC	**Matrix.....:**	SO
Date Sampled....:	12/04/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345018			**Percent Moisture:**	9.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.1	0.36	1.0	0
1,2,3,7,8-PeCDD	12/28/12	1	ND	5.5	0.15	1.0	0
1,2,3,4,7,8-HxCDD	12/28/12	1	ND	5.5	0.15	0.1	0
1,2,3,6,7,8-HxCDD	12/28/12	1	ND	5.5	0.17	0.1	0
1,2,3,7,8,9-HxCDD	12/28/12	1	ND	5.5	0.15	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**0.29 J**	**5.5**	**0.21**	**0.01**	**0.0029**
OCDD	**12/28/12**	**1**	**1.9 Q S B J**	**11**	**0.55**	**0.0003**	**0.00057**
2,3,7,8-TCDF	12/28/12	1	ND	1.1	0.22	0.1	0
1,2,3,7,8-PeCDF	12/28/12	1	ND	5.5	0.11	0.03	0
2,3,4,7,8-PeCDF	12/28/12	1	ND	5.5	0.10	0.3	0
1,2,3,4,7,8-HxCDF	12/28/12	1	ND	5.5	0.091	0.1	0
1,2,3,6,7,8-HxCDF	12/28/12	1	ND	5.5	0.090	0.1	0
2,3,4,6,7,8-HxCDF	12/28/12	1	ND	5.5	0.10	0.1	0
1,2,3,7,8,9-HxCDF	12/28/12	1	ND	5.5	0.12	0.1	0
1,2,3,4,6,7,8-HpCDF	12/28/12	1	ND	5.5	0.18	0.01	0
1,2,3,4,7,8,9-HpCDF	12/28/12	1	ND	5.5	0.17	0.01	0
OCDF	12/28/12	1	ND	11	0.56	0.0003	0
Total TEQ Concentration							**0.0035**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	62	(25 - 164)
13C-1,2,3,7,8-PeCDD	77	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	77	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	54	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	43	(23 - 140)
13C-OCDD	17	(17 - 157)
13C-2,3,7,8-TCDF	60	(24 - 169)
13C-1,2,3,7,8-PeCDF	70	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	59	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	45	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	49	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-549-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	76	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 018B	**Work Order #....:**	MXJGV1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/26/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345018				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.35	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.13	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.15	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.15	ng/kg
OCDD	**0.41**	**S J**	**10**	**0.15**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.26	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.12	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.11	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.071	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.071	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.072	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.081	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.10	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.12	ng/kg
OCDF	ND		10	0.16	ng/kg

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	25 - 164
13C-1,2,3,7,8-PeCDD	77	25 - 181
13C-1,2,3,4,7,8-HxCDD	64	32 - 141
13C-1,2,3,6,7,8-HxCDD	62	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	68	23 - 140
13C-OCDD	61	17 - 157
13C-2,3,7,8-TCDF	63	24 - 169
13C-1,2,3,7,8-PeCDF	69	24 - 185
13C-2,3,4,7,8-PeCDF	73	21 - 178
13C-1,2,3,4,7,8-HxCDF	60	26 - 152
13C-1,2,3,6,7,8-HxCDF	54	26 - 123
13C-2,3,4,6,7,8-HxCDF	59	28 - 136
13C-1,2,3,7,8,9-HxCDF	67	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	56	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	66	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 018B	**Work Order #....:**	MXJGV1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/26/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345018				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	35 - 197

QUALIFIERS

J Estimated Result.

S Ion suppression.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L080402	**Work Order # ...:**	MXJGV1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L100000 - 018				
Prep Date .....:	12/10/12	**Analysis Date ..:**	12/26/12		
Prep Batch # ...:	2345018				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M1A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.6**	**ng/kg**	**108**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**113**	**ng/kg**	**113**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**104**	**ng/kg**	**104**		**(70 - 140)**
OCDD	**200**	**208**	**ng/kg**	**104**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**21.2**	**ng/kg**	**106**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**102**	**ng/kg**	**102**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**106**	**ng/kg**	**106**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**108**	**ng/kg**	**108**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**107**	**ng/kg**	**107**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**106**	**ng/kg**	**106**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**104**	**ng/kg**	**104**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**104**	**ng/kg**	**104**		**(78 - 138)**
OCDF	**200**	**194**	**ng/kg**	**97**		**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	56	(20 - 175)
13C-1,2,3,7,8-PeCDD	64	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	55	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	53	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	57	(26 - 166)
13C-OCDD	56	(13 - 199)
13C-2,3,7,8-TCDF	51	(22 - 152)
13C-1,2,3,7,8-PeCDF	58	(21 - 192)
13C-2,3,4,7,8-PeCDF	58	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	51	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	48	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	53	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	56	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	49	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	54	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	69	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L080402

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162428.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36589-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/14/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-529-SA6-SB-0.0-0.5 (280-36589-3)	12/4/12	09:45 Pacific		Solid			X	X		TEQs required
SL-531-SA6-SB-0.0-0.5 (280-36589-5)	12/4/12	08:10 Pacific		Solid			X	X		TEQs required
SL-532-SA6-SB-0.0-0.5 (280-36589-7)	12/4/12	07:45 Pacific		Solid			X	X		TEQs required
SL-533-SA6-SB-0.0-0.5 (280-36589-9)	12/4/12	08:40 Pacific		Solid			X	X		TEQs required
SL-534-SA6-SB-0.0-0.5 (280-36589-11)	12/4/12	09:05 Pacific		Solid			X	X		TEQs required
SL-534-SA6-SB-3.0-4.0 (280-36589-13)	12/4/12	09:15 Pacific		Solid			X	X		TEQs required
SL-626-SA6-SB-0.0-0.5 (280-36589-16)	12/4/12	07:50 Pacific		Solid			X	X		TEQs required
SL-627-SA6-SB-0.0-0.5 (280-36589-18)	12/4/12	08:30 Pacific		Solid			X	X		TEQs required
SL-627-SA6-SB-1.0-2.0 (280-36589-20)	12/4/12	08:55 Pacific		Solid			X	X		TEQs required
SL-628-SA6-SB-0.0-0.5 (280-36589-23)	12/4/12	11:00 Pacific		Solid			X	X		TEQs required
SL-628-SA6-SB-4.0-5.0 (280-36589-25)	12/4/12	11:20 Pacific		Solid			X	X		TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12/7/12 16:00	Company: TA	Received by: [signature]	Date/Time: 12-8-12 08:45	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

CUSTODY SEALS INTACT
RECEIVED AT 0.7°C
BKD 12-8-12
ICOOKA FED EX # 5490 3693 1640

1A2L D80402

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162428.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36589-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/14/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-631-SA6-SB-0.0-0.5 (280-36589-28)	12/4/12	10:20 Pacific		Solid			X	X		TEQs required
SL-632-SA6-SB-0.0-0.5 (280-36589-30)	12/4/12	09:55 Pacific		Solid			X	X		TEQs required
SL-629-SA6-SB-0.0-0.5 (280-36589-32)	12/4/12	13:30 Pacific		Solid			X	X		TEQs required
SL-629-SA6-SB-2.5-3.5 (280-36589-34)	12/4/12	14:05 Pacific		Solid			X	X		TEQs required
SL-630-SA6-SB-0.0-0.5 (280-36589-37)	12/4/12	14:25 Pacific		Solid			X	X		TEQs required
SL-536-SA6-SB-0.0-0.5 (280-36589-39)	12/4/12	13:30 Pacific		Solid			X	X		TEQs required
SL-546-SA6-SB-0.0-0.5 (280-36589-41)	12/4/12	14:10 Pacific		Solid			X	X		TEQs required
SL-546-SA6-SB-6.5-7.5 (280-36589-43)	12/4/12	14:35 Pacific		Solid			X	X		TEQs required
SL-549-SA6-SB-0.0-0.5 (280-36589-46)	12/4/12	12:55 Pacific		Solid			X	X		TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12/7/12 1600	Company TA	Received by: [signature]	Date/Time: 12-8-12 08:45	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1T2L080402

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 9D692 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12-8-12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

4.6 5.1 FP 125 R

CDM Smith

DateShipped: 12/4/2012
CarrierName: FedEx
AirbillNo: 794219854432

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121204-01
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120412	12/4/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.5	12/4/12 09:14	SO	None	3 - Encore	10 day																				X												
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.5	12/4/12 09:00	SO	None	3 - Encore	10 day																				X												
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.5	12/4/12 11:25	SO	None	3 - Encore	10 day																				X												
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012

CarrierName: FedEx

AirbillNo: 794219854432

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121204-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-3.0	12/4/12 14:10	SO	None	3 - Encore	10 day																				X												
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-536-SA5B-SB-0.0-0.5	7/17/12 09:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-7.0	12/4/12 14:34	SO	None	3 - Encore	10 day																				X												
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/04/2012	1600	[illegible]	12/5/12	1000						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012

CarrierName: FedEx

AirbillNo: 794219854432

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121204-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120412	12/4/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-529-SA6-SB-0.0-0.5	12/4/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-531-SA6-SB-0.0-0.5	12/4/12 08:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA6-SB-0.0-0.5	12/4/12 07:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA6-SB-0.0-0.5	12/4/12 08:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-0.0-0.5	12/4/12 09:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA6-SB-3.0-4.0	12/4/12 09:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA6-SB-3.5	12/4/12 09:14	SO	None	3 - Encore	10 day																				X												
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-626-SA6-SB-0.0-0.5	12/4/12 07:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-0.0-0.5	12/4/12 08:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-627-SA6-SB-1.0-2.0	12/4/12 08:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-627-SA6-SB-1.5	12/4/12 09:00	SO	None	3 - Encore	10 day																				X												
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-0.0-0.5	12/4/12 11:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-628-SA6-SB-4.0-5.0	12/4/12 11:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-628-SA6-SB-4.5	12/4/12 11:25	SO	None	3 - Encore	10 day																				X												
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-631-SA6-SB-0.0-0.5	12/4/12 10:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-632-SA6-SB-0.0-0.5	12/4/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2012

CarrierName: FedEx

AirbillNo: 794219854432

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121204-01

Cooler #: 1,2

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-629-SA6-SB-2.5-3.5	12/4/12 14:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-629-SA6-SB-3.0	12/4/12 14:10	SO	None	3 - Encore	10 day																				X												
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-630-SA6-SB-0.0-0.5	12/4/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-536-SA6-SB-0.0-0.5	12/4/12 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-0.0-0.5	12/4/12 14:10	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X							X				
SL-546-SA6-SB-6.5-7.5	12/4/12 14:35	SO	None	2 - 4 oz glass	10 day													X		X																	
SL-546-SA6-SB-7.0	12/4/12 14:34	SO	None	3 - Encore	10 day																				X												
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-549-SA6-SB-0.0-0.5	12/4/12 12:55	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36589-2

Login Number: 36589
List Number: 1
Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Wednesday, December 05, 2012 3:36 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36589, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty-five soil samples one trip blank received at the laboratories on 12/5/12.

The samples were received in acceptable condition at temperature of 4.6℃ and 5.1℃.

RECEIPT DISCREPANCIES:

1.) Chain of Custody 20121204-01 lists sample SL-536-SA5B-SB-0.0-0.5 collected on 7/17/2012 at 09:20 in error. A revised Chain of Custody was received via email on December 5, 2012. Both the original and revised Chains of Custody have been included.

Please note:

1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.

2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.

3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36589-2 to accommodate the extended TAT required for dioxin analysis.

3.) TestAmerica's Denver laboratory subcontracted the 7199 Hexavalent Chromium analysis to TestAmerica's Irvine laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [088783]
Attachments: 6

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36640-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/19/2012 10:15:03 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 9
Detection Summary 10
Method Summary 26
Sample Summary 27
Client Sample Results 28
QC Sample Results 72
QC Association 104
Chronicle 118
Chain of Custody 131
Receipt Checklists 135

Job ID: 280-36640-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36640-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Twenty-one soil samples, one Equipment Blank and one Trip Blank were received under Chain of Custody on December 6, 2012. The samples were received in good condition at temperatures of 3.3°C, 4.8°C, 5.1°C, 5.4°C, 4.6°C and 3.3°C.

SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that was homogenized. Prior to homogenization, sample volume required for the volatile analyses was logged as one distinct sample, while the volume requiring homogenization was logged with the same sample ID as a second laboratory sample.

The percent moisture analysis was performed on the homogenized sample volume, per project requirements. Data was uploaded from the homogenized moisture results to the associated non-homogenized samples per the project set-up to report the data on a dry weight basis.

Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The percent moisture result from the sample interval surrounding the encore sample has been applied to the TPH-GRO 8015B and/or VOCs 8260B results to report the data on a dry weight basis per project requirements and client instructions.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36640-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, sample EB-120512 (280-36640-37) had an initial aliquot volume of 962.7 mL. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of sample EB-120512 (280-36640-37) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

Low levels of Benzo[a]anthracene, Fluoranthene and Phenanthrene were detected in the method blank associated with prep batch 280-150872. The values should be considered estimates, and have been flagged “J”. Because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

Additionally, surrogate Terphenyl-d14 was recovered above the QC control limits in the method blank associated with prep batch

Job ID: 280-36640-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

280-150872 at 139% (limits 45-130%). This is an indicator that the data may be biased high. As there were no detectable concentrations present above the reporting limits in the method blank or the associated sample, corrective action was deemed unnecessary.

A low level of 2-Methylnaphthalene was detected in the method blank associated with prep batch 280-151447. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

The LCS/LCSD associated with prep batch 280-150872 exhibited the LCSD surrogate recovery above the QC control limits for Terphenyl-d14 at 150% (limits 45-130%). This is an indicator that data may be biased high. No detectable concentrations are present above the reporting limits in the associated sample. The acceptable LCS recoveries provide evidence that the laboratory is performing the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.

Matrix spikes were not requested for prep batch 280-150872. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B
Matrix spikes were not requested for prep batch 280-150911. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, sample EB-120512 (280-36640-37) had an initial aliquot volume of 902.2 mL. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of sample EB-120512 (280-36640-37) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

A low level of Total Petroleum Hydrocarbons (C8-C40) was detected in the method blank associated with prep batch 280-151516. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

Matrix spikes were not requested for prep batch 280-151564. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were observed.

GC Semivolatiles / Pesticides - SW846 Method 8081B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

TestAmerica Denver’s practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of “primary” and “secondary” results in the data package does not necessarily correlate to “primary” and “confirmation” column results. The use of the designator “primary” in the LIM system indicates the “preferred” result, which may

Job ID: 280-36640-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

come from either column.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, sample SL-634-SA6-SB-0.0-0.5 (280-36640-26) had to be analyzed at a 10X dilution for 4,4'-DDT, Methoxychlor and Toxaphene. The reporting limits have been adjusted relative to the dilution required. The sample is believed to have caused the %R for target analytes in the associated CCVs to recover outside control limits. Only compounds with failing CCV's in the origninal analysis are reported from the dilution.

Due to limited sample volume, sample EB-120512 (280-36640-37) had an initial aliquot volume of 930.9 mL. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of sample EB-120512 (280-36640-37) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

Surrogate recoveries could not be reliably calculated for the diluted analysis of sample SL-634-SA6-SB-0.0-0.5 (280-36640-26), because the extract was diluted beyond the ability to quantitate recoveries.

The RPD between the primary and confirmation columns exceeded 40% for delta-BHC in sample SL-634-SA6-SB-2.0-3.0 (280-36640-28). The lower of the two values has been reported, as matrix interference is evident. The result in the analytical report has been flagged with “p”.

Matrix spikes were not requested for prep batch 280-151138. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

The MS/MSD analyses associated with prep batch 280-151296 (analytical batch 280-152542) were performed on sample SL-634-SA6-SB-0.0-0.5 (280-36640-26). Spike compound recoveries, RPD data and surrogate recoveries could not be calculated because the sample was diluted beyond the ability to quantitate recoveries. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

Sample SL-635-SA6-SB-0.0-0.5 (280-36640-31) appeared to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the samples do not closely match any of the laboratory' s Aroclor standards used for instrument calibration. The sample has been quantified and reported as Arochlor 1254. Due to the poor match with the Aroclor standards, there is increased qualitative and quantitative uncertainty associated with this result.

Samples SL-519-SA6-SB-0.0-0.5 (280-36640-3), SL-520-SA6-SB-0.0-0.5 (280-36640-24) and SL-636-SA6-SB-0.0-0.5 (280-36640-33) contained more than one Arochlor component. Please note the results are estimated due to shared peaks.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, sample EB-120512 (280-36640-37) had an initial aliquot volume of 930.9 mL. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of sample EB-120512 (280-36640-37) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

The MS/MSD analyses associated with prep batch 280-151296 were performed on sample SL-634-SA6-SB-2.0-3.0 (280-36640-28. The MS/MSD exhibited percent recoveries outside the QC control limits for Arochlor 1016. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Job ID: 280-36640-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Matrix spikes were not requested for prep batch 280-151138. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-152281 exhibited the % Difference (%D) value above the control limits for Aroclor 5460. This is an indicator that data may be biased high. As no detectable concentrations are present in the associated samples; corrective action is deemed unnecessary.

No other anomalies were observed.

GC Semivolatiles / Herbicides - SW846 Method 8151A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and /or raw data is to report the analytes/surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets .

The designation of "primary" and "secondary" results in the data package does not necessarily correlate to "primary" and "confirmation" column results. The use of the designator "primary" in the LIM system indicates the "preferred" result, which may come from either column.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, samples SL-634-SA6-SB-0.0-0.5 (280-36640-26) and SL-634-SA6-SB-2.0-3.0 (280-36640-28) had to be analyzed at a 5X dilution. The reporting limits have been adjusted relative to the dilutions required. The analyst noted that the sample extracts were dark yellow in color and analysis at a lesser dilution would jeopardize the integrity of the instrument.

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-634-SA6-SB-0.0-0.5 (280-36640-26) and SL-634-SA6-SB-2.0-3.0 (280-36640-28) because the extracts were diluted beyond the ability to quantitate recoveries.

Due to limited sample volume, sample EB-120512 (280-36640-37) had an initial aliquot volume of 932.9 mL. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of sample EB-120512 (280-36640-37) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

The Initial Calibration Verification (CCV) standard associated with analytical batch 280-152245 exhibited the % Difference (%D) value above the control limits for MCPP on the confirmation column . This is an indicator that data may be biased high. As no detectable concentrations are present in the associated samples and the MCPP result was reported from the primary column ; corrective action is deemed unnecessary.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-152245 exhibited the % Difference (%D) value above the control limits for several compounds. This is an indicator that data may be biased high. As no detectable concentrations are present in the associated sample; corrective action is deemed unnecessary.

No other anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7471B / 7470A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

A low level of Thallium was detected in the method 6020A blank associated with prep batch 280-151250. The value should be considered an estimate, and has been flagged "J". Because the concentration in the method blank was not present at a level

Job ID: 280-36640-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

greater than one half the reporting limit, corrective action was deemed unnecessary. Usability of the sample data is not compromised.

Low levels of Antimony, Barium, Chromium, Cobalt, Copper, Lead, Nickel, Thallium, Vanadium and Zinc were detected in the method 6020A blank associated with prep batch 280-151258. The values should be considered estimates, and have been flagged "J". Because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a "B". Usability of the sample data is not compromised.

The 6010C MS/MSD analyses associated with prep batch 280-151251 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron and Magnesium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Iron and Manganese due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C MS/MSD analyses associated with prep batch 280-151259 were performed on sample SL-519-SA6-SB-0.0-0.5 (280-36640-3). The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-151258 were performed on sample SL-519-SA6-SB-0.0-0.5 (280-36640-3). The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony and Zinc. Additionally, the MS/MSD exhibited the relative percent difference (RPD) data outside the QC control limits for Copper Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium and Zinc due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-151897 were performed on sample SL-634-SA6-SB-2.0-3.0 (280-36640-28). The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony and Zinc. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C post digestive spike (PDS) and serial dilution (SD) associated with prep batch 280-151251 was performed on a sample from another client and/or job. The serial dilution exhibited the percent difference recovery outside the control limits for Titanium, indicating that physical and chemical interferences were present. Additionally, the post digestive spike exhibited recoveries outside the control limits for Aluminum and Titanium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C post digestive spike (PDS) and serial dilution (SD) associated with prep batch 280-151259 was performed on sample SL-519-SA6-SB-0.0-0.5 (280-36640-3). The serial dilution exhibited the percent difference recovery outside the control limits for Lithium, indicating that physical and chemical interferences were present. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A post digestive spike (PDS) and serial dilution (SD) associated with prep batch 280-151258 was performed on sample SL-519-SA6-SB-0.0-0.5 (280-36640-3). The serial dilution exhibited the percent difference recovery outside the control limits for Thallium, indicating that physical and chemical interferences were present. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Job ID: 280-36640-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Thallium was present at a level greater than the reporting limit in the instrument blank associated with analytical batch 280-151741. This is an indicator that data may be biased high. As no detectable concentrations of Thallium were present above the reporting limit in the associated samples, corrective action is deemed unnecessary.

No other anomalies were observed.

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
B	Compound was found in the blank and sample.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: TB-120512 — Lab Sample ID: 280-36640-1

No Detections

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.29	J	10	0.27	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.49	J B	10	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	6.0	J	10	0.94	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	7.0	J	10	0.77	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	10		10	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	8.1	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	3.8	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	6.7	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	7.3	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	5.3	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.35	J	10	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.4	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	7.8	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	9.2		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	48		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	23		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	72	B	4.3	0.73	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	39		18	5.7	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	25		18	2.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	31	J	52	17	ug/Kg	1	☼	8082A	Total/NA
Aluminum	12000	J	18000	1.4	mg/Kg	1	☼	6010C	Total/NA
Boron	1.2	J	8.8	0.89	mg/Kg	1	☼	6010C	Total/NA
Calcium	6100		45	13	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		31	3.4	mg/Kg	1	☼	6010C	Total/NA
Lithium	18	J	33	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4200		9.0	3.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	450	0.090	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	350		9.0	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2600	J	5800	37	mg/Kg	1	☼	6010C	Total/NA
Sodium	230	J	450	53	mg/Kg	1	☼	6010C	Total/NA
Strontium	22		0.45	0.033	mg/Kg	1	☼	6010C	Total/NA
Tin	3.2	J	9.9	0.83	mg/Kg	1	☼	6010C	Total/NA
Titanium	790		0.90	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.7	J	7.8	0.32	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.051	J B	9.4	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.2	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	85	J B	150	0.076	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.58	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.35	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J B	40	0.082	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.9	J B	23	0.0071	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J B	31	0.076	mg/Kg	1	☼	6020A	Total/NA
Lead	12	J B	37	0.020	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-519-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.59	J	5.7	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	10	J B	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.18	J	0.70	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.035	J	0.85	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.28	J B	0.49	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J B	67	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	88	J B	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.24		0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	8.69		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	6.4	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.4	J	5.2	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	9.2	B	4.2	0.71	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.0	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	1700		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	38	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	250		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2500	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	150	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.50	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.7	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.9	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.026	J B	7.9	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.2	J	14	0.046	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J B	130	0.064	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.83	J	1.0	0.020	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.096	J	0.91	0.0085	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J B	33	0.069	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.2	J B	19	0.0060	mg/Kg	1	☼	6020A	Total/NA
Copper	7.9	J B	26	0.064	mg/Kg	1	☼	6020A	Total/NA
Lead	5.2	J B	31	0.016	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.62	J	4.8	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	26	0.023	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.12	J	0.59	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.030	J	0.72	0.018	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J B	0.42	0.0032	mg/Kg	1	☼	6020A	Total/NA
Vanadium	35	J B	56	0.035	mg/Kg	1	☼	6020A	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36640-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	50	J B	100	0.29	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0070	J	0.024	0.0066	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	8.77		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-519-SA6-SB-4.5 — Lab Sample ID: 280-36640-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	0.39	J	0.92	0.30	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	1.1	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	1.9	J B	4.2	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	21000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4700		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	410		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2000	J	6600	43	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	520	61	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.8	J	11	0.95	mg/Kg	1	☼	6010C	Total/NA
Titanium	920		1.0	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.7	J	8.9	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.019	J B	8.2	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.0	J	14	0.048	mg/Kg	1	☼	6020A	Total/NA
Barium	88	J B	130	0.066	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.64	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.064	J	0.94	0.0088	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J B	35	0.071	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J B	20	0.0062	mg/Kg	1	☼	6020A	Total/NA
Copper	6.3	J B	27	0.067	mg/Kg	1	☼	6020A	Total/NA
Lead	4.5	J B	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.42	J	5.0	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J B	27	0.024	mg/Kg	1	☼	6020A	Total/NA
Silver	0.023	J	0.74	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J B	0.43	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J B	58	0.036	mg/Kg	1	☼	6020A	Total/NA
Zinc	43	J B	100	0.30	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.69		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-9.5 — Lab Sample ID: 280-36640-9

No Detections

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	7.5	J	11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.2	J	5.5	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	9.2	B	4.4	0.75	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4500		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	220	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	220		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	1600	J	6500	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	110	J	500	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	19		0.50	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	3.9	J	11	0.92	mg/Kg	1	☼	6010C	Total/NA
Titanium	980		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.018	J B	8.5	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.7	J	15	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	78	J B	140	0.069	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.64	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.045	J	0.97	0.0091	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J B	36	0.074	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.3	J B	20	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	6.3	J B	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	4.4	J B	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.53	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	9.5	J B	28	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.13	J	0.64	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.029	J	0.77	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.24	J B	0.45	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J B	60	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	43	J B	110	0.31	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.22		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-519-SA6-SB-14.5 — Lab Sample ID: 280-36640-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	0.50	J	1.1	0.34	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-13

Client Sample ID: SL-519-SA6-SB-21.0-22.0 (Continued) — Lab Sample ID: 280-36640-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	0.99	J B	4.3	0.73	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	1600		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	16000		34	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	18	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3700		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	260	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	120		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	1400	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	140	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.50	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	3.2	J	11	0.92	mg/Kg	1	☼	6010C	Total/NA
Titanium	760		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.016	J B	9.1	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.4	J	16	0.053	mg/Kg	1	☼	6020A	Total/NA
Barium	64	J B	150	0.073	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.60	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.022	J	1.0	0.0098	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J B	38	0.079	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J B	22	0.0069	mg/Kg	1	☼	6020A	Total/NA
Copper	6.6	J B	30	0.074	mg/Kg	1	☼	6020A	Total/NA
Lead	4.0	J B	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.24	J	5.5	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.1	J B	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Silver	0.032	J	0.82	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.18	J B	0.48	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	30	J B	65	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	40	J B	110	0.33	mg/Kg	1	☼	6020A	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.06		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-519-SA6-SB-21.5 — Lab Sample ID: 280-36640-15

No Detections

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.48	J B	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.64	J	11	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
C30-C40	20		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.7	J	5.5	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	4.5	J	5.5	1.1	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-550-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	27	B	4.4	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		56	16	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		38	4.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	27	J	41	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5000		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	550	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	480		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	4000	J	7200	46	mg/Kg	1	☼	6010C	Total/NA
Sodium	86	J	560	66	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.55	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	3.8	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	950		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.3	J	9.6	0.40	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.025	J B	8.6	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	7.1	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	76	J B	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.60	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.15	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA
Chromium	22	J B	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.0	J B	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	9.5	J B	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	9.6	J B	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.3	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	17	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.18	J	0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.065	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J B	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J B	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	57	J B	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.014	J	0.022	0.0062	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.48		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.34	J	10	0.26	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.99	J B	10	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.39	J	10	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.3	J	10	0.92	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.8	J	10	0.75	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	4.1	J	10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	5.4	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	2.5	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	2.9	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-633-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	3.1	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.91	J	10	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.7	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	4.1	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	2.7		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	15		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	2.5	J	5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	15		5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	33	B	4.2	0.72	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	46		17	5.7	ug/Kg	1	☼	8082A	Total/NA
Aluminum	6900	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.1	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	1300		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	12000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	19	J	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2700		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	140	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	230		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	1800	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	510	61	mg/Kg	1	☼	6010C	Total/NA
Strontium	10		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	2.8	J	11	0.94	mg/Kg	1	☼	6010C	Total/NA
Titanium	580		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.68	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.013	J B	8.4	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.6	J	14	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	55	J B	130	0.068	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.33	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.33	J	0.96	0.0090	mg/Kg	1	☼	6020A	Total/NA
Chromium	12	J B	35	0.073	mg/Kg	1	☼	6020A	Total/NA
Cobalt	3.4	J B	20	0.0064	mg/Kg	1	☼	6020A	Total/NA
Copper	7.2	J B	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	9.0	J B	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.40	J	5.1	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	7.8	J B	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Silver	1.7		0.76	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.15	J B	0.44	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	18	J B	60	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	58	J B	110	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.024		0.022	0.0062	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.13		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.6		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-20

Client Sample ID: SL-633-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36640-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.0	J	10	0.26	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	3.0	J B	10	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.87	J	10	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.4	J	10	0.73	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	5.5	J	10	0.91	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	5.4	J	10	0.75	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	11		10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	9.6	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	3.1	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	8.7	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	11		10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	0.55	J	10	0.48	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	6.3	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.8	J	10	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	4.1	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	15		10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	7.7		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	62		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	2.8	J	5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	54		5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	120	B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	33		17	5.5	ug/Kg	1	☼	8082A	Total/NA
Aluminum	8200	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.1	J	9.8	0.99	mg/Kg	1	☼	6010C	Total/NA
Calcium	1600		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	21000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J	38	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3200		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	200	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2100	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	13		0.50	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.1	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	600		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.014	J B	7.5	0.012	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.7	J	13	0.044	mg/Kg	1	☼	6020A	Total/NA
Barium	47	J B	120	0.061	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.36	J	0.95	0.019	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.39	J	0.86	0.0081	mg/Kg	1	☼	6020A	Total/NA
Chromium	12	J B	32	0.066	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.9	J B	18	0.0057	mg/Kg	1	☼	6020A	Total/NA
Copper	8.3	J B	25	0.061	mg/Kg	1	☼	6020A	Total/NA
Lead	9.0	J B	29	0.016	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.43	J	4.6	0.015	mg/Kg	1	☼	6020A	Total/NA
Nickel	8.6	J B	25	0.022	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-633-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36640-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.15	J	0.57	0.11	mg/Kg	1	☼	6020A	Total/NA
Silver	2.0		0.68	0.018	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.14	J B	0.40	0.0030	mg/Kg	1	☼	6020A	Total/NA
Vanadium	19	J B	54	0.033	mg/Kg	1	☼	6020A	Total/NA
Zinc	64	J B	95	0.27	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.019	J	0.025	0.0069	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.94		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-633-SA6-SB-3.0 — Lab Sample ID: 280-36640-22

No Detections

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	11		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	4.8	J	5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	16	B	4.3	0.72	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	58		18	5.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	99		18	2.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	38	J	53	17	ug/Kg	1	☼	8082A	Total/NA
Aluminum	13000	J	19000	1.4	mg/Kg	1	☼	6010C	Total/NA
Boron	0.93	J	9.0	0.91	mg/Kg	1	☼	6010C	Total/NA
Calcium	3000		46	13	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		32	3.5	mg/Kg	1	☼	6010C	Total/NA
Lithium	22	J	34	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		9.3	3.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	250	J	460	0.093	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	280		9.3	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	2500	J	5900	38	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	460	55	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.46	0.033	mg/Kg	1	☼	6010C	Total/NA
Tin	3.7	J	10	0.85	mg/Kg	1	☼	6010C	Total/NA
Titanium	890		0.92	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	8.0	0.33	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.029	J B	8.6	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.2	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	81	J B	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.56	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.28	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA
Chromium	16	J B	36	0.075	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.1	J B	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	8.7	J B	29	0.070	mg/Kg	1	☼	6020A	Total/NA
Lead	24	J B	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.56	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-520-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	10	J B	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Silver	0.12	J	0.78	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.20	J B	0.45	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J B	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	150	B	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.12		0.023	0.0064	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	8.63		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.33	J	11	0.29	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	0.77	J B	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.23	J	11	0.19	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.0	J	11	0.99	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.3	J	11	0.81	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	3.0	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	3.6	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	2.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	2.3	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.1	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.67	J	11	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	3.3	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.9		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	13		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.1	J	5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	11		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	26	B	4.3	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	38		18	6.0	ug/Kg	1	☼	8082A	Total/NA
Aluminum	8000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.5	J	9.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	1700		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	13000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J	38	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3200		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	190	J	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	280		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2100	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	110	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	15		0.50	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	3.2	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	650		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	0.72	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.019	J B	9.5	0.015	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-634-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.3	J	16	0.056	mg/Kg	1	☼	6020A	Total/NA
Barium	50	J B	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.29	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.33	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	11	J B	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	3.5	J B	23	0.0073	mg/Kg	1	☼	6020A	Total/NA
Copper	8.4	J B	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	9.5	J B	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.33	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	7.7	J B	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.15	J	0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	2.0		0.87	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.15	J B	0.50	0.0039	mg/Kg	1	☼	6020A	Total/NA
Vanadium	18	J B	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	57	J B	120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.025		0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.43		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.1		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36640-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.6	J	9.7	0.25	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	4.5	J B	9.7	0.30	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.41	J	9.7	0.16	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	2.4	J	9.7	0.16	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	3.9	J	9.7	0.70	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	8.0	J	9.7	0.87	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	9.2	J	9.7	0.72	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	20		9.7	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	17		9.7	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	4.5	J	9.7	0.97	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	16		9.7	0.97	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	23		9.7	0.97	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	1.3	J	9.7	0.46	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	10		9.7	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	3.2	J	9.7	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	8.7	J	9.7	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	33		9.7	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	13		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	39		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C12-C14)	1.4	J	5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	4.5	J	5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	39		5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	84	B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36640-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
delta-BHC	0.62	J p	1.7	0.40	ug/Kg	1	☼	8081B	Total/NA

Client Sample ID: SL-634-SA6-SB-2.0-3.0 (Continued) — Lab Sample ID: 280-36640-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	17		17	5.5	ug/Kg	1	☼	8082A	Total/NA
Aluminum	9200	J	17000	1.3	mg/Kg	1	☼	6010C	Total/NA
Boron	1.3	J	8.4	0.85	mg/Kg	1	☼	6010C	Total/NA
Calcium	1900		43	12	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		30	3.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	32	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3500		8.7	3.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	170	J	430	0.087	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	320		8.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Potassium	2400	J	5600	36	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	430	51	mg/Kg	1	☼	6010C	Total/NA
Strontium	15		0.43	0.031	mg/Kg	1	☼	6010C	Total/NA
Tin	3.1	J	9.5	0.79	mg/Kg	1	☼	6010C	Total/NA
Titanium	710		0.87	0.12	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.2	J	7.5	0.31	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.015	J	7.8	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.1	J	13	0.046	mg/Kg	1	☼	6020A	Total/NA
Barium	69	J	130	0.063	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.41	J	0.96	0.020	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.37	J	0.87	0.0082	mg/Kg	1	☼	6020A	Total/NA
Chromium	15	J	33	0.068	mg/Kg	1	☼	6020A	Total/NA
Cobalt	4.6	J	19	0.0060	mg/Kg	1	☼	6020A	Total/NA
Copper	9.3	J	26	0.064	mg/Kg	1	☼	6020A	Total/NA
Lead	8.8	J	31	0.016	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.47	J	4.8	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	26	0.023	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.77		0.57	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	1.9		0.71	0.018	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.22	J	0.41	0.0032	mg/Kg	1	☼	6020A	Total/NA
Vanadium	23	J	54	0.033	mg/Kg	1	☼	6020A	Total/NA
Zinc	63	J	99	0.28	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.020	J	0.023	0.0064	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.22		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-634-SA6-SB-2.5 — Lab Sample ID: 280-36640-29

No Detections

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	2.0	J	12	0.31	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	3.2	J B	12	0.37	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	2.4	J	12	0.20	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	2.9	J	12	0.86	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	3.9	J	12	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	4.0	J	12	0.89	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	9.2	J	12	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	5.1	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	2.6	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-635-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	11	J	12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	14		12	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	4.1	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	5.6	J	12	0.39	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	9.1	J	12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	13		12	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	5.7		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	49		12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	5.1	J	5.9	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	26		5.9	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	81	B	4.7	0.80	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	25		20	6.5	ug/Kg	1	☼	8082A	Total/NA
Aluminum	13000	J	23000	1.8	mg/Kg	1	☼	6010C	Total/NA
Boron	3.7	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	3500		58	16	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		39	4.4	mg/Kg	1	☼	6010C	Total/NA
Lithium	29	J	43	0.35	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5500		12	4.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	570	0.12	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	450		12	1.9	mg/Kg	1	☼	6010C	Total/NA
Potassium	4100	J	7400	47	mg/Kg	1	☼	6010C	Total/NA
Sodium	130	J	580	68	mg/Kg	1	☼	6010C	Total/NA
Strontium	26		0.57	0.041	mg/Kg	1	☼	6010C	Total/NA
Tin	4.2	J	13	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.4	J	9.9	0.41	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.026	J	10	0.016	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.9	J	18	0.059	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	160	0.083	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.62	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.43	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J	43	0.089	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.3	J	25	0.0078	mg/Kg	1	☼	6020A	Total/NA
Copper	17	J	34	0.083	mg/Kg	1	☼	6020A	Total/NA
Lead	15	J	40	0.021	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.52	J	6.2	0.021	mg/Kg	1	☼	6020A	Total/NA
Nickel	16	J	34	0.030	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.94		0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.99		0.93	0.024	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.29	J	0.54	0.0041	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	79	J	130	0.37	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.038		0.028	0.0076	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.86		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.70	J	11	0.29	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.2	J B	11	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.0	J	11	0.80	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	3.1	J	11	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	2.4	J	11	0.82	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	4.8	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	3.2	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	2.3	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	6.2	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	6.7	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.7	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	2.4	J	11	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	5.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	6.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	3.5		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	27		12	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	3.0	J	5.9	1.2	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	17		5.9	1.2	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	49	B	4.7	0.80	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	45		20	6.6	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	32		20	3.2	ug/Kg	1	☼	8082A	Total/NA
Aluminum	13000	J	23000	1.8	mg/Kg	1	☼	6010C	Total/NA
Boron	1.8	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		57	16	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		39	4.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	42	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5100		11	4.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	250	J	560	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	380		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3400	J	7300	47	mg/Kg	1	☼	6010C	Total/NA
Sodium	99	J	570	67	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.56	0.041	mg/Kg	1	☼	6010C	Total/NA
Tin	4.1	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.3	J	9.8	0.40	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.020	J	9.3	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	6.0	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	98	J	150	0.075	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.56	J	1.3	0.027	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.35	J	1.2	0.011	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J	39	0.081	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.6	J	22	0.0071	mg/Kg	1	☼	6020A	Total/NA
Copper	9.7	J	31	0.076	mg/Kg	1	☼	6020A	Total/NA
Lead	15	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.59	J	5.6	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	14	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.78		0.77	0.16	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-636-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	2.3		0.84	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.27	J	0.49	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	33	J	73	0.045	mg/Kg	1	☼	6020A	Total/NA
Zinc	65	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.033		0.028	0.0077	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	5.82		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.7		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	6.0	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	2.4	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	9.4	B	4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	17000	1.3	mg/Kg	1	☼	6010C	Total/NA
Boron	1.2	J	8.4	0.85	mg/Kg	1	☼	6010C	Total/NA
Calcium	2500		44	12	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		30	3.3	mg/Kg	1	☼	6010C	Total/NA
Lithium	29	J	32	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5100		8.7	3.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	290	J	430	0.087	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	380		8.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Potassium	2900	J	5600	36	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	440	51	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.43	0.031	mg/Kg	1	☼	6010C	Total/NA
Tin	3.5	J	9.5	0.79	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		0.87	0.12	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.1	J	7.5	0.31	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.014	J B	7.8	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	6.4	J	14	0.046	mg/Kg	1	☼	6020A	Total/NA
Barium	92	J B	130	0.063	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.62	J	0.99	0.020	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.19	J	0.90	0.0084	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J B	33	0.068	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.1	J B	19	0.0060	mg/Kg	1	☼	6020A	Total/NA
Copper	8.6	J B	26	0.064	mg/Kg	1	☼	6020A	Total/NA
Lead	5.2	J B	31	0.016	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.42	J	4.8	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	14	J B	26	0.023	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.22	J	0.59	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.17	J	0.71	0.018	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.21	J B	0.41	0.0032	mg/Kg	1	☼	6020A	Total/NA
Vanadium	33	J B	56	0.035	mg/Kg	1	☼	6020A	Total/NA
Zinc	52	J B	99	0.28	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.72		0.100	0.100	SU	1		9045D	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-636-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36640-35

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Temperature	20.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-636-SA6-SB-3.0 — Lab Sample ID: 280-36640-36

No Detections

Client Sample ID: EB-120512 — Lab Sample ID: 280-36640-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.0087	J	0.10	0.0059	ug/L	1		8270C SIM	Total/NA
2-Methylnaphthalene	0.0081	J	0.10	0.0053	ug/L	1		8270C SIM	Total/NA
Acenaphthene	0.016	J	0.10	0.011	ug/L	1		8270C SIM	Total/NA
Fluorene	0.021	J	0.10	0.020	ug/L	1		8270C SIM	Total/NA
Naphthalene	0.046	J	0.10	0.0055	ug/L	1		8270C SIM	Total/NA
Phenanthrene	0.019	J B	0.10	0.010	ug/L	1		8270C SIM	Total/NA
Boron	0.0059	J	0.10	0.0044	mg/L	1		6010C	Total/NA
Magnesium	0.012	J	0.20	0.011	mg/L	1		6010C	Total/NA
Manganese	0.00051	J	0.010	0.00025	mg/L	1		6010C	Total/NA
Sodium	0.27	J	1.0	0.092	mg/L	1		6010C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	5.74	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	20.0	HF	1.00	1.00	Degrees C	1		9040C	Total/NA

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8081B	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7470A	Mercury (CVAA)	SW846	TAL DEN
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL DEN
9040C	pH	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36640-1	TB-120512	Water	12/05/12 08:00	12/06/12 09:00
280-36640-2	SL-519-SA6-SB-0.0-0.5	Solid	12/05/12 09:00	12/06/12 09:00
280-36640-3	SL-519-SA6-SB-0.0-0.5	Solid	12/05/12 09:00	12/06/12 09:00
280-36640-4	SL-519-SA6-SB-4.0-5.0	Solid	12/05/12 09:45	12/06/12 09:00
280-36640-5	SL-519-SA6-SB-4.0-5.0	Solid	12/05/12 09:45	12/06/12 09:00
280-36640-6	SL-519-SA6-SB-4.5	Solid	12/05/12 09:44	12/06/12 09:00
280-36640-7	SL-519-SA6-SB-9.0-10.0	Solid	12/05/12 09:55	12/06/12 09:00
280-36640-8	SL-519-SA6-SB-9.0-10.0	Solid	12/05/12 09:55	12/06/12 09:00
280-36640-9	SL-519-SA6-SB-9.5	Solid	12/05/12 09:54	12/06/12 09:00
280-36640-10	SL-519-SA6-SB-14.0-15.0	Solid	12/05/12 10:00	12/06/12 09:00
280-36640-11	SL-519-SA6-SB-14.0-15.0	Solid	12/05/12 10:00	12/06/12 09:00
280-36640-12	SL-519-SA6-SB-14.5	Solid	12/05/12 09:59	12/06/12 09:00
280-36640-13	SL-519-SA6-SB-21.0-22.0	Solid	12/05/12 10:05	12/06/12 09:00
280-36640-14	SL-519-SA6-SB-21.0-22.0	Solid	12/05/12 10:05	12/06/12 09:00
280-36640-15	SL-519-SA6-SB-21.5	Solid	12/05/12 10:04	12/06/12 09:00
280-36640-16	SL-550-SA6-SB-0.0-0.5	Solid	12/05/12 09:50	12/06/12 09:00
280-36640-17	SL-550-SA6-SB-0.0-0.5	Solid	12/05/12 09:50	12/06/12 09:00
280-36640-18	SL-633-SA6-SB-0.0-0.5	Solid	12/05/12 10:30	12/06/12 09:00
280-36640-19	SL-633-SA6-SB-0.0-0.5	Solid	12/05/12 10:30	12/06/12 09:00
280-36640-20	SL-633-SA6-SB-2.5-3.5	Solid	12/05/12 10:50	12/06/12 09:00
280-36640-21	SL-633-SA6-SB-2.5-3.5	Solid	12/05/12 10:50	12/06/12 09:00
280-36640-22	SL-633-SA6-SB-3.0	Solid	12/05/12 10:55	12/06/12 09:00
280-36640-23	SL-520-SA6-SB-0.0-0.5	Solid	12/05/12 12:45	12/06/12 09:00
280-36640-24	SL-520-SA6-SB-0.0-0.5	Solid	12/05/12 12:45	12/06/12 09:00
280-36640-25	SL-634-SA6-SB-0.0-0.5	Solid	12/05/12 13:45	12/06/12 09:00
280-36640-26	SL-634-SA6-SB-0.0-0.5	Solid	12/05/12 13:45	12/06/12 09:00
280-36640-27	SL-634-SA6-SB-2.0-3.0	Solid	12/05/12 14:00	12/06/12 09:00
280-36640-28	SL-634-SA6-SB-2.0-3.0	Solid	12/05/12 14:00	12/06/12 09:00
280-36640-29	SL-634-SA6-SB-2.5	Solid	12/05/12 14:05	12/06/12 09:00
280-36640-30	SL-635-SA6-SB-0.0-0.5	Solid	12/05/12 14:20	12/06/12 09:00
280-36640-31	SL-635-SA6-SB-0.0-0.5	Solid	12/05/12 14:20	12/06/12 09:00
280-36640-32	SL-636-SA6-SB-0.0-0.5	Solid	12/05/12 12:40	12/06/12 09:00
280-36640-33	SL-636-SA6-SB-0.0-0.5	Solid	12/05/12 12:40	12/06/12 09:00
280-36640-34	SL-636-SA6-SB-2.5-3.5	Solid	12/05/12 13:15	12/06/12 09:00
280-36640-35	SL-636-SA6-SB-2.5-3.5	Solid	12/05/12 13:15	12/06/12 09:00
280-36640-36	SL-636-SA6-SB-3.0	Solid	12/05/12 13:20	12/06/12 09:00
280-36640-37	EB-120512	Water	12/05/12 14:00	12/06/12 09:00

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-2**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.29**	**J**	10	0.27	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
2-Methylnaphthalene	**0.49**	**J B**	10	0.32	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Acenaphthene	ND		10	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Acenaphthylene	ND		10	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Anthracene	ND		10	0.75	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Benzo[a]anthracene	**6.0**	**J**	10	0.94	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Benzo[a]pyrene	**7.0**	**J**	10	0.77	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Benzo[b]fluoranthene	**10**		10	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Benzo[g,h,i]perylene	**8.1**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Benzo[k]fluoranthene	**3.8**	**J**	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Chrysene	**6.7**	**J**	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Dibenz(a,h)anthracene	ND		10	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Fluoranthene	**7.3**	**J**	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Fluorene	ND		10	0.49	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Indeno[1,2,3-cd]pyrene	**5.3**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Naphthalene	**0.35**	**J**	10	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Phenanthrene	**1.4**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1
Pyrene	**7.8**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*45 - 130*	*12/10/12 17:15*	*12/16/12 10:26*	*1*
Nitrobenzene-d5	*66*		*40 - 130*	*12/10/12 17:15*	*12/16/12 10:26*	*1*
Terphenyl-d14	*88*		*45 - 130*	*12/10/12 17:15*	*12/16/12 10:26*	*1*

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-4**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.26	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
2-Methylnaphthalene	ND		10	0.31	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Benzo[a]pyrene	ND		10	0.75	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 10:51	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		45 - 130	12/10/12 17:15	12/16/12 10:51	1
Nitrobenzene-d5	69		40 - 130	12/10/12 17:15	12/16/12 10:51	1
Terphenyl-d14	80		45 - 130	12/10/12 17:15	12/16/12 10:51	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-7**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Anthracene	ND		11	0.77	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Benzo[a]anthracene	ND		11	0.96	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Benzo[a]pyrene	ND		11	0.79	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Naphthalene	ND		11	0.35	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		45 - 130	12/10/12 17:15	12/16/12 11:16	1
Nitrobenzene-d5	68		40 - 130	12/10/12 17:15	12/16/12 11:16	1
Terphenyl-d14	79		45 - 130	12/10/12 17:15	12/16/12 11:16	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-10**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.29	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
2-Methylnaphthalene	ND		11	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Anthracene	ND		11	0.80	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Benzo[a]pyrene	ND		11	0.82	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Naphthalene	ND		11	0.36	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-10**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*45 - 130*	*12/10/12 17:15*	*12/16/12 11:41*	*1*
Nitrobenzene-d5	*71*		*40 - 130*	*12/10/12 17:15*	*12/16/12 11:41*	*1*
Terphenyl-d14	*79*		*45 - 130*	*12/10/12 17:15*	*12/16/12 11:41*	*1*

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-13**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Anthracene	ND		11	0.77	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Benzo[a]anthracene	ND		11	0.96	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Benzo[a]pyrene	ND		11	0.79	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Naphthalene	ND		11	0.35	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*45 - 130*	*12/10/12 17:15*	*12/16/12 12:56*	*1*
Nitrobenzene-d5	*65*		*40 - 130*	*12/10/12 17:15*	*12/16/12 12:56*	*1*
Terphenyl-d14	*78*		*45 - 130*	*12/10/12 17:15*	*12/16/12 12:56*	*1*

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-16**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.29	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
2-Methylnaphthalene	**0.48**	**J B**	11	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Anthracene	ND		11	0.80	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Benzo[a]pyrene	ND		11	0.82	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-16**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Fluoranthene	**1.2**	**J**	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Naphthalene	**0.64**	**J**	11	0.36	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*45 - 130*	*12/10/12 17:15*	*12/16/12 13:21*	*1*
Nitrobenzene-d5	*63*		*40 - 130*	*12/10/12 17:15*	*12/16/12 13:21*	*1*
Terphenyl-d14	*71*		*45 - 130*	*12/10/12 17:15*	*12/16/12 13:21*	*1*

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-18**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.34**	**J**	10	0.26	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
2-Methylnaphthalene	**0.99**	**J B**	10	0.31	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Acenaphthylene	**0.39**	**J**	10	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Anthracene	ND		10	0.73	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Benzo[a]anthracene	**1.3**	**J**	10	0.92	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Benzo[a]pyrene	**1.8**	**J**	10	0.75	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Benzo[b]fluoranthene	**4.1**	**J**	10	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Benzo[g,h,i]perylene	**5.4**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Chrysene	**2.5**	**J**	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Fluoranthene	**2.9**	**J**	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Indeno[1,2,3-cd]pyrene	**3.1**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Naphthalene	**0.91**	**J**	10	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Phenanthrene	**1.7**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1
Pyrene	**4.1**	**J**	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*45 - 130*	*12/10/12 17:15*	*12/16/12 13:46*	*1*
Nitrobenzene-d5	*69*		*40 - 130*	*12/10/12 17:15*	*12/16/12 13:46*	*1*
Terphenyl-d14	*81*		*45 - 130*	*12/10/12 17:15*	*12/16/12 13:46*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-20**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.0	J	10	0.26	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
2-Methylnaphthalene	3.0	J B	10	0.31	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Acenaphthylene	0.87	J	10	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Anthracene	1.4	J	10	0.73	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Benzo[a]anthracene	5.5	J	10	0.91	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Benzo[a]pyrene	5.4	J	10	0.75	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Benzo[b]fluoranthene	11		10	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Benzo[g,h,i]perylene	9.6	J	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Benzo[k]fluoranthene	3.1	J	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Chrysene	8.7	J	10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Fluoranthene	11		10	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Fluorene	0.55	J	10	0.48	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Indeno[1,2,3-cd]pyrene	6.3	J	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Naphthalene	1.8	J	10	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
N-Nitrosodimethylamine	ND		10	2.4	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Phenanthrene	4.1	J	10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1
Pyrene	15		10	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*45 - 130*	*12/10/12 17:15*	*12/16/12 14:11*	*1*
Nitrobenzene-d5	*69*		*40 - 130*	*12/10/12 17:15*	*12/16/12 14:11*	*1*
Terphenyl-d14	*81*		*45 - 130*	*12/10/12 17:15*	*12/16/12 14:11*	*1*

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-23**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
2-Methylnaphthalene	ND		11	0.33	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Acenaphthylene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Anthracene	ND		11	0.76	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Benzo[a]anthracene	ND		11	0.95	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Benzo[a]pyrene	ND		11	0.78	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Fluorene	ND		11	0.50	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Naphthalene	ND		11	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
N-Nitrosodimethylamine	ND		11	2.5	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 14:36	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		45 - 130	12/10/12 17:15	12/16/12 14:36	1
Nitrobenzene-d5	69		40 - 130	12/10/12 17:15	12/16/12 14:36	1
Terphenyl-d14	99		45 - 130	12/10/12 17:15	12/16/12 14:36	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-25**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.33	J	11	0.29	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
2-Methylnaphthalene	0.77	J B	11	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Acenaphthylene	0.23	J	11	0.19	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Anthracene	ND		11	0.79	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Benzo[a]anthracene	1.0	J	11	0.99	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Benzo[a]pyrene	1.3	J	11	0.81	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Benzo[b]fluoranthene	3.0	J	11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Benzo[g,h,i]perylene	3.6	J	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Chrysene	2.2	J	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Fluoranthene	2.3	J	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Indeno[1,2,3-cd]pyrene	2.1	J	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Naphthalene	0.67	J	11	0.36	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Phenanthrene	1.5	J	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1
Pyrene	3.3	J	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		45 - 130	12/10/12 17:15	12/16/12 15:02	1
Nitrobenzene-d5	65		40 - 130	12/10/12 17:15	12/16/12 15:02	1
Terphenyl-d14	82		45 - 130	12/10/12 17:15	12/16/12 15:02	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-27**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.6	J	9.7	0.25	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
2-Methylnaphthalene	4.5	J B	9.7	0.30	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Acenaphthene	0.41	J	9.7	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Acenaphthylene	2.4	J	9.7	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Anthracene	3.9	J	9.7	0.70	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Benzo[a]anthracene	8.0	J	9.7	0.87	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Benzo[a]pyrene	9.2	J	9.7	0.72	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Benzo[b]fluoranthene	20		9.7	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Benzo[g,h,i]perylene	17		9.7	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Benzo[k]fluoranthene	4.5	J	9.7	0.97	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Chrysene	16		9.7	0.97	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Dibenz(a,h)anthracene	ND		9.7	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Fluoranthene	23		9.7	0.97	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Fluorene	1.3	J	9.7	0.46	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Indeno[1,2,3-cd]pyrene	10		9.7	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Naphthalene	3.2	J	9.7	0.32	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-27**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		9.7	2.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Phenanthrene	**8.7**	**J**	9.7	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1
Pyrene	**33**		9.7	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*45 - 130*	*12/10/12 17:15*	*12/16/12 15:27*	*1*
Nitrobenzene-d5	*56*		*40 - 130*	*12/10/12 17:15*	*12/16/12 15:27*	*1*
Terphenyl-d14	*68*		*45 - 130*	*12/10/12 17:15*	*12/16/12 15:27*	*1*

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-30**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**2.0**	**J**	12	0.31	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
2-Methylnaphthalene	**3.2**	**J B**	12	0.37	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Acenaphthene	ND		12	0.19	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Acenaphthylene	**2.4**	**J**	12	0.20	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Anthracene	**2.9**	**J**	12	0.86	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Benzo[a]anthracene	**3.9**	**J**	12	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Benzo[a]pyrene	**4.0**	**J**	12	0.89	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Benzo[b]fluoranthene	**9.2**	**J**	12	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Benzo[g,h,i]perylene	**5.1**	**J**	12	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Benzo[k]fluoranthene	**2.6**	**J**	12	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Chrysene	**11**	**J**	12	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Dibenz(a,h)anthracene	ND		12	1.6	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Fluoranthene	**14**		12	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Fluorene	ND		12	0.56	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Indeno[1,2,3-cd]pyrene	**4.1**	**J**	12	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Naphthalene	**5.6**	**J**	12	0.39	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
N-Nitrosodimethylamine	ND		12	2.9	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Phenanthrene	**9.1**	**J**	12	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1
Pyrene	**13**		12	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*45 - 130*	*12/10/12 17:15*	*12/16/12 15:51*	*1*
Nitrobenzene-d5	*114*		*40 - 130*	*12/10/12 17:15*	*12/16/12 15:51*	*1*
Terphenyl-d14	*61*		*45 - 130*	*12/10/12 17:15*	*12/16/12 15:51*	*1*

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-32**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.70**	**J**	11	0.29	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
2-Methylnaphthalene	**1.2**	**J B**	11	0.34	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Anthracene	**1.0**	**J**	11	0.80	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Benzo[a]anthracene	**3.1**	**J**	11	1.0	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Benzo[a]pyrene	**2.4**	**J**	11	0.82	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Benzo[b]fluoranthene	**4.8**	**J**	11	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-32**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	**3.2**	**J**	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Benzo[k]fluoranthene	**2.3**	**J**	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Chrysene	**6.2**	**J**	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Fluoranthene	**6.7**	**J**	11	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Indeno[1,2,3-cd]pyrene	**2.7**	**J**	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Naphthalene	**2.4**	**J**	11	0.36	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Phenanthrene	**5.5**	**J**	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1
Pyrene	**6.5**	**J**	11	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*45 - 130*	*12/10/12 17:15*	*12/16/12 16:17*	*1*
Nitrobenzene-d5	*91*		*40 - 130*	*12/10/12 17:15*	*12/16/12 16:17*	*1*
Terphenyl-d14	*62*		*45 - 130*	*12/10/12 17:15*	*12/16/12 16:17*	*1*

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-34**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.9	0.26	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
2-Methylnaphthalene	ND		9.9	0.30	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Acenaphthene	ND		9.9	0.16	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Acenaphthylene	ND		9.9	0.17	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Anthracene	ND		9.9	0.71	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Benzo[a]anthracene	ND		9.9	0.89	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Benzo[a]pyrene	ND		9.9	0.73	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Benzo[b]fluoranthene	ND		9.9	1.2	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Benzo[g,h,i]perylene	ND		9.9	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Benzo[k]fluoranthene	ND		9.9	0.99	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Chrysene	ND		9.9	0.99	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Dibenz(a,h)anthracene	ND		9.9	1.3	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Fluoranthene	ND		9.9	0.99	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Fluorene	ND		9.9	0.46	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Indeno[1,2,3-cd]pyrene	ND		9.9	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Naphthalene	ND		9.9	0.32	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
N-Nitrosodimethylamine	ND		9.9	2.4	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Phenanthrene	ND		9.9	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1
Pyrene	ND		9.9	1.1	ug/Kg	☼	12/10/12 17:15	12/16/12 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*45 - 130*	*12/10/12 17:15*	*12/16/12 16:42*	*1*
Nitrobenzene-d5	*58*		*40 - 130*	*12/10/12 17:15*	*12/16/12 16:42*	*1*
Terphenyl-d14	*68*		*45 - 130*	*12/10/12 17:15*	*12/16/12 16:42*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.0087**	**J**	0.10	0.0059	ug/L		12/06/12 17:00	12/11/12 05:51	1
2-Methylnaphthalene	**0.0081**	**J**	0.10	0.0053	ug/L		12/06/12 17:00	12/11/12 05:51	1
Acenaphthene	**0.016**	**J**	0.10	0.011	ug/L		12/06/12 17:00	12/11/12 05:51	1
Acenaphthylene	ND		0.10	0.010	ug/L		12/06/12 17:00	12/11/12 05:51	1
Anthracene	ND		0.10	0.015	ug/L		12/06/12 17:00	12/11/12 05:51	1
Benzo[a]anthracene	ND		0.10	0.0033	ug/L		12/06/12 17:00	12/11/12 05:51	1
Benzo[a]pyrene	ND		0.10	0.0053	ug/L		12/06/12 17:00	12/11/12 05:51	1
Benzo[b]fluoranthene	ND		0.10	0.0036	ug/L		12/06/12 17:00	12/11/12 05:51	1
Benzo[g,h,i]perylene	ND		0.10	0.0037	ug/L		12/06/12 17:00	12/11/12 05:51	1
Benzo[k]fluoranthene	ND		0.10	0.0052	ug/L		12/06/12 17:00	12/11/12 05:51	1
Chrysene	ND		0.10	0.0033	ug/L		12/06/12 17:00	12/11/12 05:51	1
Dibenz(a,h)anthracene	ND		0.10	0.0050	ug/L		12/06/12 17:00	12/11/12 05:51	1
Fluoranthene	ND		0.10	0.0047	ug/L		12/06/12 17:00	12/11/12 05:51	1
Fluorene	**0.021**	**J**	0.10	0.020	ug/L		12/06/12 17:00	12/11/12 05:51	1
Indeno[1,2,3-cd]pyrene	ND		0.10	0.015	ug/L		12/06/12 17:00	12/11/12 05:51	1
Naphthalene	**0.046**	**J**	0.10	0.0055	ug/L		12/06/12 17:00	12/11/12 05:51	1
N-Nitrosodimethylamine	ND		0.42	0.14	ug/L		12/06/12 17:00	12/11/12 05:51	1
Phenanthrene	**0.019**	**J B**	0.10	0.010	ug/L		12/06/12 17:00	12/11/12 05:51	1
Pyrene	ND		0.10	0.0084	ug/L		12/06/12 17:00	12/11/12 05:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*45 - 130*	*12/06/12 17:00*	*12/11/12 05:51*	*1*
Nitrobenzene-d5	*111*		*40 - 130*	*12/06/12 17:00*	*12/11/12 05:51*	*1*
Terphenyl-d14	*89*		*45 - 130*	*12/06/12 17:00*	*12/11/12 05:51*	*1*

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-2**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**9.2**		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-4**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-7**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-10**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-13**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-16**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-18**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	2.7		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-20**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	7.7		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-23**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-25**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.9		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-27**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	13		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-30**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	5.7		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-32**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	3.5		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-34**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/17/12 16:09	1

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.00010	0.0000032	ug/L			12/17/12 16:09	1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: TB-120512 — **Lab Sample ID: 280-36640-1**
Date Collected: 12/05/12 08:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/07/12 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*82 - 110*		*12/07/12 20:11*	*1*

Client Sample ID: SL-519-SA6-SB-4.5 — **Lab Sample ID: 280-36640-6**
Date Collected: 12/05/12 09:44 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**0.39**	**J**	0.92	0.30	mg/Kg	☼	12/06/12 21:35	12/11/12 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*77 - 123*	*12/06/12 21:35*	*12/11/12 19:18*	*1*

Client Sample ID: SL-519-SA6-SB-9.5 — **Lab Sample ID: 280-36640-9**
Date Collected: 12/05/12 09:54 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.1	0.34	mg/Kg	☼	12/06/12 21:35	12/11/12 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*89*		*77 - 123*	*12/06/12 21:35*	*12/11/12 19:48*	*1*

Client Sample ID: SL-519-SA6-SB-14.5 — **Lab Sample ID: 280-36640-12**
Date Collected: 12/05/12 09:59 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**0.50**	**J**	1.1	0.34	mg/Kg	☼	12/06/12 21:35	12/11/12 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*77 - 123*	*12/06/12 21:35*	*12/11/12 20:17*	*1*

Client Sample ID: SL-519-SA6-SB-21.5 — **Lab Sample ID: 280-36640-15**
Date Collected: 12/05/12 10:04 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/06/12 21:35	12/11/12 20:47	1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		77 - 123	12/06/12 21:35	12/11/12 20:47	1

Client Sample ID: SL-633-SA6-SB-3.0 — **Lab Sample ID: 280-36640-22**
Date Collected: 12/05/12 10:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/06/12 21:35	12/11/12 21:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		77 - 123	12/06/12 21:35	12/11/12 21:17	1

Client Sample ID: SL-634-SA6-SB-2.5 — **Lab Sample ID: 280-36640-29**
Date Collected: 12/05/12 14:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.2	0.37	mg/Kg	☼	12/06/12 21:35	12/11/12 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		77 - 123	12/06/12 21:35	12/11/12 21:47	1

Client Sample ID: SL-636-SA6-SB-3.0 — **Lab Sample ID: 280-36640-36**
Date Collected: 12/05/12 13:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.34	mg/Kg	☼	12/06/12 21:35	12/11/12 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		77 - 123	12/06/12 21:35	12/11/12 22:16	1

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/07/12 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		82 - 110		12/07/12 20:41	1

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-2**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**48**		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1
EFH (C15-C20)	ND		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1
EFH (C21-C30)	**23**		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1
Total Petroleum Hydrocarbons (C8-C40)	**72**	**B**	4.3	0.73	mg/Kg	☼	12/11/12 11:10	12/13/12 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		49 - 115	12/11/12 11:10	12/13/12 01:55	1

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-4**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**6.4**	**J**	10	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1
EFH (C21-C30)	**1.4**	**J**	5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1
Total Petroleum Hydrocarbons (C8-C40)	**9.2**	**B**	4.2	0.71	mg/Kg	☼	12/11/12 11:10	12/13/12 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*49 - 115*	*12/11/12 11:10*	*12/13/12 02:19*	*1*

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-7**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**1.1**	**J**	10	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1
EFH (C21-C30)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1
Total Petroleum Hydrocarbons (C8-C40)	**1.9**	**J B**	4.2	0.70	mg/Kg	☼	12/11/12 11:10	12/13/12 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*49 - 115*	*12/11/12 11:10*	*12/13/12 02:43*	*1*

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-10**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**7.5**	**J**	11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1
EFH (C12-C14)	ND		5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1
EFH (C15-C20)	ND		5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1
EFH (C21-C30)	**1.2**	**J**	5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1
EFH (C8-C11)	ND		5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1
Total Petroleum Hydrocarbons (C8-C40)	**9.2**	**B**	4.4	0.75	mg/Kg	☼	12/11/12 11:10	12/13/12 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*49 - 115*	*12/11/12 11:10*	*12/13/12 03:07*	*1*

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-13**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1
EFH (C21-C30)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1
Total Petroleum Hydrocarbons (C8-C40)	**0.99**	**J B**	4.3	0.73	mg/Kg	☼	12/11/12 11:10	12/13/12 03:32	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		49 - 115	12/11/12 11:10	12/13/12 03:32	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-16**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	20		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1
EFH (C12-C14)	ND		5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1
EFH (C15-C20)	1.7	J	5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1
EFH (C21-C30)	4.5	J	5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1
EFH (C8-C11)	ND		5.5	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1
Total Petroleum Hydrocarbons (C8-C40)	27	B	4.4	0.74	mg/Kg	☼	12/11/12 11:10	12/13/12 03:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		49 - 115	12/11/12 11:10	12/13/12 03:56	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-18**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	15		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1
EFH (C15-C20)	2.5	J	5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1
EFH (C21-C30)	15		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1
Total Petroleum Hydrocarbons (C8-C40)	33	B	4.2	0.72	mg/Kg	☼	12/11/12 11:10	12/13/12 04:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	97		49 - 115	12/11/12 11:10	12/13/12 04:20	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-20**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	62		10	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1
EFH (C15-C20)	2.8	J	5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1
EFH (C21-C30)	54		5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1
Total Petroleum Hydrocarbons (C8-C40)	120	B	4.0	0.68	mg/Kg	☼	12/11/12 11:10	12/13/12 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	106		49 - 115	12/11/12 11:10	12/13/12 04:44	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-23**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	11		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-23**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	4.8	J	5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1
Total Petroleum Hydrocarbons (C8-C40)	16	B	4.3	0.72	mg/Kg	☼	12/11/12 11:10	12/13/12 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*49 - 115*	*12/11/12 11:10*	*12/13/12 05:57*	*1*

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-25**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	13		11	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1
EFH (C15-C20)	1.1	J	5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1
EFH (C21-C30)	11		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1
Total Petroleum Hydrocarbons (C8-C40)	26	B	4.3	0.74	mg/Kg	☼	12/11/12 11:10	12/13/12 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*49 - 115*	*12/11/12 11:10*	*12/13/12 06:21*	*1*

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-27**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	39		10	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1
EFH (C12-C14)	1.4	J	5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1
EFH (C15-C20)	4.5	J	5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1
EFH (C21-C30)	39		5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1
Total Petroleum Hydrocarbons (C8-C40)	84	B	4.0	0.68	mg/Kg	☼	12/11/12 11:10	12/13/12 06:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*115*		*49 - 115*	*12/11/12 11:10*	*12/13/12 06:45*	*1*

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-30**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	49		12	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1
EFH (C12-C14)	ND		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1
EFH (C15-C20)	5.1	J	5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1
EFH (C21-C30)	26		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1
EFH (C8-C11)	ND		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1
Total Petroleum Hydrocarbons (C8-C40)	81	B	4.7	0.80	mg/Kg	☼	12/11/12 11:10	12/13/12 07:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*49 - 115*	*12/11/12 11:10*	*12/13/12 07:09*	*1*

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-32**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**27**		12	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1
EFH (C12-C14)	ND		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1
EFH (C15-C20)	**3.0**	**J**	5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1
EFH (C21-C30)	**17**		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1
EFH (C8-C11)	ND		5.9	1.2	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1
Total Petroleum Hydrocarbons (C8-C40)	**49**	**B**	4.7	0.80	mg/Kg	☼	12/11/12 11:10	12/13/12 07:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*49 - 115*	*12/11/12 11:10*	*12/13/12 07:34*	*1*

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-34**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**6.0**	**J**	10	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1
EFH (C21-C30)	**2.4**	**J**	5.1	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1
Total Petroleum Hydrocarbons (C8-C40)	**9.4**	**B**	4.1	0.69	mg/Kg	☼	12/11/12 11:10	12/13/12 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*49 - 115*	*12/11/12 11:10*	*12/13/12 07:58*	*1*

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1
EFH (C12-C14)	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1
EFH (C15-C20)	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1
EFH (C21-C30)	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1
EFH (C8-C11)	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1
Total Petroleum Hydrocarbons (C8-C40)	ND		0.28	0.11	mg/L		12/11/12 10:47	12/12/12 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 115*	*12/11/12 10:47*	*12/12/12 23:54*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.6	0.59	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
4,4'-DDE	ND		3.6	0.26	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Aldrin	ND		1.8	0.27	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
alpha-BHC	ND		1.8	0.23	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
beta-BHC	ND		1.8	0.72	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		1.8	0.44	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Dieldrin	ND		3.6	0.23	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endosulfan I	ND		1.8	0.19	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endosulfan II	ND		3.6	0.31	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endosulfan sulfate	ND		3.6	0.30	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endrin	ND		3.6	0.33	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endrin aldehyde	ND		3.6	0.19	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Endrin ketone	ND		3.6	0.53	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
gamma-BHC (Lindane)	ND		1.8	0.50	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Heptachlor	ND		1.8	0.23	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Heptachlor epoxide	ND		1.8	0.46	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Mirex	ND		1.8	0.29	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1
Technical Chlordane	ND		18	8.5	ug/Kg	☼	12/10/12 13:25	12/15/12 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*20 - 120*	*12/10/12 13:25*	*12/15/12 06:56*	*1*
DCB Decachlorobiphenyl	*88*		*20 - 120*	*12/10/12 13:25*	*12/15/12 06:56*	*1*
Tetrachloro-m-xylene	*84*		*50 - 130*	*12/10/12 13:25*	*12/15/12 06:56*	*1*
Tetrachloro-m-xylene	*84*		*50 - 130*	*12/10/12 13:25*	*12/15/12 06:56*	*1*

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.54	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
4,4'-DDE	ND		3.3	0.24	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
4,4'-DDT	ND		3.3	0.58	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Aldrin	ND		1.7	0.25	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
alpha-BHC	ND		1.7	0.21	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
beta-BHC	ND		1.7	0.66	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
delta-BHC	**0.62**	**J p**	1.7	0.40	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Dieldrin	ND		3.3	0.21	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endosulfan I	ND		1.7	0.17	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endosulfan II	ND		3.3	0.28	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endosulfan sulfate	ND		3.3	0.27	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endrin	ND		3.3	0.30	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endrin aldehyde	ND		3.3	0.17	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Endrin ketone	ND		3.3	0.48	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Heptachlor	ND		1.7	0.21	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Heptachlor epoxide	ND		1.7	0.42	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Methoxychlor	ND		6.6	0.44	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Mirex	ND		1.7	0.26	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Technical Chlordane	ND		17	7.7	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1
Toxaphene	ND		49	16	ug/Kg	☼	12/10/12 13:25	12/17/12 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*20 - 120*	*12/10/12 13:25*	*12/17/12 19:39*	*1*
DCB Decachlorobiphenyl	*97*		*20 - 120*	*12/10/12 13:25*	*12/17/12 19:39*	*1*
Tetrachloro-m-xylene	*90*		*50 - 130*	*12/10/12 13:25*	*12/17/12 19:39*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	117		50 - 130	12/10/12 13:25	12/17/12 19:39	1

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.054	0.0083	ug/L		12/07/12 16:22	12/11/12 22:32	1
4,4'-DDE	ND		0.054	0.0081	ug/L		12/07/12 16:22	12/11/12 22:32	1
4,4'-DDT	ND		0.054	0.016	ug/L		12/07/12 16:22	12/11/12 22:32	1
Aldrin	ND		0.054	0.0063	ug/L		12/07/12 16:22	12/11/12 22:32	1
alpha-BHC	ND		0.054	0.0057	ug/L		12/07/12 16:22	12/11/12 22:32	1
beta-BHC	ND		0.054	0.0093	ug/L		12/07/12 16:22	12/11/12 22:32	1
delta-BHC	ND		0.054	0.0062	ug/L		12/07/12 16:22	12/11/12 22:32	1
Dieldrin	ND		0.054	0.0068	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endosulfan I	ND		0.054	0.0062	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endosulfan II	ND		0.054	0.0075	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endosulfan sulfate	ND		0.054	0.0061	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endrin	ND		0.054	0.0085	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endrin aldehyde	ND		0.054	0.0095	ug/L		12/07/12 16:22	12/11/12 22:32	1
Endrin ketone	ND		0.054	0.0075	ug/L		12/07/12 16:22	12/11/12 22:32	1
gamma-BHC (Lindane)	ND		0.054	0.0074	ug/L		12/07/12 16:22	12/11/12 22:32	1
Heptachlor	ND		0.054	0.0083	ug/L		12/07/12 16:22	12/11/12 22:32	1
Heptachlor epoxide	ND		0.054	0.0081	ug/L		12/07/12 16:22	12/11/12 22:32	1
Methoxychlor	ND		0.11	0.014	ug/L		12/07/12 16:22	12/11/12 22:32	1
Mirex	ND		0.054	0.0029	ug/L		12/07/12 16:22	12/11/12 22:32	1
Technical Chlordane	ND		0.54	0.15	ug/L		12/07/12 16:22	12/11/12 22:32	1
Toxaphene	ND		2.1	0.39	ug/L		12/07/12 16:22	12/11/12 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		20 - 120	12/07/12 16:22	12/11/12 22:32	1
DCB Decachlorobiphenyl	90		20 - 120	12/07/12 16:22	12/11/12 22:32	1
Tetrachloro-m-xylene	80		60 - 140	12/07/12 16:22	12/11/12 22:32	1
Tetrachloro-m-xylene	76		60 - 140	12/07/12 16:22	12/11/12 22:32	1

Method: 8081B - Organochlorine Pesticides (GC) - DL

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		36	6.4	ug/Kg	☼	12/10/12 13:25	12/17/12 20:14	10
Methoxychlor	ND		73	4.9	ug/Kg	☼	12/10/12 13:25	12/17/12 20:14	10
Toxaphene	ND		540	170	ug/Kg	☼	12/10/12 13:25	12/17/12 20:14	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	59	D	20 - 120	12/10/12 13:25	12/17/12 20:14	10
DCB Decachlorobiphenyl	30	D	20 - 120	12/10/12 13:25	12/17/12 20:14	10
Tetrachloro-m-xylene	130	D	50 - 130	12/10/12 13:25	12/17/12 20:14	10
Tetrachloro-m-xylene	63	D	50 - 130	12/10/12 13:25	12/17/12 20:14	10

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1242	ND		18	9.5	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1248	ND		18	5.8	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1254	**39**		18	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1260	**25**		18	2.8	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 5442	ND		52	34	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1
Aroclor 5460	**31**	**J**	52	17	ug/Kg	☼	12/10/12 13:25	12/14/12 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*45 - 120*	*12/10/12 13:25*	*12/14/12 20:21*	*1*
Tetrachloro-m-xylene	*101*		*45 - 120*	*12/10/12 13:25*	*12/14/12 20:21*	*1*

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-5**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1242	ND		18	9.5	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1248	ND		18	5.8	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1254	ND		18	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 5442	ND		52	34	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/10/12 13:25	12/14/12 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*12/10/12 13:25*	*12/14/12 20:42*	*1*
Tetrachloro-m-xylene	*108*		*45 - 120*	*12/10/12 13:25*	*12/14/12 20:42*	*1*

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		34	4.0	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/10/12 13:25	12/14/12 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:03*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:03*	*1*

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-11**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1242	ND		18	9.5	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1248	ND		18	5.9	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1254	ND		18	5.8	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 5442	ND		52	34	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/10/12 13:25	12/14/12 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:25*	*1*
Tetrachloro-m-xylene	*102*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:25*	*1*

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-14**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1232	ND		19	5.6	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1242	ND		19	9.9	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1248	ND		19	6.1	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1254	ND		19	6.0	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 5442	ND		55	35	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/10/12 13:25	12/14/12 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:46*	*1*
Tetrachloro-m-xylene	*100*		*45 - 120*	*12/10/12 13:25*	*12/14/12 21:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1221	ND		37	17	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1248	ND		19	6.3	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1254	ND		19	6.2	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 1268	ND		37	4.4	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 5432	ND		56	18	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 5442	ND		56	36	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1
Aroclor 5460	ND		56	18	ug/Kg	☼	12/10/12 13:25	12/14/12 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:07*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:07*	*1*

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-19**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1254	**46**		17	5.7	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 1268	ND		34	4.0	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/10/12 13:25	12/14/12 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:29*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:29*	*1*

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1221	ND		33	16	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1242	ND		17	9.1	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1248	ND		17	5.6	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1254	**33**		17	5.5	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1260	ND		17	2.6	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		33	3.9	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 5432	ND		50	16	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 5442	ND		50	32	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1
Aroclor 5460	ND		50	16	ug/Kg	☼	12/10/12 13:25	12/14/12 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:50*	*1*
Tetrachloro-m-xylene	*114*		*45 - 120*	*12/10/12 13:25*	*12/14/12 22:50*	*1*

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-24**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.4	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1221	ND		35	16	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1232	ND		18	5.4	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1242	ND		18	9.6	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1248	ND		18	5.9	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1254	**58**		18	5.8	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1260	**99**		18	2.8	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 5432	ND		53	17	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 5442	ND		53	34	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1
Aroclor 5460	**38**	**J**	53	17	ug/Kg	☼	12/10/12 13:25	12/14/12 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:12*	*1*
Tetrachloro-m-xylene	*97*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:12*	*1*

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1232	ND		18	5.6	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1254	**38**		18	6.0	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/10/12 13:25	12/14/12 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:33*	*1*
Tetrachloro-m-xylene	*103*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:33*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1221	ND		33	15	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1242	ND		17	9.0	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1248	ND		17	5.5	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1254	**17**		17	5.5	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1260	ND		17	2.6	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1262	ND		33	11	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 1268	ND		33	3.9	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 5432	ND		49	16	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 5442	ND		49	32	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1
Aroclor 5460	ND		49	16	ug/Kg	☼	12/10/12 13:25	12/14/12 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:54*	*1*
Tetrachloro-m-xylene	*106*		*45 - 120*	*12/10/12 13:25*	*12/14/12 23:54*	*1*

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-31**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	6.0	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1221	ND		39	18	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1232	ND		20	6.0	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1248	ND		20	6.6	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1254	**25**		20	6.5	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1260	ND		20	3.1	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1262	ND		39	14	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 1268	ND		39	4.7	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 5432	ND		59	19	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 5442	ND		59	38	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1
Aroclor 5460	ND		59	19	ug/Kg	☼	12/10/12 13:25	12/15/12 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*58*		*45 - 120*	*12/10/12 13:25*	*12/15/12 01:41*	*1*
Tetrachloro-m-xylene	*88*		*45 - 120*	*12/10/12 13:25*	*12/15/12 01:41*	*1*

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	6.1	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1221	ND		39	19	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1232	ND		20	6.1	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1248	ND		20	6.7	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1254	**45**		20	6.6	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1260	**32**		20	3.2	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 1262	ND		39	14	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		39	4.7	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 5432	ND		60	19	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 5442	ND		60	38	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1
Aroclor 5460	ND		60	20	ug/Kg	☼	12/10/12 13:25	12/15/12 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*45 - 120*	*12/10/12 13:25*	*12/15/12 02:03*	*1*
Tetrachloro-m-xylene	*94*		*45 - 120*	*12/10/12 13:25*	*12/15/12 02:03*	*1*

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-35**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1221	ND		33	15	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1232	ND		17	5.1	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1242	ND		17	9.0	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1248	ND		17	5.6	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1254	ND		17	5.5	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1260	ND		17	2.6	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1262	ND		33	12	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 1268	ND		33	3.9	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 5432	ND		50	16	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 5442	ND		50	32	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1
Aroclor 5460	ND		50	16	ug/Kg	☼	12/10/12 13:25	12/15/12 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*12/10/12 13:25*	*12/15/12 02:24*	*1*
Tetrachloro-m-xylene	*97*		*45 - 120*	*12/10/12 13:25*	*12/15/12 02:24*	*1*

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.1	0.13	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1221	ND		1.1	0.23	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1232	ND		1.1	0.18	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1242	ND		1.1	0.11	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1248	ND		1.1	0.098	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1254	ND		1.1	0.12	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1260	ND		1.1	0.17	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1262	ND		1.1	0.091	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 1268	ND		1.1	0.39	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 5432	ND		0.54	0.18	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 5442	ND		0.54	0.24	ug/L		12/07/12 16:22	12/14/12 18:12	1
Aroclor 5460	ND		0.54	0.14	ug/L		12/07/12 16:22	12/14/12 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*12/07/12 16:22*	*12/14/12 18:12*	*1*
Tetrachloro-m-xylene	*84*		*45 - 120*	*12/07/12 16:22*	*12/14/12 18:12*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method: 8151A - Herbicides (GC)

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110	12	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
2,4-D	ND		210	75	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
2,4-DB	ND		430	40	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
Dalapon	ND		530	7.5	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
Dicamba	ND		210	7.5	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
Dichlorprop	ND		210	17	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
Dinoseb	ND		210	7.5	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
MCPA	ND		35000	11000	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
MCPP	ND		35000	11000	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5
Silvex (2,4,5-TP)	ND		110	7.5	ug/Kg	☼	12/10/12 20:00	12/14/12 20:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*80*	*D*	*50 - 150*	*12/10/12 20:00*	*12/14/12 20:13*	*5*
2,4-Dichlorophenylacetic acid	*82*	*D*	*50 - 150*	*12/10/12 20:00*	*12/14/12 20:13*	*5*

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		100	12	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
2,4-D	ND		200	71	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
2,4-DB	ND		410	38	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
Dalapon	ND		510	7.1	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
Dicamba	ND		200	7.1	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
Dichlorprop	ND		200	16	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
Dinoseb	ND		200	7.1	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
MCPA	ND		33000	10000	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
MCPP	ND		33000	10000	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5
Silvex (2,4,5-TP)	ND		100	7.1	ug/Kg	☼	12/10/12 20:00	12/14/12 20:36	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*79*	*D*	*50 - 150*	*12/10/12 20:00*	*12/14/12 20:36*	*5*
2,4-Dichlorophenylacetic acid	*81*	*D*	*50 - 150*	*12/10/12 20:00*	*12/14/12 20:36*	*5*

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		1.1	0.20	ug/L		12/06/12 14:43	12/11/12 04:39	1
2,4-D	ND		4.3	0.23	ug/L		12/06/12 14:43	12/11/12 04:39	1
2,4-DB	ND		4.3	0.39	ug/L		12/06/12 14:43	12/11/12 04:39	1
Dalapon	ND		2.1	0.98	ug/L		12/06/12 14:43	12/11/12 04:39	1
Dicamba	ND		2.1	0.16	ug/L		12/06/12 14:43	12/11/12 04:39	1
Dichlorprop	ND		4.3	0.70	ug/L		12/06/12 14:43	12/11/12 04:39	1
Dinoseb	ND		1.1	0.19	ug/L		12/06/12 14:43	12/11/12 04:39	1
MCPA	ND		430	18	ug/L		12/06/12 14:43	12/11/12 04:39	1
MCPP	ND		430	35	ug/L		12/06/12 14:43	12/11/12 04:39	1
Silvex (2,4,5-TP)	ND		1.1	0.18	ug/L		12/06/12 14:43	12/11/12 04:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*80*		*50 - 150*	*12/06/12 14:43*	*12/11/12 04:39*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*88*		*50 - 150*	*12/06/12 14:43*	*12/11/12 04:39*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	18000	1.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Boron	1.2	J	8.8	0.89	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Calcium	6100		45	13	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Iron	17000		31	3.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Lithium	18	J	33	0.27	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Magnesium	4200		9.0	3.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Manganese	240	J	450	0.090	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Phosphorus	350		9.0	1.5	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Potassium	2600	J	5800	37	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Sodium	230	J	450	53	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Strontium	22		0.45	0.033	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Tin	3.2	J	9.9	0.83	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Titanium	790		0.90	0.13	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1
Zirconium	1.7	J	7.8	0.32	mg/Kg	☼	12/11/12 08:15	12/11/12 19:10	1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-5**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000	J	20000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Boron	1.0	J	9.9	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Calcium	1700		51	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Iron	20000		35	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Lithium	20	J	38	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Magnesium	4300		10	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Manganese	270	J	500	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Phosphorus	250		10	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Potassium	2500	J	6500	42	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Sodium	150	J	510	60	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Strontium	16		0.50	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Tin	3.7	J	11	0.93	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Titanium	880		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1
Zirconium	1.9	J	8.7	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:21	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000	J	21000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Boron	ND		10	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Calcium	2200		52	15	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Iron	21000		35	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	23	J	38	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Magnesium	4700		10	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Manganese	300	J	510	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Phosphorus	410		10	1.7	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Potassium	2000	J	6600	43	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Sodium	120	J	520	61	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Strontium	18		0.51	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Tin	3.8	J	11	0.95	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Titanium	920		1.0	0.15	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1
Zirconium	1.7	J	8.9	0.37	mg/Kg	☼	12/11/12 08:15	12/11/12 19:24	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-11**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	20000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Boron	ND		9.8	0.99	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Calcium	2100		50	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Iron	19000		34	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Lithium	21	J	37	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Magnesium	4500		10	3.7	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Manganese	220	J	500	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Phosphorus	220		10	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Potassium	1600	J	6500	41	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Sodium	110	J	500	60	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Strontium	19		0.50	0.036	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Tin	3.9	J	11	0.92	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Titanium	980		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1
Zirconium	1.5	J	8.7	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:26	1

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-14**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	20000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Boron	ND		9.8	0.99	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Calcium	1600		51	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Iron	16000		34	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Lithium	18	J	37	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Magnesium	3700		10	3.7	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Manganese	260	J	500	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Phosphorus	120		10	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Potassium	1400	J	6500	42	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Sodium	140	J	510	60	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Strontium	16		0.50	0.036	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Tin	3.2	J	11	0.92	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Titanium	760		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1
Zirconium	1.2	J	8.7	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:38	1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	22000	1.7	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Boron	ND		11	1.1	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Calcium	2100		56	16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Iron	20000		38	4.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Lithium	27	J	41	0.34	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Magnesium	5000		11	4.1	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Manganese	310	J	550	0.11	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Phosphorus	480		11	1.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Potassium	4000	J	7200	46	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Sodium	86	J	560	66	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Strontium	14		0.55	0.040	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Tin	3.8	J	12	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Titanium	950		1.1	0.16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1
Zirconium	1.3	J	9.6	0.40	mg/Kg	☼	12/11/12 08:15	12/11/12 19:40	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-19**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6900	J	21000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Boron	1.1	J	10	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Calcium	1300		51	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Iron	12000		35	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Lithium	19	J	38	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Magnesium	2700		10	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Manganese	140	J	510	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Phosphorus	230		10	1.7	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Potassium	1800	J	6600	42	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Sodium	100	J	510	61	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Strontium	10		0.51	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Tin	2.8	J	11	0.94	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Titanium	580		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1
Zirconium	0.68	J	8.8	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:42	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8200	J	20000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Boron	1.1	J	9.8	0.99	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Calcium	1600		51	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Iron	21000		35	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Lithium	21	J	38	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Magnesium	3200		10	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Manganese	200	J	500	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Phosphorus	330		10	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Potassium	2100	J	6500	42	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Sodium	100	J	510	60	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Strontium	13		0.50	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Tin	3.1	J	11	0.93	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	600		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1
Zirconium	1.1	J	8.7	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:44	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-24**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	19000	1.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Boron	0.93	J	9.0	0.91	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Calcium	3000		46	13	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Iron	18000		32	3.5	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Lithium	22	J	34	0.28	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Magnesium	4300		9.3	3.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Manganese	250	J	460	0.093	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Phosphorus	280		9.3	1.5	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Potassium	2500	J	5900	38	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Sodium	130	J	460	55	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Strontium	16		0.46	0.033	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Tin	3.7	J	10	0.85	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Titanium	890		0.92	0.13	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1
Zirconium	1.5	J	8.0	0.33	mg/Kg	☼	12/11/12 08:15	12/11/12 19:47	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8000	J	20000	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Boron	1.5	J	9.9	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Calcium	1700		51	14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Iron	13000		35	3.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Lithium	21	J	38	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Magnesium	3200		10	3.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Manganese	190	J	500	0.10	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Phosphorus	280		10	1.6	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Potassium	2100	J	6500	42	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Sodium	110	J	510	60	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Strontium	15		0.50	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Tin	3.2	J	11	0.93	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Titanium	650		1.0	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1
Zirconium	0.72	J	8.7	0.36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:49	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9200	J	17000	1.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Boron	1.3	J	8.4	0.85	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Calcium	1900		43	12	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Iron	17000		30	3.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Lithium	23	J	32	0.26	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	3500		8.7	3.2	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Manganese	170	J	430	0.087	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Phosphorus	320		8.7	1.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Potassium	2400	J	5600	36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Sodium	130	J	430	51	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Strontium	15		0.43	0.031	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Tin	3.1	J	9.5	0.79	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Titanium	710		0.87	0.12	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1
Zirconium	1.2	J	7.5	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 19:51	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-31**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	23000	1.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Boron	3.7	J	11	1.1	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Calcium	3500		58	16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Iron	20000		39	4.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Lithium	29	J	43	0.35	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Magnesium	5500		12	4.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Manganese	310	J	570	0.12	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Phosphorus	450		12	1.9	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Potassium	4100	J	7400	47	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Sodium	130	J	580	68	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Strontium	26		0.57	0.041	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Tin	4.2	J	13	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Titanium	1000		1.1	0.16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1
Zirconium	1.4	J	9.9	0.41	mg/Kg	☼	12/11/12 08:15	12/11/12 19:54	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	23000	1.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Boron	1.8	J	11	1.1	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Calcium	2200		57	16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Iron	19000		39	4.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Lithium	24	J	42	0.34	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Magnesium	5100		11	4.2	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Manganese	250	J	560	0.11	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Phosphorus	380		11	1.8	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Potassium	3400	J	7300	47	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Sodium	99	J	570	67	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Strontium	16		0.56	0.041	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Tin	4.1	J	12	1.0	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Titanium	1000		1.1	0.16	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1
Zirconium	1.3	J	9.8	0.40	mg/Kg	☼	12/11/12 08:15	12/11/12 19:56	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-35**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	17000	1.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Boron	1.2	J	8.4	0.85	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Calcium	2500		44	12	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Iron	20000		30	3.3	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Lithium	29	J	32	0.26	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Magnesium	5100		8.7	3.2	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Manganese	290	J	430	0.087	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Phosphorus	380		8.7	1.4	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Potassium	2900	J	5600	36	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Sodium	120	J	440	51	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Strontium	18		0.43	0.031	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Tin	3.5	J	9.5	0.79	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Titanium	880		0.87	0.12	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1
Zirconium	1.1	J	7.5	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 19:58	1

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.018	mg/L		12/11/12 08:15	12/11/12 21:37	1
Boron	0.0059	J	0.10	0.0044	mg/L		12/11/12 08:15	12/11/12 21:37	1
Calcium	ND		0.20	0.035	mg/L		12/11/12 08:15	12/11/12 21:37	1
Iron	ND		0.10	0.022	mg/L		12/11/12 08:15	12/11/12 21:37	1
Lithium	ND		0.010	0.0026	mg/L		12/11/12 08:15	12/11/12 21:37	1
Magnesium	0.012	J	0.20	0.011	mg/L		12/11/12 08:15	12/11/12 21:37	1
Manganese	0.00051	J	0.010	0.00025	mg/L		12/11/12 08:15	12/11/12 21:37	1
Phosphorus	ND		3.0	0.014	mg/L		12/11/12 08:15	12/11/12 21:37	1
Potassium	ND		3.0	0.24	mg/L		12/11/12 08:15	12/11/12 21:37	1
Sodium	0.27	J	1.0	0.092	mg/L		12/11/12 08:15	12/11/12 21:37	1
Strontium	ND		0.010	0.00030	mg/L		12/11/12 08:15	12/11/12 21:37	1
Tin	ND		0.10	0.0058	mg/L		12/11/12 08:15	12/11/12 21:37	1
Titanium	ND		0.010	0.00060	mg/L		12/11/12 08:15	12/11/12 21:37	1
Zirconium	ND		0.015	0.0024	mg/L		12/11/12 08:15	12/11/12 21:37	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.051	J B	9.4	0.015	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Arsenic	4.2	J	16	0.054	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Barium	85	J B	150	0.076	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Beryllium	0.58	J	1.2	0.024	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Cadmium	0.35	J	1.1	0.010	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Chromium	16	J B	40	0.082	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Cobalt	5.9	J B	23	0.0071	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Copper	11	J B	31	0.076	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Lead	12	J B	37	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Molybdenum	0.59	J	5.7	0.019	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	10	J B	31	0.027	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Selenium	0.18	J	0.70	0.14	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Silver	0.035	J	0.85	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Thallium	0.28	J B	0.49	0.0038	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Vanadium	31	J B	67	0.041	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1
Zinc	88	J B	120	0.34	mg/Kg	☼	12/11/12 08:15	12/11/12 16:43	1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-5**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026	J B	7.9	0.013	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Arsenic	4.2	J	14	0.046	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Barium	100	J B	130	0.064	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Beryllium	0.83	J	1.0	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Cadmium	0.096	J	0.91	0.0085	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Chromium	19	J B	33	0.069	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Cobalt	6.2	J B	19	0.0060	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Copper	7.9	J B	26	0.064	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Lead	5.2	J B	31	0.016	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Molybdenum	0.62	J	4.8	0.016	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Nickel	12	J B	26	0.023	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Selenium	0.12	J	0.59	0.12	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Silver	0.030	J	0.72	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Thallium	0.30	J B	0.42	0.0032	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Vanadium	35	J B	56	0.035	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1
Zinc	50	J B	100	0.29	mg/Kg	☼	12/11/12 08:15	12/11/12 17:04	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.019	J B	8.2	0.013	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Arsenic	4.0	J	14	0.048	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Barium	88	J B	130	0.066	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Beryllium	0.64	J	1.0	0.021	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Cadmium	0.064	J	0.94	0.0088	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Chromium	19	J B	35	0.071	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Cobalt	5.7	J B	20	0.0062	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Copper	6.3	J B	27	0.067	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Lead	4.5	J B	32	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Molybdenum	0.42	J	5.0	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Nickel	12	J B	27	0.024	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Selenium	ND		0.62	0.12	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Silver	0.023	J	0.74	0.019	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Thallium	0.25	J B	0.43	0.0033	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Vanadium	36	J B	58	0.036	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1
Zinc	43	J B	100	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 17:08	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-11**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.018	J B	8.5	0.014	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Arsenic	3.7	J	15	0.049	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Barium	78	J B	140	0.069	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Beryllium	0.64	J	1.1	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Cadmium	0.045	J	0.97	0.0091	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Chromium	19	J B	36	0.074	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Cobalt	5.3	J B	20	0.0065	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Copper	6.3	J B	28	0.069	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Lead	4.4	J B	33	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Molybdenum	0.53	J	5.2	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Nickel	9.5	J B	28	0.025	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Selenium	0.13	J	0.64	0.13	mg/Kg	☼	12/11/12 08:15	12/12/12 12:16	1
Silver	0.029	J	0.77	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Thallium	0.24	J B	0.45	0.0034	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Vanadium	36	J B	60	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1
Zinc	43	J B	110	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 17:25	1

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-14**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	J B	9.1	0.015	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Arsenic	3.4	J	16	0.053	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Barium	64	J B	150	0.073	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Beryllium	0.60	J	1.1	0.023	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Cadmium	0.022	J	1.0	0.0098	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Chromium	16	J B	38	0.079	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Cobalt	5.0	J B	22	0.0069	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Copper	6.6	J B	30	0.074	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Lead	4.0	J B	35	0.019	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Molybdenum	0.24	J	5.5	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Nickel	8.1	J B	30	0.026	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Selenium	ND		0.68	0.14	mg/Kg	☼	12/11/12 08:15	12/12/12 12:32	1
Silver	0.032	J	0.82	0.021	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Thallium	0.18	J B	0.48	0.0037	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Vanadium	30	J B	65	0.040	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1
Zinc	40	J B	110	0.33	mg/Kg	☼	12/11/12 08:15	12/11/12 17:29	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.025	J B	8.6	0.014	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Arsenic	7.1	J	15	0.050	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Barium	76	J B	140	0.070	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Beryllium	0.60	J	1.1	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Cadmium	0.15	J	0.99	0.0093	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Chromium	22	J B	36	0.075	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Cobalt	6.0	J B	21	0.0066	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Copper	9.5	J B	29	0.071	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.6	J B	34	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Molybdenum	0.41	J	5.3	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Nickel	17	J B	29	0.025	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Selenium	0.18	J	0.65	0.13	mg/Kg	☼	12/11/12 08:15	12/12/12 12:44	1
Silver	0.065	J	0.78	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Thallium	0.25	J B	0.46	0.0035	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Vanadium	36	J B	61	0.038	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1
Zinc	57	J B	110	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 17:33	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-19**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.013	J B	8.4	0.013	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Arsenic	3.6	J	14	0.049	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Barium	55	J B	130	0.068	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Beryllium	0.33	J	1.1	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Cadmium	0.33	J	0.96	0.0090	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Chromium	12	J B	35	0.073	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Cobalt	3.4	J B	20	0.0064	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Copper	7.2	J B	28	0.068	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Lead	9.0	J B	33	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Molybdenum	0.40	J	5.1	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Nickel	7.8	J B	28	0.024	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Selenium	ND		0.63	0.13	mg/Kg	☼	12/11/12 08:15	12/12/12 12:48	1
Silver	1.7		0.76	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Thallium	0.15	J B	0.44	0.0034	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Vanadium	18	J B	60	0.037	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1
Zinc	58	J B	110	0.30	mg/Kg	☼	12/11/12 08:15	12/11/12 17:37	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.014	J B	7.5	0.012	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Arsenic	3.7	J	13	0.044	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Barium	47	J B	120	0.061	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Beryllium	0.36	J	0.95	0.019	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Cadmium	0.39	J	0.86	0.0081	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Chromium	12	J B	32	0.066	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Cobalt	4.9	J B	18	0.0057	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Copper	8.3	J B	25	0.061	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Lead	9.0	J B	29	0.016	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Molybdenum	0.43	J	4.6	0.015	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Nickel	8.6	J B	25	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Selenium	0.15	J	0.57	0.11	mg/Kg	☼	12/11/12 08:15	12/12/12 12:53	1
Silver	2.0		0.68	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Thallium	0.14	J B	0.40	0.0030	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Vanadium	19	J B	54	0.033	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1
Zinc	64	J B	95	0.27	mg/Kg	☼	12/11/12 08:15	12/11/12 17:41	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-24**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.029	J B	8.6	0.014	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Arsenic	4.2	J	15	0.050	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Barium	81	J B	140	0.070	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Beryllium	0.56	J	1.1	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Cadmium	0.28	J	0.99	0.0093	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Chromium	16	J B	36	0.075	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Cobalt	6.1	J B	21	0.0066	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Copper	8.7	J B	29	0.070	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Lead	24	J B	34	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Molybdenum	0.56	J	5.2	0.017	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Nickel	10	J B	29	0.025	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Selenium	ND		0.65	0.13	mg/Kg	☼	12/11/12 08:15	12/12/12 12:58	1
Silver	0.12	J	0.78	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Thallium	0.20	J B	0.45	0.0035	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Vanadium	31	J B	61	0.038	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1
Zinc	150	B	110	0.31	mg/Kg	☼	12/11/12 08:15	12/11/12 17:45	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.019	J B	9.5	0.015	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Arsenic	3.3	J	16	0.056	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Barium	50	J B	150	0.077	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Beryllium	0.29	J	1.2	0.025	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Cadmium	0.33	J	1.1	0.010	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Chromium	11	J B	40	0.083	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Cobalt	3.5	J B	23	0.0073	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Copper	8.4	J B	32	0.078	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Lead	9.5	J B	37	0.020	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Molybdenum	0.33	J	5.8	0.019	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Nickel	7.7	J B	32	0.028	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Selenium	0.15	J	0.72	0.15	mg/Kg	☼	12/11/12 08:15	12/12/12 13:03	1
Silver	2.0		0.87	0.022	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Thallium	0.15	J B	0.50	0.0039	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Vanadium	18	J B	68	0.042	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1
Zinc	57	J B	120	0.35	mg/Kg	☼	12/11/12 08:15	12/11/12 17:49	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.015	J	7.8	0.013	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Arsenic	3.1	J	13	0.046	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Barium	69	J	130	0.063	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Beryllium	0.41	J	0.96	0.020	mg/Kg	☼	12/17/12 08:00	12/17/12 21:19	1
Cadmium	0.37	J	0.87	0.0082	mg/Kg	☼	12/17/12 08:00	12/17/12 21:19	1
Chromium	15	J	33	0.068	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Cobalt	4.6	J	19	0.0060	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Copper	9.3	J	26	0.064	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.8	J	31	0.016	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Molybdenum	0.47	J	4.8	0.016	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Nickel	12	J	26	0.023	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Selenium	0.77		0.57	0.12	mg/Kg	☼	12/17/12 08:00	12/17/12 21:19	1
Silver	1.9		0.71	0.018	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Thallium	0.22	J	0.41	0.0032	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1
Vanadium	23	J	54	0.033	mg/Kg	☼	12/17/12 08:00	12/17/12 21:19	1
Zinc	63	J	99	0.28	mg/Kg	☼	12/13/12 13:00	12/14/12 14:12	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-31**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.026	J	10	0.016	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Arsenic	5.9	J	18	0.059	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Barium	100	J	160	0.083	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Beryllium	0.62	J	1.2	0.025	mg/Kg	☼	12/17/12 08:00	12/17/12 21:34	1
Cadmium	0.43	J	1.1	0.010	mg/Kg	☼	12/17/12 08:00	12/17/12 21:34	1
Chromium	20	J	43	0.089	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Cobalt	6.3	J	25	0.0078	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Copper	17	J	34	0.083	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Lead	15	J	40	0.021	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Molybdenum	0.52	J	6.2	0.021	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Nickel	16	J	34	0.030	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Selenium	0.94		0.72	0.15	mg/Kg	☼	12/17/12 08:00	12/17/12 21:34	1
Silver	0.99		0.93	0.024	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Thallium	0.29	J	0.54	0.0041	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1
Vanadium	31	J	68	0.042	mg/Kg	☼	12/17/12 08:00	12/17/12 21:34	1
Zinc	79	J	130	0.37	mg/Kg	☼	12/13/12 13:00	12/14/12 14:26	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	J	9.3	0.015	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Arsenic	6.0	J	16	0.054	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Barium	98	J	150	0.075	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Beryllium	0.56	J	1.3	0.027	mg/Kg	☼	12/17/12 08:00	12/17/12 21:36	1
Cadmium	0.35	J	1.2	0.011	mg/Kg	☼	12/17/12 08:00	12/17/12 21:36	1
Chromium	20	J	39	0.081	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Cobalt	5.6	J	22	0.0071	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Copper	9.7	J	31	0.076	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Lead	15	J	36	0.019	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Molybdenum	0.59	J	5.6	0.019	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Nickel	14	J	31	0.027	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Selenium	0.78		0.77	0.16	mg/Kg	☼	12/17/12 08:00	12/17/12 21:36	1
Silver	2.3		0.84	0.022	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Thallium	0.27	J	0.49	0.0037	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1
Vanadium	33	J	73	0.045	mg/Kg	☼	12/17/12 08:00	12/17/12 21:36	1
Zinc	65	J	120	0.34	mg/Kg	☼	12/13/12 13:00	12/14/12 14:29	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-35**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.014	J B	7.8	0.013	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Arsenic	6.4	J	14	0.046	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Barium	92	J B	130	0.063	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Beryllium	0.62	J	0.99	0.020	mg/Kg	☼	12/11/12 08:15	12/12/12 14:05	1
Cadmium	0.19	J	0.90	0.0084	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Chromium	20	J B	33	0.068	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Cobalt	6.1	J B	19	0.0060	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Copper	8.6	J B	26	0.064	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Lead	5.2	J B	31	0.016	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Molybdenum	0.42	J	4.8	0.016	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Nickel	14	J B	26	0.023	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Selenium	0.22	J	0.59	0.12	mg/Kg	☼	12/11/12 08:15	12/12/12 14:05	1
Silver	0.17	J	0.71	0.018	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Thallium	0.21	J B	0.41	0.0032	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Vanadium	33	J B	56	0.035	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1
Zinc	52	J B	99	0.28	mg/Kg	☼	12/11/12 08:15	12/11/12 17:54	1

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00040	mg/L		12/11/12 08:15	12/11/12 20:48	1
Arsenic	ND		0.0050	0.00033	mg/L		12/11/12 08:15	12/11/12 20:48	1
Barium	ND		0.0010	0.00029	mg/L		12/11/12 08:15	12/11/12 20:48	1
Beryllium	ND		0.0010	0.000080	mg/L		12/11/12 08:15	12/11/12 20:48	1
Cadmium	ND		0.0010	0.00010	mg/L		12/11/12 08:15	12/11/12 20:48	1
Chromium	ND		0.0020	0.00050	mg/L		12/11/12 08:15	12/11/12 20:48	1
Cobalt	ND		0.0010	0.000054	mg/L		12/11/12 08:15	12/11/12 20:48	1
Copper	ND		0.0020	0.00056	mg/L		12/11/12 08:15	12/11/12 20:48	1
Lead	ND		0.0010	0.00018	mg/L		12/11/12 08:15	12/11/12 20:48	1
Molybdenum	ND		0.0020	0.00014	mg/L		12/11/12 08:15	12/11/12 20:48	1
Nickel	ND		0.0020	0.00030	mg/L		12/11/12 08:15	12/11/12 20:48	1
Selenium	ND		0.0050	0.00070	mg/L		12/11/12 08:15	12/12/12 16:02	1
Silver	ND		0.0050	0.000033	mg/L		12/11/12 08:15	12/11/12 20:48	1
Thallium	ND		0.0010	0.000050	mg/L		12/11/12 08:15	12/11/12 20:48	1
Vanadium	ND		0.0050	0.00050	mg/L		12/11/12 08:15	12/11/12 20:48	1
Zinc	ND		0.010	0.0020	mg/L		12/11/12 08:15	12/11/12 20:48	1

Method: 7470A - Mercury (CVAA)

Client Sample ID: EB-120512 — **Lab Sample ID: 280-36640-37**
Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000027	mg/L		12/10/12 12:50	12/10/12 20:26	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.025	0.0068	mg/Kg	☼	12/11/12 12:50	12/11/12 18:37	1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-5**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0070	J	0.024	0.0066	mg/Kg	☼	12/11/12 12:50	12/11/12 18:44	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0063	mg/Kg	☼	12/11/12 12:50	12/11/12 18:46	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-11**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0064	mg/Kg	☼	12/11/12 12:50	12/11/12 18:49	1

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-14**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0064	mg/Kg	☼	12/11/12 12:50	12/11/12 18:51	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.022	0.0062	mg/Kg	☼	12/11/12 12:50	12/11/12 18:58	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-19**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.022	0.0062	mg/Kg	☼	12/11/12 12:50	12/11/12 19:00	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.025	0.0069	mg/Kg	☼	12/11/12 12:50	12/11/12 19:03	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-24**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.023	0.0064	mg/Kg	☼	12/11/12 12:50	12/11/12 19:05	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.024	0.0067	mg/Kg	☼	12/11/12 12:50	12/11/12 19:07	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.023	0.0064	mg/Kg	☼	12/11/12 12:50	12/11/12 19:10	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-31**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.028	0.0076	mg/Kg	☼	12/11/12 12:50	12/11/12 19:12	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.028	0.0077	mg/Kg	☼	12/11/12 12:50	12/11/12 19:14	1

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-35**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0065	mg/Kg	☼	12/11/12 12:50	12/11/12 19:16	1

General Chemistry

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-2**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.9		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-3**
Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.69		0.100	0.100	SU			12/15/12 15:58	1
Temperature	20.0		1.00	1.00	Degrees C			12/15/12 15:58	1
Percent Moisture	7.9		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-4**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.0		0.10	0.10	%			12/12/12 10:05	1

General Chemistry

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36640-5**
Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.77		0.100	0.100	SU			12/15/12 15:59	1
Temperature	20.1		1.00	1.00	Degrees C			12/15/12 15:59	1
Percent Moisture	8.0		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-519-SA6-SB-4.5 — **Lab Sample ID: 280-36640-6**
Date Collected: 12/05/12 09:44 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.0		0.10	0.10	%			12/12/12 10:07	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-7**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.4		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36640-8**
Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.69		0.100	0.100	SU			12/15/12 16:00	1
Temperature	20.2		1.00	1.00	Degrees C			12/15/12 16:00	1
Percent Moisture	7.4		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-519-SA6-SB-9.5 — **Lab Sample ID: 280-36640-9**
Date Collected: 12/05/12 09:54 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.4		0.10	0.10	%			12/12/12 10:07	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-10**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — **Lab Sample ID: 280-36640-11**
Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.22		0.100	0.100	SU			12/15/12 16:01	1
Temperature	20.1		1.00	1.00	Degrees C			12/15/12 16:01	1
Percent Moisture	9.9		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-519-SA6-SB-14.5 — **Lab Sample ID: 280-36640-12**
Date Collected: 12/05/12 09:59 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		0.10	0.10	%			12/12/12 10:07	1

General Chemistry

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-13**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — **Lab Sample ID: 280-36640-14**
Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.06		0.100	0.100	SU			12/15/12 16:02	1
Temperature	20.2		1.00	1.00	Degrees C			12/15/12 16:02	1
Percent Moisture	8.6		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-519-SA6-SB-21.5 — **Lab Sample ID: 280-36640-15**
Date Collected: 12/05/12 10:04 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10	0.10	%			12/12/12 10:07	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-16**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-17**
Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.48		0.100	0.100	SU			12/15/12 16:03	1
Temperature	20.2		1.00	1.00	Degrees C			12/15/12 16:03	1
Percent Moisture	11		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-18**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.4		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-19**
Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.13		0.100	0.100	SU			12/15/12 16:13	1
Temperature	20.6		1.00	1.00	Degrees C			12/15/12 16:13	1
Percent Moisture	6.4		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-20**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/12/12 10:05	1

General Chemistry

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-21**
Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.94		0.100	0.100	SU			12/15/12 16:04	1
Temperature	20.4		1.00	1.00	Degrees C			12/15/12 16:04	1
Percent Moisture	3.4		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-633-SA6-SB-3.0 — **Lab Sample ID: 280-36640-22**
Date Collected: 12/05/12 10:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/12/12 10:07	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-23**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-24**
Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.63		0.100	0.100	SU			12/15/12 16:06	1
Temperature	20.4		1.00	1.00	Degrees C			12/15/12 16:06	1
Percent Moisture	8.8		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-25**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.9		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-26**
Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.43		0.100	0.100	SU			12/15/12 16:08	1
Temperature	20.1		1.00	1.00	Degrees C			12/15/12 16:08	1
Percent Moisture	8.9		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-27**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.2		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36640-28**
Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.22		0.100	0.100	SU			12/15/12 16:09	1
Temperature	20.5		1.00	1.00	Degrees C			12/15/12 16:09	1
Percent Moisture	4.2		0.10	0.10	%			12/10/12 15:53	1

General Chemistry

Client Sample ID: SL-634-SA6-SB-2.5 — **Lab Sample ID: 280-36640-29**
Date Collected: 12/05/12 14:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.2		0.10	0.10	%			12/12/12 10:07	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-30**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-31**
Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.86		0.100	0.100	SU			12/15/12 16:10	1
Temperature	20.4		1.00	1.00	Degrees C			12/15/12 16:10	1
Percent Moisture	18		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-32**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36640-33**
Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	5.82		0.100	0.100	SU			12/15/12 16:11	1
Temperature	20.7		1.00	1.00	Degrees C			12/15/12 16:11	1
Percent Moisture	17		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-34**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		0.10	0.10	%			12/12/12 10:05	1

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — **Lab Sample ID: 280-36640-35**
Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.72		0.100	0.100	SU			12/15/12 16:12	1
Temperature	20.5		1.00	1.00	Degrees C			12/15/12 16:12	1
Percent Moisture	4.3		0.10	0.10	%			12/10/12 15:53	1

Client Sample ID: SL-636-SA6-SB-3.0 — **Lab Sample ID: 280-36640-36**
Date Collected: 12/05/12 13:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		0.10	0.10	%			12/12/12 10:07	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

General Chemistry

Client Sample ID: EB-120512
Date Collected: 12/05/12 14:00
Date Received: 12/06/12 09:00

Lab Sample ID: 280-36640-37
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	5.74	HF	0.100	0.100	SU			12/06/12 14:20	1
Temperature	20.0	HF	1.00	1.00	Degrees C			12/06/12 14:20	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-150872/1-A
Matrix: Water
Analysis Batch: 151477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	0.0057	ug/L		12/06/12 17:00	12/10/12 21:57	1
2-Methylnaphthalene	ND		0.10	0.0052	ug/L		12/06/12 17:00	12/10/12 21:57	1
Acenaphthene	ND		0.10	0.011	ug/L		12/06/12 17:00	12/10/12 21:57	1
Acenaphthylene	ND		0.10	0.010	ug/L		12/06/12 17:00	12/10/12 21:57	1
Anthracene	ND		0.10	0.014	ug/L		12/06/12 17:00	12/10/12 21:57	1
Benzo[a]anthracene	0.00348	J	0.10	0.0032	ug/L		12/06/12 17:00	12/10/12 21:57	1
Benzo[a]pyrene	ND		0.10	0.0051	ug/L		12/06/12 17:00	12/10/12 21:57	1
Benzo[b]fluoranthene	ND		0.10	0.0034	ug/L		12/06/12 17:00	12/10/12 21:57	1
Benzo[g,h,i]perylene	ND		0.10	0.0036	ug/L		12/06/12 17:00	12/10/12 21:57	1
Benzo[k]fluoranthene	ND		0.10	0.0051	ug/L		12/06/12 17:00	12/10/12 21:57	1
Chrysene	ND		0.10	0.0032	ug/L		12/06/12 17:00	12/10/12 21:57	1
Dibenz(a,h)anthracene	ND		0.10	0.0048	ug/L		12/06/12 17:00	12/10/12 21:57	1
Fluoranthene	0.00552	J	0.10	0.0045	ug/L		12/06/12 17:00	12/10/12 21:57	1
Fluorene	ND		0.10	0.019	ug/L		12/06/12 17:00	12/10/12 21:57	1
Indeno[1,2,3-cd]pyrene	ND		0.10	0.015	ug/L		12/06/12 17:00	12/10/12 21:57	1
Naphthalene	ND		0.10	0.0053	ug/L		12/06/12 17:00	12/10/12 21:57	1
N-Nitrosodimethylamine	ND		0.40	0.13	ug/L		12/06/12 17:00	12/10/12 21:57	1
Phenanthrene	0.0121	J	0.10	0.0098	ug/L		12/06/12 17:00	12/10/12 21:57	1
Pyrene	ND		0.10	0.0081	ug/L		12/06/12 17:00	12/10/12 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*45 - 130*	*12/06/12 17:00*	*12/10/12 21:57*	*1*
Nitrobenzene-d5	*81*		*40 - 130*	*12/06/12 17:00*	*12/10/12 21:57*	*1*
Terphenyl-d14	*139*	*X*	*45 - 130*	*12/06/12 17:00*	*12/10/12 21:57*	*1*

Lab Sample ID: LCS 280-150872/2-A
Matrix: Water
Analysis Batch: 151477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	0.900	0.772		ug/L		86	44 - 150
2-Methylnaphthalene	0.900	0.697		ug/L		77	36 - 121
Acenaphthene	0.900	0.746		ug/L		83	47 - 120
Acenaphthylene	0.900	0.736		ug/L		82	39 - 120
Anthracene	0.900	0.758		ug/L		84	28 - 120
Benzo[a]anthracene	0.900	0.761		ug/L		85	42 - 120
Benzo[a]pyrene	0.900	0.720		ug/L		80	38 - 120
Benzo[b]fluoranthene	0.900	0.803		ug/L		89	44 - 120
Benzo[g,h,i]perylene	0.900	0.789		ug/L		88	39 - 120
Benzo[k]fluoranthene	0.900	0.836		ug/L		93	43 - 120
Chrysene	0.900	0.877		ug/L		97	35 - 120
Dibenz(a,h)anthracene	0.900	0.803		ug/L		89	27 - 126
Fluoranthene	0.900	0.807		ug/L		90	46 - 120
Fluorene	0.900	0.738		ug/L		82	49 - 120
Indeno[1,2,3-cd]pyrene	0.900	0.706		ug/L		78	38 - 120
Naphthalene	0.900	0.728		ug/L		81	37 - 120
Phenanthrene	0.900	0.807		ug/L		90	46 - 120
Pyrene	0.900	0.811		ug/L		90	49 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-150872/2-A
Matrix: Water
Analysis Batch: 151477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150872

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*45 - 130*
Nitrobenzene-d5	*84*		*40 - 130*
Terphenyl-d14	*90*		*45 - 130*

Lab Sample ID: LCSD 280-150872/3-A
Matrix: Water
Analysis Batch: 151477

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 150872

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	0.900	0.754		ug/L		84	44 - 150	2	50
2-Methylnaphthalene	0.900	0.682		ug/L		76	36 - 121	2	30
Acenaphthene	0.900	0.714		ug/L		79	47 - 120	4	50
Acenaphthylene	0.900	0.744		ug/L		83	39 - 120	1	50
Anthracene	0.900	0.752		ug/L		84	28 - 120	1	50
Benzo[a]anthracene	0.900	0.773		ug/L		86	42 - 120	2	40
Benzo[a]pyrene	0.900	0.778		ug/L		86	38 - 120	8	21
Benzo[b]fluoranthene	0.900	0.869		ug/L		97	44 - 120	8	28
Benzo[g,h,i]perylene	0.900	0.810		ug/L		90	39 - 120	3	23
Benzo[k]fluoranthene	0.900	0.804		ug/L		89	43 - 120	4	28
Chrysene	0.900	0.860		ug/L		96	35 - 120	2	41
Dibenz(a,h)anthracene	0.900	0.811		ug/L		90	27 - 126	1	25
Fluoranthene	0.900	0.808		ug/L		90	46 - 120	0	24
Fluorene	0.900	0.757		ug/L		84	49 - 120	3	50
Indeno[1,2,3-cd]pyrene	0.900	0.781		ug/L		87	38 - 120	10	25
Naphthalene	0.900	0.750		ug/L		83	37 - 120	3	50
Phenanthrene	0.900	0.805		ug/L		89	46 - 120	0	42
Pyrene	0.900	0.882		ug/L		98	49 - 120	8	22

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*45 - 130*
Nitrobenzene-d5	*86*		*40 - 130*
Terphenyl-d14	*150*	*X*	*45 - 130*

Lab Sample ID: MB 280-151447/1-A
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151447

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.2	0.24	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
2-Methylnaphthalene	0.416	J	9.2	0.28	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Acenaphthene	ND		9.2	0.15	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Acenaphthylene	ND		9.2	0.16	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Anthracene	ND		9.2	0.66	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Benzo[a]anthracene	ND		9.2	0.83	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Benzo[a]pyrene	ND		9.2	0.68	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Benzo[b]fluoranthene	ND		9.2	1.1	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Benzo[g,h,i]perylene	ND		9.2	1.0	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Benzo[k]fluoranthene	ND		9.2	0.92	ug/Kg		12/10/12 17:15	12/16/12 08:46	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-151447/1-A
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151447

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		9.2	0.92	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Dibenz(a,h)anthracene	ND		9.2	1.2	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Fluoranthene	ND		9.2	0.92	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Fluorene	ND		9.2	0.43	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Indeno[1,2,3-cd]pyrene	ND		9.2	1.0	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Naphthalene	ND		9.2	0.30	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
N-Nitrosodimethylamine	ND		9.2	2.2	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Phenanthrene	ND		9.2	1.0	ug/Kg		12/10/12 17:15	12/16/12 08:46	1
Pyrene	ND		9.2	1.0	ug/Kg		12/10/12 17:15	12/16/12 08:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*45 - 130*	*12/10/12 17:15*	*12/16/12 08:46*	*1*
Nitrobenzene-d5	*73*		*40 - 130*	*12/10/12 17:15*	*12/16/12 08:46*	*1*
Terphenyl-d14	*96*		*45 - 130*	*12/10/12 17:15*	*12/16/12 08:46*	*1*

Lab Sample ID: LCS 280-151447/2-A
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	28.1	24.3		ug/Kg		86	50 - 150
2-Methylnaphthalene	28.1	23.8		ug/Kg		85	30 - 120
Acenaphthene	28.1	23.9		ug/Kg		85	35 - 120
Acenaphthylene	28.1	22.8		ug/Kg		81	41 - 120
Anthracene	28.1	22.9		ug/Kg		81	43 - 120
Benzo[a]anthracene	28.1	24.2		ug/Kg		86	36 - 120
Benzo[a]pyrene	28.1	24.2		ug/Kg		86	20 - 120
Benzo[b]fluoranthene	28.1	24.3		ug/Kg		86	37 - 120
Benzo[g,h,i]perylene	28.1	25.8		ug/Kg		92	20 - 123
Benzo[k]fluoranthene	28.1	24.6		ug/Kg		88	46 - 120
Chrysene	28.1	26.3		ug/Kg		93	34 - 120
Dibenz(a,h)anthracene	28.1	24.0		ug/Kg		85	20 - 120
Fluoranthene	28.1	24.9		ug/Kg		89	45 - 120
Fluorene	28.1	23.7		ug/Kg		84	44 - 120
Indeno[1,2,3-cd]pyrene	28.1	23.2		ug/Kg		82	20 - 127
Naphthalene	28.1	23.9		ug/Kg		85	44 - 120
Phenanthrene	28.1	24.2		ug/Kg		86	44 - 120
Pyrene	28.1	26.2		ug/Kg		93	43 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*45 - 130*
Nitrobenzene-d5	*78*		*40 - 130*
Terphenyl-d14	*95*		*45 - 130*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36640-10 MS
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: SL-519-SA6-SB-14.0-15.0
Prep Type: Total/NA
Prep Batch: 151447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	ND		31.4	21.6		ug/Kg	☼	69	50 - 150
2-Methylnaphthalene	ND		31.4	20.9		ug/Kg	☼	66	30 - 120
Acenaphthene	ND		31.4	21.6		ug/Kg	☼	69	35 - 120
Acenaphthylene	ND		31.4	19.4		ug/Kg	☼	62	41 - 120
Anthracene	ND		31.4	20.0		ug/Kg	☼	64	43 - 120
Benzo[a]anthracene	ND		31.4	20.9		ug/Kg	☼	67	36 - 120
Benzo[a]pyrene	ND		31.4	19.8		ug/Kg	☼	63	20 - 120
Benzo[b]fluoranthene	ND		31.4	20.0		ug/Kg	☼	64	37 - 120
Benzo[g,h,i]perylene	ND		31.4	19.8		ug/Kg	☼	63	20 - 123
Benzo[k]fluoranthene	ND		31.4	20.5		ug/Kg	☼	65	46 - 120
Chrysene	ND		31.4	22.3		ug/Kg	☼	71	34 - 120
Dibenz(a,h)anthracene	ND		31.4	19.1		ug/Kg	☼	61	20 - 120
Fluoranthene	ND		31.4	20.6		ug/Kg	☼	66	45 - 120
Fluorene	ND		31.4	21.0		ug/Kg	☼	67	44 - 120
Indeno[1,2,3-cd]pyrene	ND		31.4	18.2		ug/Kg	☼	58	20 - 127
Naphthalene	ND		31.4	20.8		ug/Kg	☼	66	44 - 120
Phenanthrene	ND		31.4	21.1		ug/Kg	☼	67	44 - 120
Pyrene	ND		31.4	21.6		ug/Kg	☼	69	43 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*45 - 130*
Nitrobenzene-d5	*62*		*40 - 130*
Terphenyl-d14	*70*		*45 - 130*

Lab Sample ID: 280-36640-10 MSD
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: SL-519-SA6-SB-14.0-15.0
Prep Type: Total/NA
Prep Batch: 151447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		31.6	20.2		ug/Kg	☼	64	50 - 150	7	50
2-Methylnaphthalene	ND		31.6	19.6		ug/Kg	☼	62	30 - 120	6	30
Acenaphthene	ND		31.6	20.6		ug/Kg	☼	65	35 - 120	5	50
Acenaphthylene	ND		31.6	20.0		ug/Kg	☼	63	41 - 120	3	50
Anthracene	ND		31.6	19.6		ug/Kg	☼	62	43 - 120	2	50
Benzo[a]anthracene	ND		31.6	20.6		ug/Kg	☼	65	36 - 120	1	40
Benzo[a]pyrene	ND		31.6	19.6		ug/Kg	☼	62	20 - 120	1	30
Benzo[b]fluoranthene	ND		31.6	19.8		ug/Kg	☼	63	37 - 120	1	28
Benzo[g,h,i]perylene	ND		31.6	19.7		ug/Kg	☼	62	20 - 123	1	30
Benzo[k]fluoranthene	ND		31.6	20.0		ug/Kg	☼	63	46 - 120	2	28
Chrysene	ND		31.6	22.0		ug/Kg	☼	70	34 - 120	1	41
Dibenz(a,h)anthracene	ND		31.6	18.5		ug/Kg	☼	59	20 - 120	3	25
Fluoranthene	ND		31.6	20.5		ug/Kg	☼	65	45 - 120	1	30
Fluorene	ND		31.6	20.3		ug/Kg	☼	64	44 - 120	3	50
Indeno[1,2,3-cd]pyrene	ND		31.6	18.1		ug/Kg	☼	57	20 - 127	1	50
Naphthalene	ND		31.6	19.4		ug/Kg	☼	61	44 - 120	7	50
Phenanthrene	ND		31.6	20.7		ug/Kg	☼	66	44 - 120	2	42
Pyrene	ND		31.6	21.5		ug/Kg	☼	68	43 - 120	0	30

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36640-10 MSD — **Client Sample ID: SL-519-SA6-SB-14.0-15.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152451 — **Prep Batch: 151447**

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*60*		*45 - 130*
Nitrobenzene-d5	*58*		*40 - 130*
Terphenyl-d14	*69*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-150911/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151628 — **Prep Batch: 150911**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.33	mg/Kg		12/06/12 21:35	12/11/12 17:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*77 - 123*	*12/06/12 21:35*	*12/11/12 17:48*	*1*

Lab Sample ID: LCS 280-150911/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151628 — **Prep Batch: 150911**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			5.50	5.77		mg/Kg		105	85 - 153		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*99*		*77 - 123*

Lab Sample ID: LCSD 280-150911/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151628 — **Prep Batch: 150911**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			5.50	5.78		mg/Kg		105	85 - 153	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*98*		*77 - 123*

Lab Sample ID: MB 280-151153/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/07/12 16:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*107*		*82 - 110*		*12/07/12 16:44*	*1*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 280-151153/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	100		ug/L		100	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*105*		*82 - 110*

Lab Sample ID: LCSD 280-151153/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	102		ug/L		101	79 - 149	2	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*107*		*82 - 110*

Lab Sample ID: 280-36415-J-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	3200		1010	4190		ug/L		100	79 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*82 - 110*

Lab Sample ID: 280-36415-J-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	3200		1010	4260		ug/L		107	79 - 149	2	27

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*105*		*82 - 110*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-151516/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152217 — **Prep Batch: 151516**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		9.8	0.98	mg/Kg		12/11/12 11:10	12/13/12 01:06	1
EFH (C12-C14)	ND		4.9	0.98	mg/Kg		12/11/12 11:10	12/13/12 01:06	1
EFH (C15-C20)	ND		4.9	0.98	mg/Kg		12/11/12 11:10	12/13/12 01:06	1
EFH (C21-C30)	ND		4.9	0.98	mg/Kg		12/11/12 11:10	12/13/12 01:06	1
EFH (C8-C11)	ND		4.9	0.97	mg/Kg		12/11/12 11:10	12/13/12 01:06	1

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: MB 280-151516/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152217 — **Prep Batch: 151516**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	1.18	J	3.9	0.66	mg/Kg		12/11/12 11:10	12/13/12 01:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*49 - 115*	*12/11/12 11:10*	*12/13/12 01:06*	*1*

Lab Sample ID: LCS 280-151516/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152217 — **Prep Batch: 151516**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	32.9	33.9		mg/Kg		103	43 - 115
EFH (C15-C20)	49.3	49.7		mg/Kg		101	56 - 115
EFH (C21-C30)	65.8	63.3		mg/Kg		96	55 - 115
EFH (C8-C11)	16.4	15.1		mg/Kg		92	21 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*88*		*49 - 115*

Lab Sample ID: 280-36640-20 MS — **Client Sample ID: SL-633-SA6-SB-2.5-3.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152217 — **Prep Batch: 151516**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	ND		34.0	36.2		mg/Kg	☼	107	43 - 115
EFH (C15-C20)	2.8	J	50.9	56.3		mg/Kg	☼	105	56 - 115
EFH (C21-C30)	54		67.9	100		mg/Kg	☼	68	55 - 115
EFH (C8-C11)	ND		17.0	14.9		mg/Kg	☼	88	21 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*107*		*49 - 115*

Lab Sample ID: 280-36640-20 MSD — **Client Sample ID: SL-633-SA6-SB-2.5-3.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152217 — **Prep Batch: 151516**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	ND		34.0	33.4		mg/Kg	☼	98	43 - 115	8	30
EFH (C15-C20)	2.8	J	50.9	51.4		mg/Kg	☼	95	56 - 115	9	30
EFH (C21-C30)	54		67.9	98.5		mg/Kg	☼	65	55 - 115	2	30
EFH (C8-C11)	ND		17.0	14.0		mg/Kg	☼	82	21 - 125	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*94*		*49 - 115*

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: MB 280-151564/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C12-C14)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C15-C20)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C21-C30)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C8-C11)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
Total Petroleum Hydrocarbons (C8-C40)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 115*	*12/11/12 10:47*	*12/13/12 10:40*	*1*

Lab Sample ID: LCS 280-151564/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	1.00	0.906		mg/L		91	24 - 115
EFH (C15-C20)	1.50	1.53		mg/L		102	69 - 115
EFH (C21-C30)	2.00	1.99		mg/L		99	75 - 115
EFH (C8-C11)	0.500	0.302		mg/L		60	10 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 115*

Lab Sample ID: LCSD 280-151564/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	1.00	0.897		mg/L		90	24 - 115	1	30
EFH (C15-C20)	1.50	1.49		mg/L		99	69 - 115	3	30
EFH (C21-C30)	2.00	1.83		mg/L		91	75 - 115	8	30
EFH (C8-C11)	0.500	0.289		mg/L		58	10 - 115	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 115*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-151138/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151548 — **Prep Batch: 151138**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0077	ug/L		12/07/12 16:22	12/11/12 22:49	1
4,4'-DDE	ND		0.050	0.0075	ug/L		12/07/12 16:22	12/11/12 22:49	1
4,4'-DDT	ND		0.050	0.015	ug/L		12/07/12 16:22	12/11/12 22:49	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 280-151138/1-A
Matrix: Water
Analysis Batch: 151548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151138

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0059	ug/L		12/07/12 16:22	12/11/12 22:49	1
alpha-BHC	ND		0.050	0.0053	ug/L		12/07/12 16:22	12/11/12 22:49	1
beta-BHC	ND		0.050	0.0087	ug/L		12/07/12 16:22	12/11/12 22:49	1
delta-BHC	ND		0.050	0.0058	ug/L		12/07/12 16:22	12/11/12 22:49	1
Dieldrin	ND		0.050	0.0063	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endosulfan I	ND		0.050	0.0058	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endosulfan II	ND		0.050	0.0070	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endosulfan sulfate	ND		0.050	0.0057	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endrin	ND		0.050	0.0079	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endrin aldehyde	ND		0.050	0.0088	ug/L		12/07/12 16:22	12/11/12 22:49	1
Endrin ketone	ND		0.050	0.0070	ug/L		12/07/12 16:22	12/11/12 22:49	1
gamma-BHC (Lindane)	ND		0.050	0.0069	ug/L		12/07/12 16:22	12/11/12 22:49	1
Heptachlor	ND		0.050	0.0077	ug/L		12/07/12 16:22	12/11/12 22:49	1
Heptachlor epoxide	ND		0.050	0.0075	ug/L		12/07/12 16:22	12/11/12 22:49	1
Methoxychlor	ND		0.10	0.013	ug/L		12/07/12 16:22	12/11/12 22:49	1
Mirex	ND		0.050	0.0027	ug/L		12/07/12 16:22	12/11/12 22:49	1
Technical Chlordane	ND		0.50	0.14	ug/L		12/07/12 16:22	12/11/12 22:49	1
Toxaphene	ND		2.0	0.37	ug/L		12/07/12 16:22	12/11/12 22:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*20 - 120*	*12/07/12 16:22*	*12/11/12 22:49*	*1*
DCB Decachlorobiphenyl	*104*		*20 - 120*	*12/07/12 16:22*	*12/11/12 22:49*	*1*
Tetrachloro-m-xylene	*72*		*60 - 140*	*12/07/12 16:22*	*12/11/12 22:49*	*1*
Tetrachloro-m-xylene	*70*		*60 - 140*	*12/07/12 16:22*	*12/11/12 22:49*	*1*

Lab Sample ID: LCS 280-151138/2-A
Matrix: Water
Analysis Batch: 151548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151138

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.500	0.502		ug/L		100	55 - 135
4,4'-DDE	0.500	0.493		ug/L		99	60 - 123
4,4'-DDT	0.500	0.502		ug/L		100	62 - 127
Aldrin	0.500	0.392		ug/L		78	27 - 125
alpha-BHC	0.500	0.522		ug/L		104	68 - 122
beta-BHC	0.500	0.522		ug/L		104	72 - 119
delta-BHC	0.500	0.522		ug/L		104	74 - 116
Dieldrin	0.500	0.513		ug/L		103	73 - 127
Endosulfan I	0.500	0.505		ug/L		101	69 - 122
Endosulfan II	0.500	0.507		ug/L		101	77 - 120
Endosulfan sulfate	0.500	0.500		ug/L		100	73 - 124
Endrin	0.500	0.515		ug/L		103	80 - 134
Endrin aldehyde	0.500	0.437		ug/L		87	57 - 115
Endrin ketone	0.500	0.485		ug/L		97	66 - 115
gamma-BHC (Lindane)	0.500	0.524		ug/L		105	69 - 121
Heptachlor	0.500	0.421		ug/L		84	40 - 123
Heptachlor epoxide	0.500	0.503		ug/L		101	71 - 120
Methoxychlor	0.500	0.485		ug/L		97	67 - 126

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-151138/2-A
Matrix: Water
Analysis Batch: 151548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*102*		*20 - 120*
DCB Decachlorobiphenyl	*100*		*20 - 120*
Tetrachloro-m-xylene	*79*		*60 - 140*
Tetrachloro-m-xylene	*78*		*60 - 140*

Lab Sample ID: LCS 280-151138/6-A
Matrix: Water
Analysis Batch: 151548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151138

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toxaphene			2.00	1.77	J	ug/L		88	34 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*95*		*20 - 120*
Tetrachloro-m-xylene	*73*		*60 - 140*

Lab Sample ID: LCSD 280-151138/3-A
Matrix: Water
Analysis Batch: 151548

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 151138

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD			0.500	0.493		ug/L		99	55 - 135	2	50
4,4'-DDE			0.500	0.486		ug/L		97	60 - 123	1	50
4,4'-DDT			0.500	0.492		ug/L		98	62 - 127	2	25
Aldrin			0.500	0.430		ug/L		86	27 - 125	9	33
alpha-BHC			0.500	0.503		ug/L		101	68 - 122	4	50
beta-BHC			0.500	0.502		ug/L		100	72 - 119	4	50
delta-BHC			0.500	0.505		ug/L		101	74 - 116	3	50
Dieldrin			0.500	0.497		ug/L		99	73 - 127	3	22
Endosulfan I			0.500	0.491		ug/L		98	69 - 122	3	50
Endosulfan II			0.500	0.495		ug/L		99	77 - 120	2	50
Endosulfan sulfate			0.500	0.487		ug/L		97	73 - 124	3	50
Endrin			0.500	0.505		ug/L		101	80 - 134	2	39
Endrin aldehyde			0.500	0.423		ug/L		85	57 - 115	3	50
Endrin ketone			0.500	0.474		ug/L		95	66 - 115	2	50
gamma-BHC (Lindane)			0.500	0.504		ug/L		101	69 - 121	4	26
Heptachlor			0.500	0.444		ug/L		89	40 - 123	5	27
Heptachlor epoxide			0.500	0.488		ug/L		98	71 - 120	3	50
Methoxychlor			0.500	0.480		ug/L		96	67 - 126	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*98*		*20 - 120*
DCB Decachlorobiphenyl	*97*		*20 - 120*
Tetrachloro-m-xylene	*82*		*60 - 140*
Tetrachloro-m-xylene	*80*		*60 - 140*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 280-151138/7-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151548 — **Prep Batch: 151138**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene	2.00	1.70	J	ug/L		85	34 - 150	4	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*93*		*20 - 120*
Tetrachloro-m-xylene	*66*		*60 - 140*

Lab Sample ID: MB 280-151296/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.54	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
4,4'-DDE	ND		3.3	0.23	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
4,4'-DDT	ND		3.3	0.58	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Aldrin	ND		1.7	0.25	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
alpha-BHC	ND		1.7	0.21	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
beta-BHC	ND		1.7	0.66	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
delta-BHC	ND		1.7	0.40	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Dieldrin	ND		3.3	0.21	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endosulfan I	ND		1.7	0.17	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endosulfan II	ND		3.3	0.28	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endosulfan sulfate	ND		3.3	0.27	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endrin	ND		3.3	0.30	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endrin aldehyde	ND		3.3	0.17	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Endrin ketone	ND		3.3	0.48	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Heptachlor	ND		1.7	0.21	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Heptachlor epoxide	ND		1.7	0.42	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Methoxychlor	ND		6.6	0.44	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Mirex	ND		1.7	0.26	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Technical Chlordane	ND		17	7.7	ug/Kg		12/10/12 13:25	12/15/12 02:34	1
Toxaphene	ND		49	16	ug/Kg		12/10/12 13:25	12/15/12 02:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*20 - 120*	*12/10/12 13:25*	*12/15/12 02:34*	*1*
DCB Decachlorobiphenyl	*112*		*20 - 120*	*12/10/12 13:25*	*12/15/12 02:34*	*1*
Tetrachloro-m-xylene	*102*		*50 - 130*	*12/10/12 13:25*	*12/15/12 02:34*	*1*
Tetrachloro-m-xylene	*107*		*50 - 130*	*12/10/12 13:25*	*12/15/12 02:34*	*1*

Lab Sample ID: LCS 280-151296/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.5	14.3		ug/Kg		87	54 - 130
4,4'-DDE	16.5	16.2		ug/Kg		98	58 - 121
4,4'-DDT	16.5	16.8		ug/Kg		102	57 - 133

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-151296/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	16.5	15.1		ug/Kg		92	63 - 115
alpha-BHC	16.5	14.4		ug/Kg		87	64 - 116
beta-BHC	16.5	14.6		ug/Kg		88	67 - 115
delta-BHC	16.5	15.1		ug/Kg		91	67 - 115
Dieldrin	16.5	16.3		ug/Kg		99	65 - 127
Endosulfan I	16.5	16.1		ug/Kg		97	65 - 118
Endosulfan II	16.5	16.2		ug/Kg		98	71 - 118
Endosulfan sulfate	16.5	11.6		ug/Kg		71	67 - 123
Endrin	16.5	18.5		ug/Kg		112	77 - 134
Endrin aldehyde	16.5	11.4		ug/Kg		69	47 - 115
Endrin ketone	16.5	15.6		ug/Kg		94	62 - 115
gamma-BHC (Lindane)	16.5	14.5		ug/Kg		88	63 - 118
Heptachlor	16.5	14.8		ug/Kg		90	68 - 115
Heptachlor epoxide	16.5	15.7		ug/Kg		95	66 - 117
Methoxychlor	16.5	17.0		ug/Kg		103	67 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*99*		*20 - 120*
DCB Decachlorobiphenyl	*103*		*20 - 120*
Tetrachloro-m-xylene	*91*		*50 - 130*
Tetrachloro-m-xylene	*90*		*50 - 130*

Lab Sample ID: LCS 280-151296/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	66.0	45.0	J	ug/Kg		68	19 - 174

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*103*		*20 - 120*
Tetrachloro-m-xylene	*87*		*50 - 130*

Lab Sample ID: 280-36640-26 MS — **Client Sample ID: SL-634-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		18.0	13.8		ug/Kg	☼	77	54 - 130
4,4'-DDE	ND		18.0	13.8		ug/Kg	☼	76	58 - 121
Aldrin	ND		18.0	13.2		ug/Kg	☼	73	63 - 115
alpha-BHC	ND		18.0	14.8		ug/Kg	☼	82	64 - 116
beta-BHC	ND		18.0	14.3		ug/Kg	☼	79	67 - 115
delta-BHC	ND		18.0	14.7		ug/Kg	☼	81	67 - 115
Dieldrin	ND		18.0	15.0		ug/Kg	☼	83	65 - 127
Endosulfan I	ND		18.0	13.7		ug/Kg	☼	76	65 - 118
Endosulfan II	ND		18.0	14.1		ug/Kg	☼	78	71 - 118
Endosulfan sulfate	ND		18.0	16.7		ug/Kg	☼	93	67 - 123

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-36640-26 MS — **Client Sample ID: SL-634-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	ND		18.0	16.8		ug/Kg	☼	93	77 - 134
Endrin aldehyde	ND		18.0	10.1		ug/Kg	☼	56	47 - 115
Endrin ketone	ND		18.0	14.5		ug/Kg	☼	80	62 - 115
gamma-BHC (Lindane)	ND		18.0	14.5		ug/Kg	☼	81	63 - 118
Heptachlor	ND		18.0	15.2		ug/Kg	☼	84	68 - 115
Heptachlor epoxide	ND		18.0	14.5		ug/Kg	☼	80	66 - 117

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*96*		*20 - 120*
DCB Decachlorobiphenyl	*85*		*20 - 120*
Tetrachloro-m-xylene	*82*		*50 - 130*
Tetrachloro-m-xylene	*81*		*50 - 130*

Lab Sample ID: 280-36640-26 MSD — **Client Sample ID: SL-634-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152260 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		18.0	13.6		ug/Kg	☼	76	54 - 130	2	20
4,4'-DDE	ND		18.0	13.9		ug/Kg	☼	77	58 - 121	1	15
Aldrin	ND		18.0	13.0		ug/Kg	☼	72	63 - 115	2	50
alpha-BHC	ND		18.0	14.7		ug/Kg	☼	82	64 - 116	1	17
beta-BHC	ND		18.0	13.6		ug/Kg	☼	76	67 - 115	5	17
delta-BHC	ND		18.0	14.0		ug/Kg	☼	78	67 - 115	5	19
Dieldrin	ND		18.0	15.2		ug/Kg	☼	84	65 - 127	1	25
Endosulfan I	ND		18.0	14.0		ug/Kg	☼	78	65 - 118	2	26
Endosulfan II	ND		18.0	14.2		ug/Kg	☼	79	71 - 118	1	20
Endosulfan sulfate	ND		18.0	15.3		ug/Kg	☼	85	67 - 123	9	22
Endrin	ND		18.0	16.5		ug/Kg	☼	91	77 - 134	2	30
Endrin aldehyde	ND		18.0	9.70		ug/Kg	☼	54	47 - 115	4	29
Endrin ketone	ND		18.0	14.2		ug/Kg	☼	79	62 - 115	3	20
gamma-BHC (Lindane)	ND		18.0	14.1		ug/Kg	☼	78	63 - 118	3	24
Heptachlor	ND		18.0	14.5		ug/Kg	☼	81	68 - 115	4	18
Heptachlor epoxide	ND		18.0	13.3		ug/Kg	☼	74	66 - 117	8	18

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*103*		*20 - 120*
DCB Decachlorobiphenyl	*84*		*20 - 120*
Tetrachloro-m-xylene	*84*		*50 - 130*
Tetrachloro-m-xylene	*73*		*50 - 130*

Method: 8081B - Organochlorine Pesticides (GC) - DL

Lab Sample ID: 280-36640-26 MS — **Client Sample ID: SL-634-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152542 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDT - DL	ND		18.0	15.7	J D	ug/Kg	☼	87	57 - 133
Methoxychlor - DL	ND		18.0	14.2	J D	ug/Kg	☼	79	67 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl - DL	*65*	*D*	*20 - 120*
DCB Decachlorobiphenyl - DL	*38*	*D*	*20 - 120*
Tetrachloro-m-xylene - DL	*79*	*D*	*50 - 130*
Tetrachloro-m-xylene - DL	*63*	*D*	*50 - 130*

Lab Sample ID: 280-36640-26 MSD — **Client Sample ID: SL-634-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152542 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDT - DL	ND		18.0	15.9	J D	ug/Kg	☼	89	57 - 133	1	29
Methoxychlor - DL	ND		18.0	14.7	J D	ug/Kg	☼	82	67 - 130	4	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl - DL	*67*	*D*	*20 - 120*
DCB Decachlorobiphenyl - DL	*46*	*D*	*20 - 120*
Tetrachloro-m-xylene - DL	*79*	*D*	*50 - 130*
Tetrachloro-m-xylene - DL	*63*	*D*	*50 - 130*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-151138/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151138**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.12	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1221	ND		1.0	0.21	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1232	ND		1.0	0.17	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1242	ND		1.0	0.10	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1248	ND		1.0	0.092	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1254	ND		1.0	0.11	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1260	ND		1.0	0.16	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1262	ND		1.0	0.085	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 1268	ND		1.0	0.36	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 5432	ND		0.50	0.16	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 5442	ND		0.50	0.22	ug/L		12/07/12 16:22	12/14/12 16:25	1
Aroclor 5460	ND		0.50	0.13	ug/L		12/07/12 16:22	12/14/12 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*45 - 120*	*12/07/12 16:22*	*12/14/12 16:25*	*1*
Tetrachloro-m-xylene	*73*		*45 - 120*	*12/07/12 16:22*	*12/14/12 16:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 280-151138/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151138**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	2.00	2.38		ug/L		119	58 - 128
Aroclor 1260	2.00	2.05		ug/L		102	69 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*88*		*45 - 120*
Tetrachloro-m-xylene	*88*		*45 - 120*

Lab Sample ID: LCS 280-151138/8-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151138**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	2.00	1.98		ug/L		99	63 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*80*		*45 - 120*
Tetrachloro-m-xylene	*64*		*45 - 120*

Lab Sample ID: LCSD 280-151138/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151138**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	2.00	2.22		ug/L		111	58 - 128	7	30
Aroclor 1260	2.00	1.94		ug/L		97	69 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*45 - 120*
Tetrachloro-m-xylene	*76*		*45 - 120*

Lab Sample ID: LCSD 280-151138/9-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151138**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	2.00	2.04		ug/L		102	63 - 129	3	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*82*		*45 - 120*
Tetrachloro-m-xylene	*78*		*45 - 120*

Lab Sample ID: MB 280-151296/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg		12/10/12 13:25	12/14/12 18:33	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 280-151296/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		33	15	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1232	ND		17	5.1	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1242	ND		17	9.0	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1248	ND		17	5.5	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1254	ND		17	5.4	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1260	ND		17	2.6	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1262	ND		33	11	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 1268	ND		33	3.9	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 5432	ND		49	16	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 5442	ND		49	32	ug/Kg		12/10/12 13:25	12/14/12 18:33	1
Aroclor 5460	ND		49	16	ug/Kg		12/10/12 13:25	12/14/12 18:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*89*		*45 - 120*	*12/10/12 13:25*	*12/14/12 18:33*	*1*
Tetrachloro-m-xylene	*112*		*45 - 120*	*12/10/12 13:25*	*12/14/12 18:33*	*1*

Lab Sample ID: LCS 280-151296/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	64.5	69.0		ug/Kg		107	54 - 132
Aroclor 1260	64.5	65.2		ug/Kg		101	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*85*		*45 - 120*
Tetrachloro-m-xylene	*107*		*45 - 120*

Lab Sample ID: LCS 280-151296/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	65.6	68.8		ug/Kg		105	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*87*		*45 - 120*
Tetrachloro-m-xylene	*109*		*45 - 120*

Lab Sample ID: 280-36640-28 MS — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		66.5	95.2	F	ug/Kg	☼	143	54 - 132
Aroclor 1260	ND		66.5	70.0		ug/Kg	☼	105	62 - 129

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36640-28 MS — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	71		45 - 120
Tetrachloro-m-xylene	112		45 - 120

Lab Sample ID: 280-36640-28 MS — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	ND		69.1	53.2		ug/Kg	☼	77	62 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	70		45 - 120
Tetrachloro-m-xylene	115		45 - 120

Lab Sample ID: 280-36640-28 MSD — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.7	91.3	F	ug/Kg	☼	137	54 - 132	4	36
Aroclor 1260	ND		66.7	67.7		ug/Kg	☼	102	62 - 129	3	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	67		45 - 120
Tetrachloro-m-xylene	109		45 - 120

Lab Sample ID: 280-36640-28 MSD — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152281 — **Prep Batch: 151296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		68.0	61.5		ug/Kg	☼	91	62 - 129	15	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	70		45 - 120
Tetrachloro-m-xylene	107		45 - 120

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-150843/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150843**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		1.0	0.19	ug/L		12/06/12 14:43	12/11/12 03:54	1
2,4-D	ND		4.0	0.21	ug/L		12/06/12 14:43	12/11/12 03:54	1
2,4-DB	ND		4.0	0.36	ug/L		12/06/12 14:43	12/11/12 03:54	1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 280-150843/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150843**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		2.0	0.91	ug/L		12/06/12 14:43	12/11/12 03:54	1
Dicamba	ND		2.0	0.15	ug/L		12/06/12 14:43	12/11/12 03:54	1
Dichlorprop	ND		4.0	0.65	ug/L		12/06/12 14:43	12/11/12 03:54	1
Dinoseb	ND		1.0	0.18	ug/L		12/06/12 14:43	12/11/12 03:54	1
MCPA	ND		400	17	ug/L		12/06/12 14:43	12/11/12 03:54	1
MCPP	ND		400	33	ug/L		12/06/12 14:43	12/11/12 03:54	1
Silvex (2,4,5-TP)	ND		1.0	0.17	ug/L		12/06/12 14:43	12/11/12 03:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*79*		*50 - 150*	*12/06/12 14:43*	*12/11/12 03:54*	*1*
2,4-Dichlorophenylacetic acid	*84*		*50 - 150*	*12/06/12 14:43*	*12/11/12 03:54*	*1*

Lab Sample ID: LCS 280-150843/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150843**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	4.80	5.52		ug/L		115	29 - 168
2,4-D	4.60	5.33		ug/L		116	15 - 140
2,4-DB	5.00	5.33		ug/L		107	63 - 148
Dalapon	5.20	4.78		ug/L		92	51 - 141
Dicamba	4.60	4.46		ug/L		97	53 - 153
Dichlorprop	4.60	4.91		ug/L		107	39 - 136
Dinoseb	4.60	4.36		ug/L		95	10 - 142
MCPA	466	514		ug/L		110	50 - 150
MCPP	467	482		ug/L		103	67 - 141
Silvex (2,4,5-TP)	4.60	5.22		ug/L		114	45 - 165

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*91*		*50 - 150*
2,4-Dichlorophenylacetic acid	*95*		*50 - 150*

Lab Sample ID: 280-36632-O-8-A MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151352 — **Prep Batch: 150843**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		5.19	5.93		ug/L		114	29 - 168	23	30
2,4-D	ND		4.97	5.74		ug/L		115	15 - 140	24	30
2,4-DB	ND		5.40	5.02		ug/L		93	63 - 148	14	30
Dalapon	ND		5.62	5.05		ug/L		90	51 - 141	17	30
Dicamba	ND		4.97	4.82		ug/L		97	53 - 153	17	30
Dichlorprop	ND		4.97	5.06		ug/L		102	39 - 136	18	30
Dinoseb	ND		4.97	4.94		ug/L		99	10 - 142	7	30
MCPA	ND		503	468		ug/L		93	50 - 150	17	30
MCPP	62	J p	504	503		ug/L		100	67 - 141	22	30
Silvex (2,4,5-TP)	ND		4.97	5.55		ug/L		112	45 - 165	22	30

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 280-36632-O-8-A MSD
Matrix: Water
Analysis Batch: 151352

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 150843

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*90*		*50 - 150*
2,4-Dichlorophenylacetic acid	*93*		*50 - 150*

Lab Sample ID: 280-36632-W-8-A MS
Matrix: Water
Analysis Batch: 151352

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 150843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	ND		5.15	4.69		ug/L		91	29 - 168
2,4-D	ND		4.94	4.49		ug/L		91	15 - 140
2,4-DB	ND		5.36	4.34		ug/L		81	63 - 148
Dalapon	ND		5.58	4.24		ug/L		76	51 - 141
Dicamba	ND		4.94	4.06		ug/L		82	53 - 153
Dichlorprop	ND		4.94	4.23	J	ug/L		86	39 - 136
Dinoseb	ND		4.94	4.60		ug/L		93	10 - 142
MCPA	ND		500	395	J	ug/L		79	50 - 150
MCPP	62	J p	501	403	J	ug/L		80	67 - 141
Silvex (2,4,5-TP)	ND		4.94	4.43		ug/L		90	45 - 165

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*71*		*50 - 150*
2,4-Dichlorophenylacetic acid	*72*		*50 - 150*

Lab Sample ID: MB 280-151465/1-A
Matrix: Solid
Analysis Batch: 152245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	2.3	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
2,4-D	ND		40	14	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
2,4-DB	ND		80	7.4	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
Dalapon	ND		100	1.4	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
Dicamba	ND		40	1.4	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
Dichlorprop	ND		40	3.2	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
Dinoseb	ND		40	1.4	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
MCPA	ND		6500	2000	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
MCPP	ND		6500	2000	ug/Kg		12/10/12 20:00	12/14/12 19:28	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg		12/10/12 20:00	12/14/12 19:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*73*		*50 - 150*	*12/10/12 20:00*	*12/14/12 19:28*	*1*
2,4-Dichlorophenylacetic acid	*78*		*50 - 150*	*12/10/12 20:00*	*12/14/12 19:28*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 280-151465/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152245 — **Prep Batch: 151465**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	94.9	89.9		ug/Kg		95	24 - 115
2,4-D	90.9	91.7		ug/Kg		101	32 - 115
2,4-DB	98.8	84.9		ug/Kg		86	37 - 119
Dalapon	103	73.2	J	ug/Kg		71	11 - 115
Dicamba	90.9	85.8		ug/Kg		94	11 - 115
Dichlorprop	90.9	85.0		ug/Kg		93	35 - 115
Dinoseb	90.9	6.03	J	ug/Kg		7	5 - 166
MCPA	9210	8390		ug/Kg		91	37 - 115
MCPP	9220	9620		ug/Kg		104	48 - 132
Silvex (2,4,5-TP)	90.9	89.4		ug/Kg		98	53 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*50 - 150*
2,4-Dichlorophenylacetic acid	*87*		*50 - 150*

Lab Sample ID: 280-36819-J-14-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152245 — **Prep Batch: 151465**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	ND		105	100		ug/Kg	☼	96	24 - 115
2,4-D	ND		100	102		ug/Kg	☼	102	32 - 115
2,4-DB	ND		109	92.7		ug/Kg	☼	85	37 - 119
Dalapon	ND		113	75.7	J	ug/Kg	☼	67	11 - 115
Dicamba	ND		100	101		ug/Kg	☼	101	11 - 115
Dichlorprop	ND		100	89.9		ug/Kg	☼	90	35 - 115
Dinoseb	ND		100	5.29	J	ug/Kg	☼	5	5 - 166
MCPA	ND		10200	8830		ug/Kg	☼	87	37 - 115
MCPP	ND		10200	10700		ug/Kg	☼	105	48 - 132
Silvex (2,4,5-TP)	ND		100	98.6		ug/Kg	☼	98	53 - 134

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*83*		*50 - 150*
2,4-Dichlorophenylacetic acid	*94*		*50 - 150*

Lab Sample ID: 280-36819-J-14-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152245 — **Prep Batch: 151465**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		104	93.8		ug/Kg	☼	90	24 - 115	7	40
2,4-D	ND		99.9	95.1		ug/Kg	☼	95	32 - 115	7	40
2,4-DB	ND		109	76.6	J	ug/Kg	☼	70	37 - 119	19	50
Dalapon	ND		113	66.8	J	ug/Kg	☼	59	11 - 115	13	50
Dicamba	ND		99.9	95.1		ug/Kg	☼	95	11 - 115	6	50
Dichlorprop	ND		99.9	85.7		ug/Kg	☼	86	35 - 115	5	50
Dinoseb	ND		99.9	5.54	J	ug/Kg	☼	6	5 - 166	5	50

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 280-36819-J-14-G MSD
Matrix: Solid
Analysis Batch: 152245

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 151465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MCPA	ND		10100	8760		ug/Kg	☼	87	37 - 115	1	50
MCPP	ND		10100	10000		ug/Kg	☼	99	48 - 132	6	50
Silvex (2,4,5-TP)	ND		99.9	91.7		ug/Kg	☼	92	53 - 134	7	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*80*		*50 - 150*
2,4-Dichlorophenylacetic acid	*90*		*50 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-151251/1-A
Matrix: Water
Analysis Batch: 151722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.018	mg/L		12/11/12 08:15	12/11/12 20:55	1
Boron	ND		0.10	0.0044	mg/L		12/11/12 08:15	12/11/12 20:55	1
Calcium	ND		0.20	0.035	mg/L		12/11/12 08:15	12/11/12 20:55	1
Iron	ND		0.10	0.022	mg/L		12/11/12 08:15	12/11/12 20:55	1
Lithium	ND		0.010	0.0026	mg/L		12/11/12 08:15	12/11/12 20:55	1
Magnesium	ND		0.20	0.011	mg/L		12/11/12 08:15	12/11/12 20:55	1
Manganese	ND		0.010	0.00025	mg/L		12/11/12 08:15	12/11/12 20:55	1
Phosphorus	ND		3.0	0.014	mg/L		12/11/12 08:15	12/11/12 20:55	1
Potassium	ND		3.0	0.24	mg/L		12/11/12 08:15	12/11/12 20:55	1
Sodium	ND		1.0	0.092	mg/L		12/11/12 08:15	12/11/12 20:55	1
Strontium	ND		0.010	0.00030	mg/L		12/11/12 08:15	12/11/12 20:55	1
Tin	ND		0.10	0.0058	mg/L		12/11/12 08:15	12/11/12 20:55	1
Titanium	ND		0.010	0.00060	mg/L		12/11/12 08:15	12/11/12 20:55	1
Zirconium	ND		0.015	0.0024	mg/L		12/11/12 08:15	12/11/12 20:55	1

Lab Sample ID: LCS 280-151251/2-A
Matrix: Water
Analysis Batch: 151722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2.00	1.97		mg/L		98	80 - 120
Boron	1.00	0.965		mg/L		97	80 - 120
Calcium	50.0	47.6		mg/L		95	80 - 120
Iron	1.00	0.974		mg/L		97	80 - 120
Lithium	1.00	1.03		mg/L		103	80 - 120
Magnesium	50.0	51.5		mg/L		103	80 - 120
Manganese	0.500	0.483		mg/L		97	80 - 120
Phosphorus	10.0	10.4		mg/L		104	80 - 120
Potassium	50.0	49.4		mg/L		99	80 - 120
Sodium	50.0	53.1		mg/L		106	80 - 120
Strontium	1.00	1.02		mg/L		102	80 - 120
Tin	2.00	2.04		mg/L		102	80 - 120
Titanium	1.00	1.03		mg/L		103	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-151251/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151722 — **Prep Batch: 151251**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zirconium	0.500	0.476		mg/L		95	80 - 120

Lab Sample ID: 280-36661-A-4-F MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151722 — **Prep Batch: 151251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.4		2.00	15.7	F	mg/L		514	75 - 125
Boron	0.31		1.00	1.27		mg/L		96	75 - 125
Calcium	89		50.0	136		mg/L		95	75 - 125
Iron	9.8		1.00	11.3	4	mg/L		145	75 - 125
Lithium	0.14		1.00	1.21		mg/L		107	75 - 125
Magnesium	260		50.0	310	4	mg/L		98	75 - 125
Manganese	0.21		0.500	0.698		mg/L		97	75 - 125
Phosphorus	0.069	J	10.0	10.7		mg/L		106	75 - 125
Potassium	13		50.0	65.3		mg/L		105	75 - 125
Sodium	98		50.0	153		mg/L		110	75 - 125
Strontium	1.4		1.00	2.42		mg/L		104	75 - 125
Tin	ND		2.00	2.00		mg/L		100	75 - 125
Titanium	0.11		1.00	1.17		mg/L		106	75 - 125
Zirconium	0.0037	J	0.500	0.491		mg/L		97	75 - 125

Lab Sample ID: 280-36661-A-4-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151722 — **Prep Batch: 151251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	5.4		2.00	16.3	F	mg/L		547	75 - 125	4	20
Boron	0.31		1.00	1.25		mg/L		94	75 - 125	2	20
Calcium	89		50.0	134		mg/L		91	75 - 125	2	20
Iron	9.8		1.00	11.7	4	mg/L		186	75 - 125	4	20
Lithium	0.14		1.00	1.19		mg/L		105	75 - 125	1	20
Magnesium	260		50.0	307	4	mg/L		93	75 - 125	1	20
Manganese	0.21		0.500	0.697		mg/L		96	75 - 125	0	20
Phosphorus	0.069	J	10.0	10.5		mg/L		105	75 - 125	1	20
Potassium	13		50.0	64.6		mg/L		103	75 - 125	1	20
Sodium	98		50.0	150		mg/L		104	75 - 125	2	20
Strontium	1.4		1.00	2.39		mg/L		101	75 - 125	2	20
Tin	ND		2.00	1.97		mg/L		98	75 - 125	2	20
Titanium	0.11		1.00	1.17		mg/L		106	75 - 125	0	20
Zirconium	0.0037	J	0.500	0.482		mg/L		96	75 - 125	2	20

Lab Sample ID: MB 280-151259/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Boron	ND		9.7	0.98	mg/Kg		12/11/12 08:15	12/11/12 19:05	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 280-151259/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		50	14	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Iron	ND		34	3.8	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Lithium	ND		37	0.30	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Magnesium	ND		10	3.7	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Manganese	ND		500	0.10	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Phosphorus	ND		10	1.6	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Potassium	ND		6400	41	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Sodium	ND		500	59	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Strontium	ND		0.50	0.036	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Tin	ND		11	0.91	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Titanium	ND		1.0	0.14	mg/Kg		12/11/12 08:15	12/11/12 19:05	1
Zirconium	ND		8.6	0.35	mg/Kg		12/11/12 08:15	12/11/12 19:05	1

Lab Sample ID: LCS 280-151259/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	188	J	mg/Kg		94	80 - 120
Boron	100	91.9		mg/Kg		92	80 - 120
Calcium	5000	4690		mg/Kg		94	80 - 120
Iron	100	95.5		mg/Kg		96	80 - 120
Lithium	100	97.9		mg/Kg		98	80 - 120
Magnesium	5000	4780		mg/Kg		96	80 - 120
Manganese	50.0	46.8	J	mg/Kg		94	80 - 120
Phosphorus	1000	983		mg/Kg		98	80 - 120
Potassium	5000	4820	J	mg/Kg		96	80 - 120
Sodium	5000	5050		mg/Kg		101	80 - 120
Strontium	100	96.7		mg/Kg		97	80 - 120
Tin	200	192		mg/Kg		96	80 - 120
Titanium	100	96.6		mg/Kg		97	80 - 120
Zirconium	50.0	46.4		mg/Kg		93	80 - 120

Lab Sample ID: 280-36640-3 MS — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	12000	J	194	15600	J 4	mg/Kg	☼	2123	75 - 125
Boron	1.2	J	96.9	76.0		mg/Kg	☼	77	75 - 125
Calcium	6100		4850	10900		mg/Kg	☼	99	75 - 125
Iron	17000		96.9	23800	4	mg/Kg	☼	6713	75 - 125
Lithium	18	J	96.9	107		mg/Kg	☼	92	75 - 125
Magnesium	4200		4850	8640		mg/Kg	☼	91	75 - 125
Manganese	240	J	48.5	295	J 4	mg/Kg	☼	116	75 - 125
Phosphorus	350		969	1200		mg/Kg	☼	88	75 - 125
Potassium	2600	J	4850	6970		mg/Kg	☼	91	75 - 125
Sodium	230	J	4850	4820		mg/Kg	☼	95	75 - 125
Strontium	22		96.9	111		mg/Kg	☼	92	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36640-3 MS — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tin	3.2	J	194	163		mg/Kg	☼	83	75 - 125
Titanium	790		96.9	926	4	mg/Kg	☼	141	75 - 125
Zirconium	1.7	J	48.5	43.3		mg/Kg	☼	86	75 - 125

Lab Sample ID: 280-36640-3 MSD — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151721 — **Prep Batch: 151259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	12000	J	190	15900	J 4	mg/Kg	☼	2285	75 - 125	2	20
Boron	1.2	J	95.2	75.4		mg/Kg	☼	78	75 - 125	1	20
Calcium	6100		4760	10900		mg/Kg	☼	100	75 - 125	0	20
Iron	17000		95.2	17900	4 F	mg/Kg	☼	702	75 - 125	28	20
Lithium	18	J	95.2	106		mg/Kg	☼	93	75 - 125	1	20
Magnesium	4200		4760	8710		mg/Kg	☼	94	75 - 125	1	20
Manganese	240	J	47.6	284	J 4	mg/Kg	☼	94	75 - 125	4	20
Phosphorus	350		952	1200		mg/Kg	☼	90	75 - 125	0	20
Potassium	2600	J	4760	6900		mg/Kg	☼	91	75 - 125	1	20
Sodium	230	J	4760	4720		mg/Kg	☼	94	75 - 125	2	20
Strontium	22		95.2	110		mg/Kg	☼	92	75 - 125	1	20
Tin	3.2	J	190	162		mg/Kg	☼	83	75 - 125	1	20
Titanium	790		95.2	965	4	mg/Kg	☼	185	75 - 125	4	20
Zirconium	1.7	J	47.6	42.7		mg/Kg	☼	86	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-151250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00040	mg/L		12/11/12 08:15	12/11/12 19:37	1
Arsenic	ND		0.0050	0.00033	mg/L		12/11/12 08:15	12/11/12 19:37	1
Barium	ND		0.0010	0.00029	mg/L		12/11/12 08:15	12/11/12 19:37	1
Beryllium	ND		0.0010	0.000080	mg/L		12/11/12 08:15	12/11/12 19:37	1
Cadmium	ND		0.0010	0.00010	mg/L		12/11/12 08:15	12/11/12 19:37	1
Chromium	ND		0.0020	0.00050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Cobalt	ND		0.0010	0.000054	mg/L		12/11/12 08:15	12/11/12 19:37	1
Copper	ND		0.0020	0.00056	mg/L		12/11/12 08:15	12/11/12 19:37	1
Lead	ND		0.0010	0.00018	mg/L		12/11/12 08:15	12/11/12 19:37	1
Molybdenum	ND		0.0020	0.00014	mg/L		12/11/12 08:15	12/11/12 19:37	1
Nickel	ND		0.0020	0.00030	mg/L		12/11/12 08:15	12/11/12 19:37	1
Silver	ND		0.0050	0.000033	mg/L		12/11/12 08:15	12/11/12 19:37	1
Thallium	0.000287	J	0.0010	0.000050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Vanadium	ND		0.0050	0.00050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Zinc	ND		0.010	0.0020	mg/L		12/11/12 08:15	12/11/12 19:37	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-151250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0050	0.00070	mg/L		12/11/12 08:15	12/12/12 14:09	1

Lab Sample ID: LCS 280-151250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0400	0.0406		mg/L		102	80 - 120
Arsenic	0.0400	0.0407		mg/L		102	80 - 120
Barium	0.0400	0.0409		mg/L		102	80 - 120
Beryllium	0.0400	0.0415		mg/L		104	80 - 120
Cadmium	0.0400	0.0405		mg/L		101	80 - 120
Chromium	0.0400	0.0420		mg/L		105	80 - 120
Cobalt	0.0400	0.0419		mg/L		105	80 - 120
Copper	0.0400	0.0415		mg/L		104	80 - 120
Lead	0.0400	0.0448		mg/L		112	80 - 120
Molybdenum	0.0400	0.0408		mg/L		102	80 - 120
Nickel	0.0400	0.0420		mg/L		105	80 - 120
Silver	0.0400	0.0409		mg/L		102	80 - 120
Thallium	0.0400	0.0412		mg/L		103	80 - 120
Vanadium	0.0400	0.0404		mg/L		101	80 - 120
Zinc	0.0400	0.0413		mg/L		103	80 - 120

Lab Sample ID: LCS 280-151250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.0400	0.0402		mg/L		100	80 - 120

Lab Sample ID: 280-36661-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0012	J	0.0400	0.0345		mg/L		83	75 - 125
Arsenic	0.0085		0.0400	0.0483		mg/L		100	75 - 125
Barium	0.039		0.0400	0.0768		mg/L		95	75 - 125
Beryllium	0.00035	J	0.0400	0.0416		mg/L		103	75 - 125
Cadmium	ND		0.0400	0.0396		mg/L		99	75 - 125
Chromium	0.0082		0.0400	0.0474		mg/L		98	75 - 125
Cobalt	0.023		0.0400	0.0630		mg/L		100	75 - 125
Copper	0.010		0.0400	0.0490		mg/L		96	75 - 125
Lead	0.0063		0.0400	0.0458		mg/L		99	75 - 125
Molybdenum	0.0026		0.0400	0.0427		mg/L		100	75 - 125
Nickel	0.033		0.0400	0.0716		mg/L		98	75 - 125
Silver	ND		0.0400	0.0394		mg/L		99	75 - 125
Thallium	0.00092	J B	0.0400	0.0394		mg/L		96	75 - 125
Vanadium	0.015		0.0400	0.0518		mg/L		93	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36661-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc	0.036		0.0400	0.0690		mg/L		83	75 - 125		

Lab Sample ID: 280-36661-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Selenium	0.0023	J	0.0400	0.0458		mg/L		109	75 - 125		

Lab Sample ID: 280-36661-A-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0012	J	0.0400	0.0342		mg/L		82	75 - 125	1	20
Arsenic	0.0085		0.0400	0.0478		mg/L		98	75 - 125	1	20
Barium	0.039		0.0400	0.0741		mg/L		88	75 - 125	4	20
Beryllium	0.00035	J	0.0400	0.0408		mg/L		101	75 - 125	2	20
Cadmium	ND		0.0400	0.0394		mg/L		98	75 - 125	0	20
Chromium	0.0082		0.0400	0.0481		mg/L		100	75 - 125	1	20
Cobalt	0.023		0.0400	0.0628		mg/L		100	75 - 125	0	20
Copper	0.010		0.0400	0.0493		mg/L		97	75 - 125	1	20
Lead	0.0063		0.0400	0.0458		mg/L		99	75 - 125	0	20
Molybdenum	0.0026		0.0400	0.0433		mg/L		102	75 - 125	1	20
Nickel	0.033		0.0400	0.0728		mg/L		101	75 - 125	2	20
Silver	ND		0.0400	0.0393		mg/L		98	75 - 125	0	20
Thallium	0.00092	J B	0.0400	0.0401		mg/L		98	75 - 125	2	20
Vanadium	0.015		0.0400	0.0521		mg/L		93	75 - 125	1	20
Zinc	0.036		0.0400	0.0710		mg/L		88	75 - 125	3	20

Lab Sample ID: 280-36661-A-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.0023	J	0.0400	0.0453		mg/L		108	75 - 125	1	20

Lab Sample ID: MB 280-151258/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0226	J	8.7	0.014	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Arsenic	ND		15	0.051	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Barium	0.775	J	140	0.071	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Beryllium	ND		1.1	0.023	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Chromium	0.109	J	37	0.076	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Cobalt	0.0375	J	21	0.0066	mg/Kg		12/11/12 08:15	12/11/12 16:35	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-151258/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.136	J	29	0.071	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Lead	0.0647	J	34	0.018	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Nickel	0.0634	J	29	0.025	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Selenium	ND		0.66	0.13	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Silver	ND		0.79	0.020	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Thallium	0.0390	J	0.46	0.0035	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Vanadium	0.188	J	62	0.039	mg/Kg		12/11/12 08:15	12/11/12 16:35	1
Zinc	0.660	J	110	0.32	mg/Kg		12/11/12 08:15	12/11/12 16:35	1

Lab Sample ID: LCS 280-151258/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	18.9		mg/Kg		94	80 - 120
Arsenic	20.0	18.3		mg/Kg		92	80 - 120
Barium	20.0	19.1	J	mg/Kg		95	80 - 120
Beryllium	20.0	19.5		mg/Kg		97	80 - 120
Cadmium	20.0	19.0		mg/Kg		95	80 - 120
Chromium	20.0	19.3	J	mg/Kg		97	80 - 120
Cobalt	20.0	19.6	J	mg/Kg		98	80 - 120
Copper	20.0	19.8	J	mg/Kg		99	80 - 120
Lead	20.0	19.8	J	mg/Kg		99	80 - 120
Molybdenum	20.0	18.8		mg/Kg		94	80 - 120
Nickel	20.0	19.5	J	mg/Kg		97	80 - 120
Selenium	20.0	18.0		mg/Kg		90	80 - 120
Silver	20.0	18.9		mg/Kg		95	80 - 120
Thallium	20.0	20.2		mg/Kg		101	80 - 120
Vanadium	20.0	19.1	J	mg/Kg		95	80 - 120
Zinc	20.0	19.1	J	mg/Kg		95	80 - 120

Lab Sample ID: 280-36640-3 MS — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.051	J B	21.7	0.836	J F	mg/Kg	☼	4	75 - 125
Arsenic	4.2	J	21.7	24.5		mg/Kg	☼	94	75 - 125
Barium	85	J B	21.7	108	J	mg/Kg	☼	108	75 - 125
Beryllium	0.58	J	21.7	22.5		mg/Kg	☼	101	75 - 125
Cadmium	0.35	J	21.7	20.5		mg/Kg	☼	93	75 - 125
Chromium	16	J B	21.7	37.1	J	mg/Kg	☼	99	75 - 125
Cobalt	5.9	J B	21.7	26.6		mg/Kg	☼	95	75 - 125
Copper	11	J B	21.7	37.2		mg/Kg	☼	120	75 - 125
Lead	12	J B	21.7	28.6	J	mg/Kg	☼	77	75 - 125
Molybdenum	0.59	J	21.7	17.3		mg/Kg	☼	77	75 - 125
Nickel	10	J B	21.7	30.4	J	mg/Kg	☼	93	75 - 125
Selenium	0.18	J	21.7	19.2		mg/Kg	☼	88	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36640-3 MS — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.035	J	21.7	19.2		mg/Kg	☼	88	75 - 125
Thallium	0.28	J B	21.7	21.4		mg/Kg	☼	97	75 - 125
Vanadium	31	J B	21.7	52.0	J	mg/Kg	☼	97	75 - 125
Zinc	88	J B	21.7	87.6	J 4	mg/Kg	☼	-1	75 - 125

Lab Sample ID: 280-36640-3 MSD — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151258**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.051	J B	19.9	0.698	J F	mg/Kg	☼	3	75 - 125	18	20
Arsenic	4.2	J	19.9	22.2		mg/Kg	☼	90	75 - 125	10	20
Barium	85	J B	19.9	102	J 4	mg/Kg	☼	86	75 - 125	6	20
Beryllium	0.58	J	19.9	21.1		mg/Kg	☼	103	75 - 125	6	20
Cadmium	0.35	J	19.9	19.1		mg/Kg	☼	94	75 - 125	7	20
Chromium	16	J B	19.9	34.3	J	mg/Kg	☼	94	75 - 125	8	20
Cobalt	5.9	J B	19.9	24.8		mg/Kg	☼	95	75 - 125	7	20
Copper	11	J B	19.9	28.1	J F	mg/Kg	☼	85	75 - 125	28	20
Lead	12	J B	19.9	26.8	J	mg/Kg	☼	75	75 - 125	7	20
Molybdenum	0.59	J	19.9	16.0		mg/Kg	☼	77	75 - 125	8	20
Nickel	10	J B	19.9	28.4	J	mg/Kg	☼	91	75 - 125	7	20
Selenium	0.18	J	19.9	17.5		mg/Kg	☼	87	75 - 125	9	20
Silver	0.035	J	19.9	17.7		mg/Kg	☼	89	75 - 125	8	20
Thallium	0.28	J B	19.9	19.6		mg/Kg	☼	97	75 - 125	9	20
Vanadium	31	J B	19.9	49.1	J	mg/Kg	☼	91	75 - 125	6	20
Zinc	88	J B	19.9	85.6	J 4	mg/Kg	☼	-11	75 - 125	2	20

Lab Sample ID: MB 280-151897/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151897**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Arsenic	ND		15	0.051	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Barium	ND		140	0.071	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Chromium	ND		37	0.076	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Cobalt	ND		21	0.0066	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Copper	ND		29	0.071	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Lead	ND		34	0.018	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Nickel	ND		29	0.025	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Silver	ND		0.79	0.020	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Thallium	ND		0.46	0.0035	mg/Kg		12/13/12 13:00	12/14/12 14:06	1
Zinc	ND		110	0.32	mg/Kg		12/13/12 13:00	12/14/12 14:06	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-151897/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151897**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.0		mg/Kg		95	80 - 120
Arsenic	20.0	15.9		mg/Kg		80	80 - 120
Barium	20.0	16.1	J	mg/Kg		81	80 - 120
Chromium	20.0	16.3	J	mg/Kg		82	80 - 120
Cobalt	20.0	16.6	J	mg/Kg		83	80 - 120
Copper	20.0	16.6	J	mg/Kg		83	80 - 120
Lead	20.0	16.4	J	mg/Kg		82	80 - 120
Molybdenum	20.0	18.8		mg/Kg		94	80 - 120
Nickel	20.0	16.9	J	mg/Kg		85	80 - 120
Silver	20.0	16.0		mg/Kg		80	80 - 120
Thallium	20.0	17.1		mg/Kg		85	80 - 120
Zinc	20.0	15.9	J	mg/Kg		80	80 - 120

Lab Sample ID: 280-36640-28 MS — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151897**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.015	J	19.7	1.94	J F	mg/Kg	☼	10	75 - 125
Arsenic	3.1	J	19.7	22.0		mg/Kg	☼	96	75 - 125
Barium	69	J	19.7	83.7	J	mg/Kg	☼	76	75 - 125
Chromium	15	J	19.7	34.9	J	mg/Kg	☼	101	75 - 125
Cobalt	4.6	J	19.7	24.0		mg/Kg	☼	99	75 - 125
Copper	9.3	J	19.7	27.2	J	mg/Kg	☼	91	75 - 125
Lead	8.8	J	19.7	28.4	J	mg/Kg	☼	100	75 - 125
Molybdenum	0.47	J	19.7	17.4		mg/Kg	☼	86	75 - 125
Nickel	12	J	19.7	30.1		mg/Kg	☼	94	75 - 125
Silver	1.9		19.7	19.5		mg/Kg	☼	89	75 - 125
Thallium	0.22	J	19.7	20.3		mg/Kg	☼	102	75 - 125
Zinc	63	J	19.7	80.4	J	mg/Kg	☼	88	75 - 125

Lab Sample ID: 280-36640-28 MSD — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151897**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.015	J	19.3	1.83	J F	mg/Kg	☼	9	75 - 125	6	20
Arsenic	3.1	J	19.3	22.7		mg/Kg	☼	101	75 - 125	3	20
Barium	69	J	19.3	89.0	J	mg/Kg	☼	105	75 - 125	6	20
Chromium	15	J	19.3	36.8		mg/Kg	☼	113	75 - 125	6	20
Cobalt	4.6	J	19.3	25.5		mg/Kg	☼	108	75 - 125	6	20
Copper	9.3	J	19.3	28.8		mg/Kg	☼	101	75 - 125	6	20
Lead	8.8	J	19.3	28.7	J	mg/Kg	☼	103	75 - 125	1	20
Molybdenum	0.47	J	19.3	16.8		mg/Kg	☼	85	75 - 125	3	20
Nickel	12	J	19.3	31.0		mg/Kg	☼	101	75 - 125	3	20
Silver	1.9		19.3	19.2		mg/Kg	☼	89	75 - 125	2	20
Thallium	0.22	J	19.3	19.8		mg/Kg	☼	101	75 - 125	2	20
Zinc	63	J	19.3	94.8	J F	mg/Kg	☼	164	75 - 125	16	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-152296/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152296**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		1.1	0.023	mg/Kg		12/17/12 08:00	12/17/12 21:14	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/17/12 08:00	12/17/12 21:14	1
Selenium	ND		0.66	0.13	mg/Kg		12/17/12 08:00	12/17/12 21:14	1
Vanadium	ND		62	0.039	mg/Kg		12/17/12 08:00	12/17/12 21:14	1

Lab Sample ID: LCS 280-152296/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152296**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	20.0	19.8		mg/Kg		99	80 - 120
Cadmium	20.0	19.2		mg/Kg		96	80 - 120
Selenium	20.0	19.5		mg/Kg		97	80 - 120
Vanadium	20.0	18.8	J	mg/Kg		94	80 - 120

Lab Sample ID: 280-36640-28 MS — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.41	J	20.9	21.2		mg/Kg	☼	100	75 - 125
Cadmium	0.37	J	20.9	20.8		mg/Kg	☼	98	75 - 125
Selenium	0.77		20.9	20.8		mg/Kg	☼	96	75 - 125
Vanadium	23	J	20.9	45.2	J	mg/Kg	☼	105	75 - 125

Lab Sample ID: 280-36640-28 MSD — **Client Sample ID: SL-634-SA6-SB-2.0-3.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.41	J	19.7	20.1		mg/Kg	☼	100	75 - 125	6	20
Cadmium	0.37	J	19.7	19.5		mg/Kg	☼	97	75 - 125	6	20
Selenium	0.77		19.7	19.5		mg/Kg	☼	95	75 - 125	6	20
Vanadium	23	J	19.7	43.6	J	mg/Kg	☼	103	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-151068/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000027	mg/L		12/10/12 12:50	12/10/12 20:03	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-151068/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00500	0.00498		mg/L		100	90 - 115		

Lab Sample ID: 280-36711-G-20-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00500	0.00476		mg/L		95	75 - 125		

Lab Sample ID: 280-36711-G-20-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00472		mg/L		94	75 - 125	1	20

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 280-151302/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151791 — **Prep Batch: 151302**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/11/12 12:50	12/11/12 18:33	1

Lab Sample ID: LCS 280-151302/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151791 — **Prep Batch: 151302**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.417	0.493		mg/Kg		118	85 - 120		

Lab Sample ID: 280-36640-3 MS — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151791 — **Prep Batch: 151302**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.24		0.468	0.735		mg/Kg	☼	105	65 - 135		

Lab Sample ID: 280-36640-3 MSD — **Client Sample ID: SL-519-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151791 — **Prep Batch: 151302**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.24		0.476	0.724		mg/Kg	☼	101	65 - 135	1	20

Method: 9040C - pH

Lab Sample ID: LCS 280-150785/30 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150785

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.990		SU		100	90 - 110		

Lab Sample ID: LCSD 280-150785/31 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150785

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	7.000		SU		100	90 - 110	0	5

Lab Sample ID: 280-36615-C-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150785

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.18			7.170		SU				0.1	5
Temperature	20.0			20.00		Degrees C				0	10

Method: 9045D - pH

Lab Sample ID: LCS 280-152317/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152317

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.980		SU		100	95 - 105		

Lab Sample ID: LCSD 280-152317/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152317

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	6.980		SU		100	95 - 105	0	5

Lab Sample ID: 280-36640-24 DU — **Client Sample ID: SL-520-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152317

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	8.63			8.640		SU				0.1	5
Temperature	20.4			20.40		Degrees C				0	5

Method: Moisture - Percent Moisture

Lab Sample ID: 280-36640-31 DU — **Client Sample ID: SL-635-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151424

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	18			18		%				1	20

GC/MS Semi VOA

Prep Batch: 150872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	3510C	
LCS 280-150872/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-150872/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-150872/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 151447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	3546	
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3546	
280-36640-10 MS	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3546	
280-36640-10 MSD	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3546	
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	3546	
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	3546	
LCS 280-151447/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-151447/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 151477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	8270C SIM	150872
LCS 280-150872/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	150872
LCSD 280-150872/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	150872
MB 280-150872/1-A	Method Blank	Total/NA	Water	8270C SIM	150872

Analysis Batch: 152451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151447
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	8270C SIM	151447
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	8270C SIM	151447
280-36640-10 MS	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	8270C SIM	151447
280-36640-10 MSD	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	8270C SIM	151447
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	8270C SIM	151447
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	151447
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8270C SIM	151447
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151447
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	8270C SIM	151447

GC/MS Semi VOA (Continued)

Analysis Batch: 152451 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-151447/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	151447
MB 280-151447/1-A	Method Blank	Total/NA	Solid	8270C SIM	151447

Analysis Batch: 152612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	None	
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	None	
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	None	
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	None	
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	None	
280-36640-37	EB-120512	Total/NA	Water	None	

GC VOA

Prep Batch: 150911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-6	SL-519-SA6-SB-4.5	Total/NA	Solid	5035	
280-36640-9	SL-519-SA6-SB-9.5	Total/NA	Solid	5035	
280-36640-12	SL-519-SA6-SB-14.5	Total/NA	Solid	5035	
280-36640-15	SL-519-SA6-SB-21.5	Total/NA	Solid	5035	
280-36640-22	SL-633-SA6-SB-3.0	Total/NA	Solid	5035	
280-36640-29	SL-634-SA6-SB-2.5	Total/NA	Solid	5035	
280-36640-36	SL-636-SA6-SB-3.0	Total/NA	Solid	5035	
LCS 280-150911/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-150911/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 280-150911/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 151153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36415-J-1 MS	Matrix Spike	Total/NA	Water	8015B	
280-36415-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
280-36640-1	TB-120512	Total/NA	Water	8015B	
280-36640-37	EB-120512	Total/NA	Water	8015B	
LCS 280-151153/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-151153/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-151153/7	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 151628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-6	SL-519-SA6-SB-4.5	Total/NA	Solid	8015B	150911
280-36640-9	SL-519-SA6-SB-9.5	Total/NA	Solid	8015B	150911

GC VOA (Continued)

Analysis Batch: 151628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-12	SL-519-SA6-SB-14.5	Total/NA	Solid	8015B	150911
280-36640-15	SL-519-SA6-SB-21.5	Total/NA	Solid	8015B	150911
280-36640-22	SL-633-SA6-SB-3.0	Total/NA	Solid	8015B	150911
280-36640-29	SL-634-SA6-SB-2.5	Total/NA	Solid	8015B	150911
280-36640-36	SL-636-SA6-SB-3.0	Total/NA	Solid	8015B	150911
LCS 280-150911/2-A	Lab Control Sample	Total/NA	Solid	8015B	150911
LCSD 280-150911/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	150911
MB 280-150911/1-A	Method Blank	Total/NA	Solid	8015B	150911

GC Semi VOA

Prep Batch: 150843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36632-O-8-A MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	
280-36632-W-8-A MS	Matrix Spike	Total/NA	Water	8151A	
280-36640-37	EB-120512	Total/NA	Water	8151A	
LCS 280-150843/2-A	Lab Control Sample	Total/NA	Water	8151A	
MB 280-150843/1-A	Method Blank	Total/NA	Water	8151A	

Leach Batch: 150896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	Increment, Prep	
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	Increment, Prep	
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	Increment, Prep	
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26 - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26 MS	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26 MS - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26 MSD	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26 MSD - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	

Prep Batch: 151138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	3510C	
LCS 280-151138/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-151138/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-151138/6-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-151138/8-A	Lab Control Sample	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 151138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-151138/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 280-151138/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 280-151138/7-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 280-151138/9-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-151138/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 151296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	3546	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	3546	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3546	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	3546	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26 - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26 MS	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26 MS - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26 MSD	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-26 MSD - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150896
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150896
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150896
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150896
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3546	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3546	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	3546	150896
LCS 280-151296/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-151296/3-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-151296/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-151296/5-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-151296/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 151352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36632-O-8-A MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	150843
280-36632-W-8-A MS	Matrix Spike	Total/NA	Water	8151A	150843
280-36640-37	EB-120512	Total/NA	Water	8151A	150843
LCS 280-150843/2-A	Lab Control Sample	Total/NA	Water	8151A	150843
MB 280-150843/1-A	Method Blank	Total/NA	Water	8151A	150843

Prep Batch: 151465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8151A	150896
280-36819-J-14-F MS	Matrix Spike	Total/NA	Solid	8151A	
280-36819-J-14-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	

GC Semi VOA (Continued)

Prep Batch: 151465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-151465/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 280-151465/1-A	Method Blank	Total/NA	Solid	8151A	

Prep Batch: 151516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	3550C	
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3550C	
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	3550C	
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36640-20 MS	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36640-20 MSD	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3550C	
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	3550C	
LCS 280-151516/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 280-151516/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 151548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	8081B	151138
LCS 280-151138/2-A	Lab Control Sample	Total/NA	Water	8081B	151138
LCS 280-151138/6-A	Lab Control Sample	Total/NA	Water	8081B	151138
LCSD 280-151138/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	151138
LCSD 280-151138/7-A	Lab Control Sample Dup	Total/NA	Water	8081B	151138
MB 280-151138/1-A	Method Blank	Total/NA	Water	8081B	151138

Prep Batch: 151564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	3510C	
LCS 280-151564/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-151564/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-151564/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 152217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	151516
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	8015B	151516
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	8015B	151516
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	8015B	151516
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	151516
280-36640-20 MS	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	151516

GC Semi VOA (Continued)

Analysis Batch: 152217 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-20 MSD	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	151516
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8015B	151516
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	151516
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	8015B	151516
LCS 280-151516/2-A	Lab Control Sample	Total/NA	Solid	8015B	151516
MB 280-151516/1-A	Method Blank	Total/NA	Solid	8015B	151516

Analysis Batch: 152245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8151A	151465
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8151A	151465
280-36819-J-14-F MS	Matrix Spike	Total/NA	Solid	8151A	151465
280-36819-J-14-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	151465
LCS 280-151465/2-A	Lab Control Sample	Total/NA	Solid	8151A	151465
MB 280-151465/1-A	Method Blank	Total/NA	Solid	8151A	151465

Analysis Batch: 152260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
280-36640-26 MS	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
280-36640-26 MSD	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
LCS 280-151296/2-A	Lab Control Sample	Total/NA	Solid	8081B	151296
LCS 280-151296/3-A	Lab Control Sample	Total/NA	Solid	8081B	151296
MB 280-151296/1-A	Method Blank	Total/NA	Solid	8081B	151296

Analysis Batch: 152281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	151296
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	8082A	151296
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	8082A	151296
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	8082A	151296
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	151296
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	151296
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	151296
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	151296
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	151296
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	151296
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	151296
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	8082A	151296
280-36640-37	EB-120512	Total/NA	Water	8082A	151138
LCS 280-151138/4-A	Lab Control Sample	Total/NA	Water	8082A	151138
LCS 280-151138/8-A	Lab Control Sample	Total/NA	Water	8082A	151138

GC Semi VOA (Continued)

Analysis Batch: 152281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-151296/4-A	Lab Control Sample	Total/NA	Solid	8082A	151296
LCS 280-151296/5-A	Lab Control Sample	Total/NA	Solid	8082A	151296
LCSD 280-151138/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	151138
LCSD 280-151138/9-A	Lab Control Sample Dup	Total/NA	Water	8082A	151138
MB 280-151138/1-A	Method Blank	Total/NA	Water	8082A	151138
MB 280-151296/1-A	Method Blank	Total/NA	Solid	8082A	151296

Analysis Batch: 152487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	8015B	151564
LCS 280-151564/2-A	Lab Control Sample	Total/NA	Water	8015B	151564
LCSD 280-151564/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	151564
MB 280-151564/1-A	Method Blank	Total/NA	Water	8015B	151564

Analysis Batch: 152542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-26 - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
280-36640-26 MS - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
280-36640-26 MSD - DL	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	8081B	151296
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	8081B	151296

Metals

Leach Batch: 150896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	Increment, Prep	
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	Increment, Prep	
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	Increment, Prep	
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	

Prep Batch: 151068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	7470A	
280-36711-G-20-E MS	Matrix Spike	Total/NA	Water	7470A	
280-36711-G-20-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 280-151068/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 151068 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-151068/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 151250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	3020A	
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	3020A	
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	3020A	
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 280-151250/1-A	Method Blank	Total/NA	Water	3020A	

Prep Batch: 151251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	3010A	
280-36661-A-4-F MS	Matrix Spike	Total/NA	Water	3010A	
280-36661-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
LCS 280-151251/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-151251/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 151258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	3050B	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3050B	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	3050B	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150896
LCS 280-151258/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-151258/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 151259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	3050B	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	3050B	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	3050B	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896

Metals (Continued)

Prep Batch: 151259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	3050B	150896
LCS 280-151259/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-151259/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 151302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	7471B	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	7471B	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	7471B	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	7471B	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	150896
LCS 280-151302/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-151302/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 151560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	7470A	151068
280-36711-G-20-E MS	Matrix Spike	Total/NA	Water	7470A	151068
280-36711-G-20-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	151068
LCS 280-151068/2-A	Lab Control Sample	Total/NA	Water	7470A	151068
MB 280-151068/1-A	Method Blank	Total/NA	Water	7470A	151068

Analysis Batch: 151721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	151259
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	6010C	151259
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	6010C	151259
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	6010C	151259
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	151259
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6010C	151259
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259

Metals (Continued)

Analysis Batch: 151721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151259
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	6010C	151259
LCS 280-151259/2-A	Lab Control Sample	Total/NA	Solid	6010C	151259
MB 280-151259/1-A	Method Blank	Total/NA	Solid	6010C	151259

Analysis Batch: 151722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-37	EB-120512	Total/NA	Water	6010C	151251
280-36661-A-4-F MS	Matrix Spike	Total/NA	Water	6010C	151251
280-36661-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	151251
LCS 280-151251/2-A	Lab Control Sample	Total/NA	Water	6010C	151251
MB 280-151251/1-A	Method Blank	Total/NA	Water	6010C	151251

Analysis Batch: 151741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151258
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	6020A	151258
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	6020A	151258
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	6020A	151258
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	151258
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	151258
280-36640-37	EB-120512	Total/NA	Water	6020A	151250
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	6020A	151250
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	151250
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	6020A	151250
LCS 280-151258/2-A	Lab Control Sample	Total/NA	Solid	6020A	151258
MB 280-151250/1-A	Method Blank	Total/NA	Water	6020A	151250
MB 280-151258/1-A	Method Blank	Total/NA	Solid	6020A	151258

Analysis Batch: 151791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-3 MS	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-3 MSD	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151302
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	7471B	151302
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	7471B	151302
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	7471B	151302
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	151302
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	7471B	151302

Metals (Continued)

Analysis Batch: 151791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151302
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	7471B	151302
LCS 280-151302/2-A	Lab Control Sample	Total/NA	Solid	7471B	151302
MB 280-151302/1-A	Method Blank	Total/NA	Solid	7471B	151302

Prep Batch: 151897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
LCS 280-151897/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-151897/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 151968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	6020A	151258
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	6020A	151258
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	151258
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151258
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	6020A	151258
280-36640-37	EB-120512	Total/NA	Water	6020A	151250
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	6020A	151250
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	151250
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	6020A	151250
MB 280-151250/1-A	Method Blank	Total/NA	Water	6020A	151250

Prep Batch: 152296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	3050B	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	150896
LCS 280-152296/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-152296/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 152510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	151897
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	151897
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	151897
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151897
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151897
LCS 280-151897/2-A	Lab Control Sample	Total/NA	Solid	6020A	151897
MB 280-151897/1-A	Method Blank	Total/NA	Solid	6020A	151897

Metals (Continued)

Analysis Batch: 152719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	152296
280-36640-28 MS	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	152296
280-36640-28 MSD	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	6020A	152296
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152296
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152296
LCS 280-152296/2-A	Lab Control Sample	Total/NA	Solid	6020A	152296
MB 280-152296/1-A	Method Blank	Total/NA	Solid	6020A	152296

General Chemistry

Analysis Batch: 150785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36615-C-1 DU	Duplicate	Total/NA	Water	9040C	
280-36640-37	EB-120512	Total/NA	Water	9040C	
LCS 280-150785/30	Lab Control Sample	Total/NA	Water	9040C	
LCSD 280-150785/31	Lab Control Sample Dup	Total/NA	Water	9040C	

Leach Batch: 150896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	Increment, Prep	
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	DI Leach	
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	Increment, Prep	
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	DI Leach	
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	Increment, Prep	
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	DI Leach	
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-24 DU	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	DI Leach	
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-31 DU	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	Increment, Prep	
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	DI Leach	

General Chemistry (Continued)

Analysis Batch: 151424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	Moisture	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	Moisture	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	Moisture	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Moisture	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-31 DU	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	150896

Analysis Batch: 151785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-2	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-4	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36640-6	SL-519-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36640-7	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	Moisture	
280-36640-9	SL-519-SA6-SB-9.5	Total/NA	Solid	Moisture	
280-36640-10	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	Moisture	
280-36640-12	SL-519-SA6-SB-14.5	Total/NA	Solid	Moisture	
280-36640-13	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	Moisture	
280-36640-15	SL-519-SA6-SB-21.5	Total/NA	Solid	Moisture	
280-36640-16	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-18	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-20	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36640-22	SL-633-SA6-SB-3.0	Total/NA	Solid	Moisture	
280-36640-23	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-25	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-27	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	Moisture	
280-36640-29	SL-634-SA6-SB-2.5	Total/NA	Solid	Moisture	
280-36640-30	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-32	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36640-34	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	Moisture	
280-36640-36	SL-636-SA6-SB-3.0	Total/NA	Solid	Moisture	

Analysis Batch: 152317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-3	SL-519-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-5	SL-519-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	150896
280-36640-8	SL-519-SA6-SB-9.0-10.0	Total/NA	Solid	9045D	150896
280-36640-11	SL-519-SA6-SB-14.0-15.0	Total/NA	Solid	9045D	150896
280-36640-14	SL-519-SA6-SB-21.0-22.0	Total/NA	Solid	9045D	150896
280-36640-17	SL-550-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-19	SL-633-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-21	SL-633-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150896
280-36640-24	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896

General Chemistry (Continued)

Analysis Batch: 152317 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36640-24 DU	SL-520-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-26	SL-634-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-28	SL-634-SA6-SB-2.0-3.0	Total/NA	Solid	9045D	150896
280-36640-31	SL-635-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-33	SL-636-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	150896
280-36640-35	SL-636-SA6-SB-2.5-3.5	Total/NA	Solid	9045D	150896
LCS 280-152317/4	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-152317/5	Lab Control Sample Dup	Total/NA	Solid	9045D	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: TB-120512 — Lab Sample ID: 280-36640-1

Date Collected: 12/05/12 08:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 mL	5 mL	151153	12/07/12 20:11	TEM	TAL DEN

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-2

Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.2 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 10:26	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.2 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 01:55	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-3

Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 20:21	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:10	JKH	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 16:43	LT	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:37	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 15:58	DA	TAL DEN

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-4

Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.0 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 10:51	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			31.3 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-4

Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			152217	12/13/12 02:19	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-5

Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 20:42	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.07 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:21	JKH	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:04	LT	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:44	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 15:59	DA	TAL DEN

Client Sample ID: SL-519-SA6-SB-4.5 — Lab Sample ID: 280-36640-6

Date Collected: 12/05/12 09:44 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.894 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 19:18	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-7

Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 11:16	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			31.2 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 02:43	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-8

Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.7 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 21:03	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:24	JKH	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:08	LT	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:46	JM	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:00	DA	TAL DEN

Client Sample ID: SL-519-SA6-SB-9.5 — Lab Sample ID: 280-36640-9

Date Collected: 12/05/12 09:54 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.090 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 19:48	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-10

Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.1 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 11:41	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.2 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 03:07	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-11

Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.9 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-11

Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1			152281	12/14/12 21:25	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:26	JKH	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:25	LT	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:49	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:16	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:01	DA	TAL DEN

Client Sample ID: SL-519-SA6-SB-14.5 — Lab Sample ID: 280-36640-12

Date Collected: 12/05/12 09:59 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.234 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 20:17	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-13

Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.8 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 12:56	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.7 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 03:32	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-14

Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 21:46	TDJ	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-519-SA6-SB-21.0-22.0

Lab Sample ID: 280-36640-14

Date Collected: 12/05/12 10:05
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:38	JKH	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:29	LT	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:51	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:32	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:02	DA	TAL DEN

Client Sample ID: SL-519-SA6-SB-21.5

Lab Sample ID: 280-36640-15

Date Collected: 12/05/12 10:04
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.220 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 20:47	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: SL-550-SA6-SB-0.0-0.5

Lab Sample ID: 280-36640-16

Date Collected: 12/05/12 09:50
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 13:21	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.8 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 03:56	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-550-SA6-SB-0.0-0.5

Lab Sample ID: 280-36640-17

Date Collected: 12/05/12 09:50
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 22:07	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-17

Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:40	JKH	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:33	LT	TAL DEN
Total/NA	Prep	7471B			0.60 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 18:58	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:44	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/06/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:03	DA	TAL DEN

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-18

Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.5 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 13:46	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 04:20	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-19

Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 93.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 22:29	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:42	JKH	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:37	LT	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:00	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:48	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-19

Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:13	DA	TAL DEN

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-20

Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.6 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 14:11	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			31.0 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 04:44	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-21

Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.1 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 22:50	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:44	JKH	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:41	LT	TAL DEN
Total/NA	Prep	7471B			0.50 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:03	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:53	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:04	DA	TAL DEN

Client Sample ID: SL-633-SA6-SB-3.0 — Lab Sample ID: 280-36640-22

Date Collected: 12/05/12 10:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.986 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 21:17	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-23

Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 14:36	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.8 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 05:57	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-24

Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 23:12	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.18 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:47	JKH	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:45	LT	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:05	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 12:58	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:06	DA	TAL DEN

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-25

Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.0 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 15:02	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.3 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 06:21	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-634-SA6-SB-0.0-0.5

Lab Sample ID: 280-36640-26

Date Collected: 12/05/12 13:45
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	8151A			51.5 g	10000 uL	151465	12/10/12 20:00	BJ	TAL DEN
Total/NA	Analysis	8151A		5			152245	12/14/12 20:13	KJH	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8081B		1			152260	12/15/12 06:56	DW	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 23:33	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep	DL			1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546	DL		30.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8081B	DL	10			152542	12/17/12 20:14	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:49	JKH	TAL DEN
Total/NA	Prep	3050B			1.00 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:49	LT	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:07	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 13:03	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:08	DA	TAL DEN

Client Sample ID: SL-634-SA6-SB-2.0-3.0

Lab Sample ID: 280-36640-27

Date Collected: 12/05/12 14:00
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.3 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 15:27	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			31.1 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 06:45	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-634-SA6-SB-2.0-3.0

Lab Sample ID: 280-36640-28

Date Collected: 12/05/12 14:00
Date Received: 12/06/12 09:00

Matrix: Solid
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	8151A			51.3 g	10000 uL	151465	12/10/12 20:00	BJ	TAL DEN
Total/NA	Analysis	8151A		5			152245	12/14/12 20:36	KJH	TAL DEN
Total/NA	Prep	3546			31.7 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36640-28

Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1			152281	12/14/12 23:54	TDJ	TAL DEN
Total/NA	Analysis	8081B		1			152542	12/17/12 19:39	DW	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:51	JKH	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:10	JM	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	151897	12/13/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 14:12	TEL	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	152296	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 21:19	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:09	DA	TAL DEN

Client Sample ID: SL-634-SA6-SB-2.5 — Lab Sample ID: 280-36640-29

Date Collected: 12/05/12 14:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.531 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 21:47	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-30

Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.6 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 15:51	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.9 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 07:09	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-31

Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-31

Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.1 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/15/12 01:41	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:54	JKH	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:12	JM	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	151897	12/13/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 14:26	TEL	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	152296	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 21:34	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:10	DA	TAL DEN

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-32

Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.4 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 16:17	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.5 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 07:34	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-33

Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/15/12 02:03	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:56	JKH	TAL DEN
Total/NA	Prep	7471B			0.52 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:14	JM	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	151897	12/13/12 13:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 14:29	TEL	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-636-SA6-SB-0.0-0.5

Lab Sample ID: 280-36640-33

Date Collected: 12/05/12 12:40
Matrix: Solid
Date Received: 12/06/12 09:00
Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	152296	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 21:36	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:11	DA	TAL DEN

Client Sample ID: SL-636-SA6-SB-2.5-3.5

Lab Sample ID: 280-36640-34

Date Collected: 12/05/12 13:15
Matrix: Solid
Date Received: 12/06/12 09:00
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.8 g	1000 uL	151447	12/10/12 17:15	BJ	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 16:42	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Prep	3550C			30.7 g	1000 uL	151516	12/11/12 11:10	LC	TAL DEN
Total/NA	Analysis	8015B		1			152217	12/13/12 07:58	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:05	DFB	TAL DEN

Client Sample ID: SL-636-SA6-SB-2.5-3.5

Lab Sample ID: 280-36640-35

Date Collected: 12/05/12 13:15
Matrix: Solid
Date Received: 12/06/12 09:00
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3546			31.6 g	10000 uL	151296	12/10/12 13:25	KS	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/15/12 02:24	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151259	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151721	12/11/12 19:58	JKH	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	151258	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 17:54	LT	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	151302	12/11/12 12:50	JM	TAL DEN
Total/NA	Analysis	7471B		1			151791	12/11/12 19:16	JM	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 14:05	LT	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	Moisture		1			151424	12/10/12 15:53	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	150896	12/07/12 20:02	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152317	12/15/12 16:12	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-1

Client Sample ID: SL-636-SA6-SB-3.0

Lab Sample ID: 280-36640-36

Date Collected: 12/05/12 13:20
Matrix: Solid
Date Received: 12/06/12 09:00
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.997 g	5 mL	150911	12/06/12 21:35	RLB	TAL DEN
Total/NA	Analysis	8015B		1			151628	12/11/12 22:16	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			151785	12/12/12 10:07	DFB	TAL DEN

Client Sample ID: EB-120512

Lab Sample ID: 280-36640-37

Date Collected: 12/05/12 14:00
Matrix: Water
Date Received: 12/06/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			962.7 mL	1000 uL	150872	12/06/12 17:00	SPF	TAL DEN
Total/NA	Analysis	8270C SIM		1			151477	12/11/12 05:51	KGV	TAL DEN
Total/NA	Analysis	None		1			152612	12/17/12 16:09	JB	TAL DEN
Total/NA	Analysis	8015B		1	5 mL	5 mL	151153	12/07/12 20:41	TEM	TAL DEN
Total/NA	Prep	8151A			932.9 mL	10000 uL	150843	12/06/12 14:43	AA	TAL DEN
Total/NA	Analysis	8151A		1			151352	12/11/12 04:39	KJH	TAL DEN
Total/NA	Prep	3510C			930.9 mL	10000 uL	151138	12/07/12 16:22	SPF	TAL DEN
Total/NA	Analysis	8081B		1			151548	12/11/12 22:32	DW	TAL DEN
Total/NA	Analysis	8082A		1			152281	12/14/12 18:12	TDJ	TAL DEN
Total/NA	Prep	3510C			902.2 mL	1000 uL	151564	12/11/12 10:47	AA	TAL DEN
Total/NA	Analysis	8015B		1			152487	12/12/12 23:54	MRB	TAL DEN
Total/NA	Prep	7470A			30 mL	30 mL	151068	12/10/12 12:50	JM	TAL DEN
Total/NA	Analysis	7470A		1			151560	12/10/12 20:26	JM	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	151251	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151722	12/11/12 21:37	JKH	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	151250	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 20:48	LT	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 16:02	LT	TAL DEN
Total/NA	Analysis	9040C		1			150785	12/06/12 14:20	AK	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

5.1°C
R
12G 4
PA

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120512	12/5/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-519-SA6-SB-0.0-0.5	12/5/12 09:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-0.0-0.5	12/5/12 09:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-4.0-5.0	12/5/12 09:45	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-4.0-5.0	12/5/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-4.5	12/5/12 09:44	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-9.0-10.0	12/5/12 09:55	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-9.0-10.0	12/5/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-9.5	12/5/12 09:54	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-14.0-15.0	12/5/12 10:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-14.0-15.0	12/5/12 10:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-14.5	12/5/12 09:59	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-21.0-22.0	12/5/12 10:05	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-21.0-22.0	12/5/12 10:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-21.5	12/5/12 10:04	SO	None	3 - Encore	10 day																				X												
SL-550-SA6-SB-0.0-0.5	12/5/12 09:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-550-SA6-SB-0.0-0.5	12/5/12 09:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-0.0-0.5	12/5/12 10:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-633-SA6-SB-0.0-0.5	12/5/12 10:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-2.5-3.5	12/5/12 10:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-633-SA6-SB-2.5-3.5	12/5/12 10:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-3.0	12/5/12 10:55	SO	None	3 - Encore	10 day																				X												
SL-520-SA6-SB-0.0-0.5	12/5/12 12:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-520-SA6-SB-0.0-0.5	12/5/12 12:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-0.0-0.5	12/5/12 13:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-634-SA6-SB-0.0-0.5	12/5/12 13:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-2.0-3.0	12/5/12 14:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-634-SA6-SB-2.0-3.0	12/5/12 14:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-2.5	12/5/12 14:05	SO	None	3 - Encore	10 day																				X												
SL-635-SA6-SB-0.0-0.5	12/5/12 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-635-SA6-SB-0.0-0.5	12/5/12 14:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-0.0-0.5	12/5/12 12:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-636-SA6-SB-0.0-0.5	12/5/12 12:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-2.5-3.5	12/5/12 13:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-636-SA6-SB-2.5-3.5	12/5/12 13:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-3.0	12/5/12 13:20	SO	None	3 - Encore	10 day																				X												

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/05/2012	1600	[illegible]	12/6/12	0930						

2 of 2

3.3°C

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-02
Cooler #: 4,5,6
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-120512	12/5/12 14:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB-120512	12/5/12 14:00	WQ	None	10 - 1 L Amber	10 day							X			X						X	X			X												
EB-120512	12/5/12 14:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB-120512	12/5/12 14:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: [signature]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/05/2012	1600	[signature]	12/6/12	0930						

COC Rev 2

COC: 20121205-02, Page 1 of 1 1 of 1

Eichelberger, Elizabeth

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 06, 2012 1:21 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36640, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty-one soil samples, equipment blank and trip blank received at the laboratory on 12/6/12.

The samples were received in acceptable condition at temperatures of 3.3ºC, 4.8ºC, 5.1ºC, 5.4ºC, 4.6ºC, 3.3ºC (Denver) and 0.6ºC.

Receipt Discrepancies: None

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.
2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.
3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample. For example, moisture data for sample SL-573-SA5B-SB-4.5 should be uploaded from sample SL-573-SA5B-SB-4.0-5.0.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36640-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [088915]
Attachments: 6

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36640-1

Login Number: 36640
List Number: 1
Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eichelberger, Elizabeth

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 06, 2012 1:21 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36640, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty-one soil samples, equipment blank and trip blank received at the laboratory on 12/6/12.

The samples were received in acceptable condition at temperatures of 3.3ºC, 4.8ºC, 5.1ºC, 5.4ºC, 4.6ºC, 3.3ºC (Denver) and 0.6ºC.

Receipt Discrepancies: None

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.
2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.
3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample. For example, moisture data for sample SL-573-SA5B-SB-4.5 should be uploaded from sample SL-573-SA5B-SB-4.0-5.0.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36640-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [088915]
Attachments: 6

SAMPLE DELIVERY GROUP

280-36640-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36640-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/28/2012 12:06:35 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 9
Sample Summary 10
Chronicle 11
Subcontract Data 14
Chain of Custody 68
Receipt Checklists 71

Job ID: 280-36640-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36640-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Fourteen soil samples and one Equipment Blank were received under Chain of Custody on December 6, 2012. The samples were received in good condition at condition at temperatures of 3.3°C, 4.8°C, 5.1°C, 5.4°C, 4.6°C, 3.3°C (Denver) and 0.6°C (Knoxville).

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36640-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
S	Ion suppression.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.28	Q J	5.3	0.30	0.1	0.028	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.9	Q J	5.3	0.31	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.82	C J	5.3	0.28	0.1	0.082	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	180		5.3	0.52	0.01	1.8	ng/kg	1	☼	1613B	Total
OCDD	2600	B	11	0.39	0.001	2.6	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.5	Q J	5.3	0.17	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.23	Q J	5.3	0.16	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	19		5.3	0.28	0.01	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.8	Q J	5.3	0.33	0.01	0.018	ng/kg	1	☼	1613B	Total
OCDF	54		11	0.27	0.001	0.054	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	2.7	J	5.2	0.25	0.01	0.027	ng/kg	1	☼	1613B	Total
OCDD	36	B	10	0.31	0.001	0.036	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.41	Q J	5.2	0.16	0.01	0.0041	ng/kg	1	☼	1613B	Total
OCDF	0.88	J	10	0.23	0.001	0.00088	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	4.6	B J	11	0.23	0.001	0.0046	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.32	Q J	5.5	0.20	0.01	0.0032	ng/kg	1	☼	1613B	Total
OCDD	3.1	B J	11	0.21	0.001	0.0031	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-14

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	3.5	B J	11	0.20	0.001	0.0035	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-17

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	4.9	J	5.5	0.16	0.01	0.049	ng/kg	1	☼	1613B	Total
OCDD	70	B	11	0.19	0.001	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.85	Q J	5.5	0.12	0.01	0.0085	ng/kg	1	☼	1613B	Total
OCDF	3.4	J	11	0.15	0.001	0.0034	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.17	Q J	5.2	0.13	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.32	Q J	5.2	0.11	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.3	J	5.2	0.11	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.84	C J	5.2	0.10	0.1	0.084	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	30		5.2	0.19	0.01	0.30	ng/kg	1	☼	1613B	Total
OCDD	240	B S	10	0.20	0.001	0.24	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-633-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.39	J	1.0	0.20	0.1	0.039	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.13	Q J	5.2	0.11	0.05	0.0065	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.28	J	5.2	0.095	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.71	C J	5.2	0.063	0.1	0.071	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.54	J	5.2	0.060	0.1	0.054	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	Q J	5.2	0.066	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.7		5.2	0.12	0.01	0.057	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.75	J	5.2	0.15	0.01	0.0075	ng/kg	1	☼	1613B	Total
OCDF	8.5	J	10	0.15	0.001	0.0085	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-21

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.59	Q J	5.1	0.093	0.1	0.059	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.1	J	5.1	0.099	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.2	C J	5.1	0.089	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	48		5.1	0.19	0.01	0.48	ng/kg	1	☼	1613B	Total
OCDD	430	B S	10	0.18	0.001	0.43	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.44	Q J	1.0	0.18	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.17	J	5.1	0.089	0.05	0.0085	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.28	J	5.1	0.076	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.92	C J	5.1	0.057	0.1	0.092	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.48	Q J	5.1	0.056	0.1	0.048	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.27	J	5.1	0.061	0.1	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	8.0		5.1	0.11	0.01	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.98	Q J	5.1	0.14	0.01	0.0098	ng/kg	1	☼	1613B	Total
OCDF	13		10	0.13	0.001	0.013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-24

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.25	Q J	5.4	0.18	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.36	J	5.4	0.16	0.1	0.036	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.4	Q J	5.4	0.19	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.91	Q J	5.4	0.16	0.1	0.091	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	46		5.4	0.42	0.01	0.46	ng/kg	1	☼	1613B	Total
OCDD	390	B	11	0.39	0.001	0.39	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.27	Q J	5.4	0.13	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.84	Q J	5.4	0.10	0.1	0.084	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.51	Q J	5.4	0.10	0.1	0.051	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.16	Q J	5.4	0.11	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	7.1		5.4	0.23	0.01	0.071	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.3	J	5.4	0.31	0.01	0.013	ng/kg	1	☼	1613B	Total
OCDF	11		11	0.38	0.001	0.011	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-26

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.33	Q J	5.5	0.11	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.80	J	5.5	0.12	0.1	0.080	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.9	J	5.5	0.13	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.6	C J	5.5	0.11	0.1	0.16	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-634-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-26

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	65		5.5	0.23	0.01	0.65	ng/kg	1	☼	1613B	Total
OCDD	580	B S	11	0.30	0.001	0.58	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.60	Q J	1.1	0.17	0.1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.12	Q J	5.5	0.089	0.05	0.0060	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.37	Q J	5.5	0.081	0.5	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.4	C J	5.5	0.070	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.93	Q J	5.5	0.065	0.1	0.093	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.37	J	5.5	0.075	0.1	0.037	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	11		5.5	0.097	0.01	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.5	J	5.5	0.13	0.01	0.015	ng/kg	1	☼	1613B	Total
OCDF	17		11	0.21	0.001	0.017	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36640-28

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.31	Q J	5.2	0.12	0.5	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.49	J	5.2	0.099	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.1	J	5.2	0.11	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	Q J	5.2	0.096	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	59		5.2	0.14	0.01	0.59	ng/kg	1	☼	1613B	Total
OCDD	710	S B	10	0.16	0.001	0.71	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.43	J	1.0	0.18	0.1	0.043	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.16	Q J	5.2	0.095	0.05	0.0080	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.33	J	5.2	0.088	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.95	C J	5.2	0.059	0.1	0.095	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.71	Q J	5.2	0.061	0.1	0.071	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.30	J	5.2	0.058	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	11		5.2	0.079	0.01	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.83	Q J	5.2	0.12	0.01	0.0083	ng/kg	1	☼	1613B	Total
OCDF	36		10	0.19	0.001	0.036	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-31

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.68	Q J	5.9	0.30	0.5	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.1	J	5.9	0.28	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.1	J	5.9	0.29	0.1	0.41	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.5	Q J	5.9	0.27	0.1	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	99		5.9	0.46	0.01	0.99	ng/kg	1	☼	1613B	Total
OCDD	930	S B	12	0.58	0.001	0.93	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.54	J	1.2	0.28	0.1	0.054	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.27	Q J	5.9	0.17	0.05	0.014	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.49	J	5.9	0.18	0.5	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.8	J C	5.9	0.14	0.1	0.18	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.3	Q J	5.9	0.12	0.1	0.13	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.53	J	5.9	0.14	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	20		5.9	0.22	0.01	0.20	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.6	J	5.9	0.33	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDF	69	Q	12	0.67	0.001	0.069	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-33

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-636-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36640-33

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.61	Q J	6.0	0.37	0.5	0.31	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.86	J	6.0	0.33	0.1	0.086	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.2	Q J	6.0	0.34	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.77	J	6.0	0.31	0.1	0.077	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	46		6.0	0.46	0.01	0.46	ng/kg	1	☼	1613B	Total
OCDD	430	S B	12	0.90	0.001	0.43	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.81	J	6.0	0.18	0.1	0.081	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.87	Q J	6.0	0.18	0.1	0.087	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.38	Q J	6.0	0.19	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	8.9		6.0	0.39	0.01	0.089	ng/kg	1	☼	1613B	Total
OCDF	38		12	0.67	0.001	0.038	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-35

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	2.3	Q J	5.2	0.29	0.01	0.023	ng/kg	1	☼	1613B	Total
OCDD	31	S B	10	0.93	0.001	0.031	ng/kg	1	☼	1613B	Total
OCDF	1.8	Q J	10	0.72	0.001	0.0018	ng/kg	1	☼	1613B	Total

Client Sample ID: EB-120512 — Lab Sample ID: 280-36640-37

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.99	Q B J	47	0.35	0.01	0.0099	pg/L	1		1613B	Total
OCDD	3.3	Q B J	95	0.46	0.001	0.0033	pg/L	1		1613B	Total
1,2,3,7,8,9-HxCDF	0.33	Q B J	47	0.25	0.1	0.033	pg/L	1		1613B	Total
1,2,3,4,6,7,8-HpCDF	0.33	Q B J	47	0.27	0.01	0.0033	pg/L	1		1613B	Total
OCDF	1.6	B J	95	0.41	0.001	0.0016	pg/L	1		1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36640-3	SL-519-SA6-SB-0.0-0.5	Solid	12/05/12 09:00	12/06/12 09:00
280-36640-5	SL-519-SA6-SB-4.0-5.0	Solid	12/05/12 09:45	12/06/12 09:00
280-36640-8	SL-519-SA6-SB-9.0-10.0	Solid	12/05/12 09:55	12/06/12 09:00
280-36640-11	SL-519-SA6-SB-14.0-15.0	Solid	12/05/12 10:00	12/06/12 09:00
280-36640-14	SL-519-SA6-SB-21.0-22.0	Solid	12/05/12 10:05	12/06/12 09:00
280-36640-17	SL-550-SA6-SB-0.0-0.5	Solid	12/05/12 09:50	12/06/12 09:00
280-36640-19	SL-633-SA6-SB-0.0-0.5	Solid	12/05/12 10:30	12/06/12 09:00
280-36640-21	SL-633-SA6-SB-2.5-3.5	Solid	12/05/12 10:50	12/06/12 09:00
280-36640-24	SL-520-SA6-SB-0.0-0.5	Solid	12/05/12 12:45	12/06/12 09:00
280-36640-26	SL-634-SA6-SB-0.0-0.5	Solid	12/05/12 13:45	12/06/12 09:00
280-36640-28	SL-634-SA6-SB-2.0-3.0	Solid	12/05/12 14:00	12/06/12 09:00
280-36640-31	SL-635-SA6-SB-0.0-0.5	Solid	12/05/12 14:20	12/06/12 09:00
280-36640-33	SL-636-SA6-SB-0.0-0.5	Solid	12/05/12 12:40	12/06/12 09:00
280-36640-35	SL-636-SA6-SB-2.5-3.5	Solid	12/05/12 13:15	12/06/12 09:00
280-36640-37	EB-120512	Water	12/05/12 14:00	12/06/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-519-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-3

Date Collected: 12/05/12 09:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 02:58	PMP	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2346020	12/11/12 09:28	TN	TAL KNX

Client Sample ID: SL-519-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36640-5

Date Collected: 12/05/12 09:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 03:58	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:29	TN	TAL KNX

Client Sample ID: SL-519-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36640-8

Date Collected: 12/05/12 09:55 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 92.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 04:58	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:29	TN	TAL KNX

Client Sample ID: SL-519-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36640-11

Date Collected: 12/05/12 10:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 05:57	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:30	TN	TAL KNX

Client Sample ID: SL-519-SA6-SB-21.0-22.0 — Lab Sample ID: 280-36640-14

Date Collected: 12/05/12 10:05 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 06:57	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:30	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-550-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-17

Date Collected: 12/05/12 09:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 07:57	PMP	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:30	TN	TAL KNX

Client Sample ID: SL-633-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-19

Date Collected: 12/05/12 10:30 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 94.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 16:52	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:30	TN	TAL KNX

Client Sample ID: SL-633-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-21

Date Collected: 12/05/12 10:50 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 17:51	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:31	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-24

Date Collected: 12/05/12 12:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 18:51	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:31	TN	TAL KNX

Client Sample ID: SL-634-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-26

Date Collected: 12/05/12 13:45 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/21/12 19:51	DCG	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:31	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36640-2

Client Sample ID: SL-634-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36640-28

Date Collected: 12/05/12 14:00 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 96.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/26/12 16:53	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:31	TN	TAL KNX

Client Sample ID: SL-635-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-31

Date Collected: 12/05/12 14:20 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 82**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/26/12 17:53	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:32	TN	TAL KNX

Client Sample ID: SL-636-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36640-33

Date Collected: 12/05/12 12:40 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 83**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/26/12 18:52	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:32	TN	TAL KNX

Client Sample ID: SL-636-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36640-35

Date Collected: 12/05/12 13:15 — **Matrix: Solid**
Date Received: 12/06/12 09:00 — **Percent Solids: 95.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2345027_P	12/10/12 17:00		TAL KNX
Total	Analysis	1613B		1			2345027	12/26/12 19:52	JMN	TAL KNX
Total	Analysis	160.3 MOD		1			2346020	12/11/12 09:32	TN	TAL KNX

Client Sample ID: EB-120512 — Lab Sample ID: 280-36640-37

Date Collected: 12/05/12 14:00 — **Matrix: Water**
Date Received: 12/06/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			1055 mL	20 uL	2354018_P	12/18/12 16:00		TAL KNX
Total	Analysis	1613B		1			2354018	12/26/12 13:42	MAD	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L080401 Analytical Report 1

Sample Receipt Documentation 48

Total Number of Pages 53

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36640-2

CDM - SSFL Area IV

Lot #: H2L080401

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

December 27, 2012

ANALYTICAL METHODS SUMMARY

H2L080401

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L080401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXJD9	001	SL-519-SA6-SB-0.0-0.5	12/05/12	09:00
MXJEA	002	SL-519-SA6-SB-4.0-5.0	12/05/12	09:45
MXJEC	003	SL-519-SA6-SB-9.0-10.0	12/05/12	09:55
MXJED	004	SL-519-SA6-SB-14.0-15.0	12/05/12	10:00
MXJEE	005	SL-519-SA6-SB-21.0-22.0	12/05/12	10:05
MXJEF	006	SL-550-SA6-SB-0.0-0.5	12/05/12	09:05
MXJEG	007	SL-633-SA6-SB-0.0-0.5	12/05/12	10:30
MXJEH	008	SL-633-SA6-SB-2.5-3.5	12/05/12	10:50
MXJEJ	009	SL-520-SA6-SB-0.0-0.5	12/05/12	12:45
MXJEK	010	SL-634-SA6-SB-0.0-0.5	12/05/12	13:45
MXJEL	011	SL-634-SA6-SB-2.0-3.0	12/05/12	14:00
MXJEM	012	SL-635-SA6-SB-0.0-0.5	12/05/12	14:20
MXJEN	013	SL-636-SA6-SB-0.0-0.5	12/05/12	12:40
MXJEP	014	SL-636-SA6-SB-2.5-3.5	12/05/12	13:15
MXJEQ	015	EB-120512	12/05/12	14:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L080401

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the

PROJECT NARRATIVE
H2L080401

concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the

PROJECT NARRATIVE
H2L080401

EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

PROJECT NARRATIVE
H2L080401

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 001	**Work Order #....:**	MXJD91AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	8.2
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.48	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.3	0.27	1.0	0
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.28 Q J**	**5.3**	**0.30**	**0.1**	**0.028**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**2.9 Q J**	**5.3**	**0.31**	**0.1**	**0.29**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.82 C J**	**5.3**	**0.28**	**0.1**	**0.082**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**180**	**5.3**	**0.52**	**0.01**	**1.8**
OCDD	**12/21/12**	**1**	**2600 B**	**11**	**0.39**	**0.0003**	**0.78**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.32	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.3	0.22	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.3	0.20	0.3	0
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**1.5 Q J**	**5.3**	**0.17**	**0.1**	**0.15**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.23 Q J**	**5.3**	**0.16**	**0.1**	**0.023**
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.3	0.18	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.3	0.22	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**19**	**5.3**	**0.28**	**0.01**	**0.19**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.8 Q J**	**5.3**	**0.33**	**0.01**	**0.018**
OCDF	**12/21/12**	**1**	**54**	**11**	**0.27**	**0.0003**	**0.016**
Total TEQ Concentration							**3.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	60	(25 - 164)
13C-1,2,3,7,8-PeCDD	63	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	62	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	53	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	53	(23 - 140)
13C-OCDD	45	(17 - 157)
13C-2,3,7,8-TCDF	54	(24 - 169)
13C-1,2,3,7,8-PeCDF	56	(24 - 185)
13C-2,3,4,7,8-PeCDF	58	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	54	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	50	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	54	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	58	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	50	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	53	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 002	**Work Order #....:**	MXJEA1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	8.5
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.33	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.2	0.18	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.2	0.16	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.2	0.17	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.2	0.15	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**2.7 J**	**5.2**	**0.25**	**0.01**	**0.027**
OCDD	**12/21/12**	**1**	**36 B**	**10**	**0.31**	**0.0003**	**0.011**
2,3,7,8-TCDF	12/21/12	1	ND	1.0	0.20	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.2	0.13	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.2	0.11	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.2	0.10	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.098	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.2	0.10	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.2	0.13	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.41 Q J**	**5.2**	**0.16**	**0.01**	**0.0041**
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.2	0.22	0.01	0
OCDF	**12/21/12**	**1**	**0.88 J**	**10**	**0.23**	**0.0003**	**0.00026**
Total TEQ Concentration							**0.042**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	(25 - 164)
13C-1,2,3,7,8-PeCDD	74	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	64	(17 - 157)
13C-2,3,7,8-TCDF	64	(24 - 169)
13C-1,2,3,7,8-PeCDF	67	(24 - 185)
13C-2,3,4,7,8-PeCDF	69	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 003	**Work Order #....:**	MXJEC1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	7.5
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.41	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.4	0.17	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.4	0.13	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.4	0.15	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.4	0.13	0.1	0
1,2,3,4,6,7,8-HpCDD	12/21/12	1	ND	5.4	0.22	0.01	0
OCDD	**12/21/12**	**1**	**4.6 B J**	**11**	**0.23**	**0.0003**	**0.0014**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.21	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.4	0.12	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.4	0.11	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.4	0.088	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.4	0.080	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.4	0.091	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.4	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	12/21/12	1	ND	5.4	0.13	0.01	0
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.4	0.17	0.01	0
OCDF	12/21/12	1	ND	11	0.18	0.0003	0
Total TEQ Concentration							**0.0014**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	89	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	82	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	77	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	81	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-14.0-15.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 004	**Work Order #....:**	MXJED1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	10
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.37	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.5	0.14	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.5	0.13	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.5	0.14	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.5	0.12	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**0.32 Q J**	**5.5**	**0.20**	**0.01**	**0.0032**
OCDD	**12/21/12**	**1**	**3.1 B J**	**11**	**0.21**	**0.0003**	**0.00093**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.22	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.5	0.098	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.5	0.089	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.5	0.072	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.5	0.071	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.5	0.072	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.5	0.091	0.1	0
1,2,3,4,6,7,8-HpCDF	12/21/12	1	ND	5.5	0.12	0.01	0
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.5	0.16	0.01	0
OCDF	12/21/12	1	ND	11	0.18	0.0003	0
Total TEQ Concentration							**0.0041**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	70	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-14.0-15.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	99	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-21.0-22.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 005	**Work Order #....:**	MXJEE1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	10
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.38	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.4	0.14	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.4	0.11	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.4	0.12	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.4	0.11	0.1	0
1,2,3,4,6,7,8-HpCDD	12/21/12	1	ND	5.4	0.18	0.01	0
OCDD	**12/21/12**	**1**	**3.5 B J**	**11**	**0.20**	**0.0003**	**0.0010**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.20	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.4	0.11	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.4	0.097	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.4	0.074	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.4	0.070	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.4	0.084	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.4	0.096	0.1	0
1,2,3,4,6,7,8-HpCDF	12/21/12	1	ND	5.4	0.11	0.01	0
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.4	0.15	0.01	0
OCDF	12/21/12	1	ND	11	0.16	0.0003	0
Total TEQ Concentration							**0.0010**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	72	(23 - 140)
13C-OCDD	62	(17 - 157)
13C-2,3,7,8-TCDF	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	70	(24 - 185)
13C-2,3,4,7,8-PeCDF	72	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-519-SA6-SB-21.0-22.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated Result.

TestAmerica Denver

Client Sample ID: SL-550-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 006	**Work Order #....:**	MXJEF1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	11
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.37	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.5	0.14	1.0	0
1,2,3,4,7,8-HxCDD	12/21/12	1	ND	5.5	0.17	0.1	0
1,2,3,6,7,8-HxCDD	12/21/12	1	ND	5.5	0.18	0.1	0
1,2,3,7,8,9-HxCDD	12/21/12	1	ND	5.5	0.16	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**4.9 J**	**5.5**	**0.16**	**0.01**	**0.049**
OCDD	**12/21/12**	**1**	**70 B**	**11**	**0.19**	**0.0003**	**0.021**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.23	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.5	0.13	0.03	0
2,3,4,7,8-PeCDF	12/21/12	1	ND	5.5	0.12	0.3	0
1,2,3,4,7,8-HxCDF	12/21/12	1	ND	5.5	0.084	0.1	0
1,2,3,6,7,8-HxCDF	12/21/12	1	ND	5.5	0.082	0.1	0
2,3,4,6,7,8-HxCDF	12/21/12	1	ND	5.5	0.088	0.1	0
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.5	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**0.85 Q J**	**5.5**	**0.12**	**0.01**	**0.0085**
1,2,3,4,7,8,9-HpCDF	12/21/12	1	ND	5.5	0.17	0.01	0
OCDF	**12/21/12**	**1**	**3.4 J**	**11**	**0.15**	**0.0003**	**0.0010**
Total TEQ Concentration							**0.080**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	83	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	79	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-550-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-633-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 007	**Work Order #....:**	MXJEG1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	5.4
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.29	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.17 Q J**	**5.2**	**0.13**	**1.0**	**0.17**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.32 Q J**	**5.2**	**0.11**	**0.1**	**0.032**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**1.3 J**	**5.2**	**0.11**	**0.1**	**0.13**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.84 C J**	**5.2**	**0.10**	**0.1**	**0.084**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**30**	**5.2**	**0.19**	**0.01**	**0.30**
OCDD	**12/21/12**	**1**	**240 B S**	**10**	**0.20**	**0.0003**	**0.072**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.39 J**	**1.0**	**0.20**	**0.1**	**0.039**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.13 Q J**	**5.2**	**0.11**	**0.03**	**0.0039**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.28 J**	**5.2**	**0.095**	**0.3**	**0.084**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.71 C J**	**5.2**	**0.063**	**0.1**	**0.071**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.54 J**	**5.2**	**0.060**	**0.1**	**0.054**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.23 Q J**	**5.2**	**0.066**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.2	0.081	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**5.7**	**5.2**	**0.12**	**0.01**	**0.057**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**0.75 J**	**5.2**	**0.15**	**0.01**	**0.0075**
OCDF	**12/21/12**	**1**	**8.5 J**	**10**	**0.15**	**0.0003**	**0.0026**
Total TEQ Concentration							**1.1**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	57	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	82	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-633-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-633-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 008	**Work Order #....:**	MXJEH1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	3.4
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.0	0.28	1.0	0
1,2,3,7,8-PeCDD	12/21/12	1	ND	5.1	0.11	1.0	0
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.59 Q J**	**5.1**	**0.093**	**0.1**	**0.059**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**2.1 J**	**5.1**	**0.099**	**0.1**	**0.21**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**1.2 C J**	**5.1**	**0.089**	**0.1**	**0.12**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**48**	**5.1**	**0.19**	**0.01**	**0.48**
OCDD	**12/21/12**	**1**	**430 B S**	**10**	**0.18**	**0.0003**	**0.13**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.44 Q J**	**1.0**	**0.18**	**0.1**	**0.044**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.17 J**	**5.1**	**0.089**	**0.03**	**0.0051**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.28 J**	**5.1**	**0.076**	**0.3**	**0.084**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.92 C J**	**5.1**	**0.057**	**0.1**	**0.092**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.48 Q J**	**5.1**	**0.056**	**0.1**	**0.048**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.27 J**	**5.1**	**0.061**	**0.1**	**0.027**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.1	0.074	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**8.0**	**5.1**	**0.11**	**0.01**	**0.080**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**0.98 Q J**	**5.1**	**0.14**	**0.01**	**0.0098**
OCDF	**12/21/12**	**1**	**13**	**10**	**0.13**	**0.0003**	**0.0039**
Total TEQ Concentration							**1.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	91	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	55	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	100	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-633-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 009	**Work Order #....:**	MXJEJ1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	8.4
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.32	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.25 Q J**	**5.4**	**0.18**	**1.0**	**0.25**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.36 J**	**5.4**	**0.16**	**0.1**	**0.036**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**1.4 Q J**	**5.4**	**0.19**	**0.1**	**0.14**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**0.91 Q J**	**5.4**	**0.16**	**0.1**	**0.091**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**46**	**5.4**	**0.42**	**0.01**	**0.46**
OCDD	**12/21/12**	**1**	**390 B**	**11**	**0.39**	**0.0003**	**0.12**
2,3,7,8-TCDF	12/21/12	1	ND	1.1	0.21	0.1	0
1,2,3,7,8-PeCDF	12/21/12	1	ND	5.4	0.14	0.03	0
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.27 Q J**	**5.4**	**0.13**	**0.3**	**0.081**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**0.84 Q J**	**5.4**	**0.10**	**0.1**	**0.084**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.51 Q J**	**5.4**	**0.10**	**0.1**	**0.051**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.16 Q J**	**5.4**	**0.11**	**0.1**	**0.016**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.4	0.14	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**7.1**	**5.4**	**0.23**	**0.01**	**0.071**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.3 J**	**5.4**	**0.31**	**0.01**	**0.013**
OCDF	**12/21/12**	**1**	**11**	**11**	**0.38**	**0.0003**	**0.0033**
Total TEQ Concentration							**1.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	(25 - 164)
13C-1,2,3,7,8-PeCDD	69	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	72	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	68	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	52	(23 - 140)
13C-OCDD	32	(17 - 157)
13C-2,3,7,8-TCDF	62	(24 - 169)
13C-1,2,3,7,8-PeCDF	63	(24 - 185)
13C-2,3,4,7,8-PeCDF	64	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	69	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	67	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	70	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	51	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	47	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-634-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 010	**Work Order #....:**	MXJEK1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	9.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/21/12	1	ND	1.1	0.22	1.0	0
1,2,3,7,8-PeCDD	**12/21/12**	**1**	**0.33 Q J**	**5.5**	**0.11**	**1.0**	**0.33**
1,2,3,4,7,8-HxCDD	**12/21/12**	**1**	**0.80 J**	**5.5**	**0.12**	**0.1**	**0.080**
1,2,3,6,7,8-HxCDD	**12/21/12**	**1**	**2.9 J**	**5.5**	**0.13**	**0.1**	**0.29**
1,2,3,7,8,9-HxCDD	**12/21/12**	**1**	**1.6 C J**	**5.5**	**0.11**	**0.1**	**0.16**
1,2,3,4,6,7,8-HpCDD	**12/21/12**	**1**	**65**	**5.5**	**0.23**	**0.01**	**0.65**
OCDD	**12/21/12**	**1**	**580 B S**	**11**	**0.30**	**0.0003**	**0.17**
2,3,7,8-TCDF	**12/21/12**	**1**	**0.60 Q J**	**1.1**	**0.17**	**0.1**	**0.060**
1,2,3,7,8-PeCDF	**12/21/12**	**1**	**0.12 Q J**	**5.5**	**0.089**	**0.03**	**0.0036**
2,3,4,7,8-PeCDF	**12/21/12**	**1**	**0.37 Q J**	**5.5**	**0.081**	**0.3**	**0.11**
1,2,3,4,7,8-HxCDF	**12/21/12**	**1**	**1.4 C J**	**5.5**	**0.070**	**0.1**	**0.14**
1,2,3,6,7,8-HxCDF	**12/21/12**	**1**	**0.93 Q J**	**5.5**	**0.065**	**0.1**	**0.093**
2,3,4,6,7,8-HxCDF	**12/21/12**	**1**	**0.37 J**	**5.5**	**0.075**	**0.1**	**0.037**
1,2,3,7,8,9-HxCDF	12/21/12	1	ND	5.5	0.087	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/21/12**	**1**	**11**	**5.5**	**0.097**	**0.01**	**0.11**
1,2,3,4,7,8,9-HpCDF	**12/21/12**	**1**	**1.5 J**	**5.5**	**0.13**	**0.01**	**0.015**
OCDF	**12/21/12**	**1**	**17**	**11**	**0.21**	**0.0003**	**0.0051**
Total TEQ Concentration							**2.3**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	47	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	77	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	63	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	100	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-634-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-634-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 011	**Work Order #....:**	MXJEL1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	3.8
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	1.0	0.23	1.0	0
1,2,3,7,8-PeCDD	**12/26/12**	**1**	**0.31 Q J**	**5.2**	**0.12**	**1.0**	**0.31**
1,2,3,4,7,8-HxCDD	**12/26/12**	**1**	**0.49 J**	**5.2**	**0.099**	**0.1**	**0.049**
1,2,3,6,7,8-HxCDD	**12/26/12**	**1**	**2.1 J**	**5.2**	**0.11**	**0.1**	**0.21**
1,2,3,7,8,9-HxCDD	**12/26/12**	**1**	**1.1 Q J**	**5.2**	**0.096**	**0.1**	**0.11**
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**59**	**5.2**	**0.14**	**0.01**	**0.59**
OCDD	**12/26/12**	**1**	**710 S B**	**10**	**0.16**	**0.0003**	**0.21**
2,3,7,8-TCDF	**12/26/12**	**1**	**0.43 J**	**1.0**	**0.18**	**0.1**	**0.043**
1,2,3,7,8-PeCDF	**12/26/12**	**1**	**0.16 Q J**	**5.2**	**0.095**	**0.03**	**0.0048**
2,3,4,7,8-PeCDF	**12/26/12**	**1**	**0.33 J**	**5.2**	**0.088**	**0.3**	**0.099**
1,2,3,4,7,8-HxCDF	**12/26/12**	**1**	**0.95 C J**	**5.2**	**0.059**	**0.1**	**0.095**
1,2,3,6,7,8-HxCDF	**12/26/12**	**1**	**0.71 Q J**	**5.2**	**0.061**	**0.1**	**0.071**
2,3,4,6,7,8-HxCDF	**12/26/12**	**1**	**0.30 J**	**5.2**	**0.058**	**0.1**	**0.030**
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	5.2	0.077	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/26/12**	**1**	**11**	**5.2**	**0.079**	**0.01**	**0.11**
1,2,3,4,7,8,9-HpCDF	**12/26/12**	**1**	**0.83 Q J**	**5.2**	**0.12**	**0.01**	**0.0083**
OCDF	**12/26/12**	**1**	**36**	**10**	**0.19**	**0.0003**	**0.011**
Total TEQ Concentration							**2.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	53	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	81	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-634-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-635-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 012	**Work Order #....:**	MXJEM1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	18
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	1.2	0.50	1.0	0
1,2,3,7,8-PeCDD	**12/26/12**	**1**	**0.68 Q J**	**5.9**	**0.30**	**1.0**	**0.68**
1,2,3,4,7,8-HxCDD	**12/26/12**	**1**	**1.1 J**	**5.9**	**0.28**	**0.1**	**0.11**
1,2,3,6,7,8-HxCDD	**12/26/12**	**1**	**4.1 J**	**5.9**	**0.29**	**0.1**	**0.41**
1,2,3,7,8,9-HxCDD	**12/26/12**	**1**	**2.5 Q J**	**5.9**	**0.27**	**0.1**	**0.25**
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**99**	**5.9**	**0.46**	**0.01**	**0.99**
OCDD	**12/26/12**	**1**	**930 S B**	**12**	**0.58**	**0.0003**	**0.28**
2,3,7,8-TCDF	**12/26/12**	**1**	**0.54 J**	**1.2**	**0.28**	**0.1**	**0.054**
1,2,3,7,8-PeCDF	**12/26/12**	**1**	**0.27 Q J**	**5.9**	**0.17**	**0.03**	**0.0081**
2,3,4,7,8-PeCDF	**12/26/12**	**1**	**0.49 J**	**5.9**	**0.18**	**0.3**	**0.15**
1,2,3,4,7,8-HxCDF	**12/26/12**	**1**	**1.8 J C**	**5.9**	**0.14**	**0.1**	**0.18**
1,2,3,6,7,8-HxCDF	**12/26/12**	**1**	**1.3 Q J**	**5.9**	**0.12**	**0.1**	**0.13**
2,3,4,6,7,8-HxCDF	**12/26/12**	**1**	**0.53 J**	**5.9**	**0.14**	**0.1**	**0.053**
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	5.9	0.18	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/26/12**	**1**	**20**	**5.9**	**0.22**	**0.01**	**0.20**
1,2,3,4,7,8,9-HpCDF	**12/26/12**	**1**	**1.6 J**	**5.9**	**0.33**	**0.01**	**0.016**
OCDF	**12/26/12**	**1**	**69 Q**	**12**	**0.67**	**0.0003**	**0.021**
Total TEQ Concentration							**3.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	60	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	72	(23 - 140)
13C-OCDD	30	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	69	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	92	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	86	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	93	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	77	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-635-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-636-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 013	**Work Order #....:**	MXJEN1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	17
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	1.2	0.66	1.0	0
1,2,3,7,8-PeCDD	**12/26/12**	**1**	**0.61 Q J**	**6.0**	**0.37**	**1.0**	**0.61**
1,2,3,4,7,8-HxCDD	**12/26/12**	**1**	**0.86 J**	**6.0**	**0.33**	**0.1**	**0.086**
1,2,3,6,7,8-HxCDD	**12/26/12**	**1**	**1.2 Q J**	**6.0**	**0.34**	**0.1**	**0.12**
1,2,3,7,8,9-HxCDD	**12/26/12**	**1**	**0.77 J**	**6.0**	**0.31**	**0.1**	**0.077**
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**46**	**6.0**	**0.46**	**0.01**	**0.46**
OCDD	**12/26/12**	**1**	**430 S B**	**12**	**0.90**	**0.0003**	**0.13**
2,3,7,8-TCDF	12/26/12	1	ND	1.2	0.49	0.1	0
1,2,3,7,8-PeCDF	12/26/12	1	ND	6.0	0.29	0.03	0
2,3,4,7,8-PeCDF	12/26/12	1	ND	6.0	0.25	0.3	0
1,2,3,4,7,8-HxCDF	**12/26/12**	**1**	**0.81 J**	**6.0**	**0.18**	**0.1**	**0.081**
1,2,3,6,7,8-HxCDF	**12/26/12**	**1**	**0.87 Q J**	**6.0**	**0.18**	**0.1**	**0.087**
2,3,4,6,7,8-HxCDF	**12/26/12**	**1**	**0.38 Q J**	**6.0**	**0.19**	**0.1**	**0.038**
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	6.0	0.22	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/26/12**	**1**	**8.9**	**6.0**	**0.39**	**0.01**	**0.089**
1,2,3,4,7,8,9-HpCDF	12/26/12	1	ND	6.0	0.48	0.01	0
OCDF	**12/26/12**	**1**	**38**	**12**	**0.67**	**0.0003**	**0.011**
Total TEQ Concentration							**1.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
13C-1,2,3,7,8-PeCDD	92	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	37	(17 - 157)
13C-2,3,7,8-TCDF	88	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	90	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	96	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	93	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	111	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-636-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-636-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 014	**Work Order #....:**	MXJEP1AC	**Matrix.....:**	SO
Date Sampled....:	12/05/12	**Date Received....:**	12/08/12	**Units....:**	ng/kg
Prep Date....:	12/10/12			**Dilution Factor:**	1
Prep Batch # ....:	2345027			**Percent Moisture:**	4.7
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	1.0	0.62	1.0	0
1,2,3,7,8-PeCDD	12/26/12	1	ND	5.2	0.34	1.0	0
1,2,3,4,7,8-HxCDD	12/26/12	1	ND	5.2	0.30	0.1	0
1,2,3,6,7,8-HxCDD	12/26/12	1	ND	5.2	0.31	0.1	0
1,2,3,7,8,9-HxCDD	12/26/12	1	ND	5.2	0.28	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**2.3 Q J**	**5.2**	**0.29**	**0.01**	**0.023**
OCDD	**12/26/12**	**1**	**31 S B**	**10**	**0.93**	**0.0003**	**0.0093**
2,3,7,8-TCDF	12/26/12	1	ND	1.0	0.40	0.1	0
1,2,3,7,8-PeCDF	12/26/12	1	ND	5.2	0.18	0.03	0
2,3,4,7,8-PeCDF	12/26/12	1	ND	5.2	0.20	0.3	0
1,2,3,4,7,8-HxCDF	12/26/12	1	ND	5.2	0.14	0.1	0
1,2,3,6,7,8-HxCDF	12/26/12	1	ND	5.2	0.13	0.1	0
2,3,4,6,7,8-HxCDF	12/26/12	1	ND	5.2	0.13	0.1	0
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	5.2	0.16	0.1	0
1,2,3,4,6,7,8-HpCDF	12/26/12	1	ND	5.2	0.27	0.01	0
1,2,3,4,7,8,9-HpCDF	12/26/12	1	ND	5.2	0.36	0.01	0
OCDF	**12/26/12**	**1**	**1.8 Q J**	**10**	**0.72**	**0.0003**	**0.00054**
Total TEQ Concentration							**0.033**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	89	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	39	(17 - 157)
13C-2,3,7,8-TCDF	98	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	81	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	90	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-636-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	111	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: EB-120512

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L080401 - 015	**Work Order #....:**	MXJEQ1AA	**Matrix.....:**	WQ
Date Sampled....:	12/05/12	**Date Received....:**	12/06/12	**Units....:**	pg/L
Prep Date....:	12/18/12			**Dilution Factor:**	1
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1055 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	9.5	0.89	1.0	0
1,2,3,7,8-PeCDD	12/26/12	1	ND	47	0.45	1.0	0
1,2,3,4,7,8-HxCDD	12/26/12	1	ND	47	0.35	0.1	0
1,2,3,6,7,8-HxCDD	12/26/12	1	ND	47	0.38	0.1	0
1,2,3,7,8,9-HxCDD	12/26/12	1	ND	47	0.34	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**0.99 Q B J**	**47**	**0.35**	**0.01**	**0.0099**
OCDD	**12/26/12**	**1**	**3.3 Q B J**	**95**	**0.46**	**0.0003**	**0.00099**
2,3,7,8-TCDF	12/26/12	1	ND	9.5	0.48	0.1	0
1,2,3,7,8-PeCDF	12/26/12	1	ND	47	0.38	0.03	0
2,3,4,7,8-PeCDF	12/26/12	1	ND	47	0.31	0.3	0
1,2,3,4,7,8-HxCDF	12/26/12	1	ND	47	0.21	0.1	0
1,2,3,6,7,8-HxCDF	12/26/12	1	ND	47	0.21	0.1	0
2,3,4,6,7,8-HxCDF	12/26/12	1	ND	47	0.17	0.1	0
1,2,3,7,8,9-HxCDF	**12/26/12**	**1**	**0.33 Q B J**	**47**	**0.25**	**0.1**	**0.033**
1,2,3,4,6,7,8-HpCDF	**12/26/12**	**1**	**0.33 Q B J**	**47**	**0.27**	**0.01**	**0.0033**
1,2,3,4,7,8,9-HpCDF	12/26/12	1	ND	47	0.44	0.01	0
OCDF	**12/26/12**	**1**	**1.6 B J**	**95**	**0.41**	**0.0003**	**0.00048**
Total TEQ Concentration							**0.048**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	(25 - 164)
13C-1,2,3,7,8-PeCDD	113	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	92	(24 - 169)
13C-1,2,3,7,8-PeCDF	108	(24 - 185)
13C-2,3,4,7,8-PeCDF	110	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(35 - 197)

TestAmerica Denver

Client Sample ID: EB-120512

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 027B	**Work Order #....:**	MXJG31AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345027				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.36	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.15	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.15	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.13	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.15	ng/kg
OCDD	**0.47**	**J**	**10**	**0.14**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.20	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.094	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.084	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.085	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.079	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.090	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.10	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.093	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.13	ng/kg
OCDF	ND		10	0.14	ng/kg

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	25 - 164
13C-1,2,3,7,8-PeCDD	77	25 - 181
13C-1,2,3,4,7,8-HxCDD	80	32 - 141
13C-1,2,3,6,7,8-HxCDD	74	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	79	23 - 140
13C-OCDD	69	17 - 157
13C-2,3,7,8-TCDF	66	24 - 169
13C-1,2,3,7,8-PeCDF	71	24 - 185
13C-2,3,4,7,8-PeCDF	72	21 - 178
13C-1,2,3,4,7,8-HxCDF	73	26 - 152
13C-1,2,3,6,7,8-HxCDF	67	26 - 123
13C-2,3,4,6,7,8-HxCDF	72	28 - 136
13C-1,2,3,7,8,9-HxCDF	77	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	65	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	68	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L100000 - 027B	**Work Order #....:**	MXJG31AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/10/12	**Analysis Date....:**	12/21/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2345027				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	35 - 197

QUALIFIERS

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L080401	**Work Order # ...:**	MXJG31AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L100000 - 027				
Prep Date .....:	12/10/12	**Analysis Date ..:**	12/20/12		
Prep Batch # ...:	2345027				
Dilution Factor :	1				
Analyst ID.....:	Patricia(Trish) M. Parsl	**Instrument ID..:**	M1A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**19.9**	**ng/kg**	**100**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**99.7**	**ng/kg**	**100**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**98.4**	**ng/kg**	**98**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**		**(70 - 140)**
OCDD	**200**	**201**	**ng/kg**	**101**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.7**	**ng/kg**	**99**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**98.4**	**ng/kg**	**98**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**103**	**ng/kg**	**103**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**106**	**ng/kg**	**106**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**106**	**ng/kg**	**106**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**ng/kg**	**101**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**103**	**ng/kg**	**103**		**(78 - 138)**
OCDF	**200**	**175**	**ng/kg**	**87**		**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(20 - 175)
13C-1,2,3,7,8-PeCDD	73	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	80	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	72	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	71	(26 - 166)
13C-OCDD	62	(13 - 199)
13C-2,3,7,8-TCDF	60	(22 - 152)
13C-1,2,3,7,8-PeCDF	64	(21 - 192)
13C-2,3,4,7,8-PeCDF	67	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	72	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	66	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	70	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	74	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	62	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	62	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....: H2L190000 - 018B **Work Order #....:** MXM1L1AA **Matrix....:** WATER
Dilution Factor: 1
Prep Date....: 12/18/12 **Analysis Date....:** 12/26/12
Prep Batch # ....: 2354018
Initial Wgt/Vol : 1000 mL **Instrument ID....:** M2A **Method:** EPA-5 1613B
Analyst ID....: Melissa A. Davidson

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	1.6	pg/L
1,2,3,7,8-PeCDD	**0.91**	**Q J**	**50**	**0.73**	**pg/L**
1,2,3,4,7,8-HxCDD	**0.72**	**Q J**	**50**	**0.53**	**pg/L**
1,2,3,6,7,8-HxCDD	**0.85**	**Q J**	**50**	**0.55**	**pg/L**
1,2,3,7,8,9-HxCDD	**0.96**	**Q J**	**50**	**0.51**	**pg/L**
1,2,3,4,6,7,8-HpCDD	**1.5**	**J**	**50**	**0.68**	**pg/L**
OCDD	**11**	**J**	**100**	**0.63**	**pg/L**
2,3,7,8-TCDF	ND		10	1.0	pg/L
1,2,3,7,8-PeCDF	ND		50	0.69	pg/L
2,3,4,7,8-PeCDF	**1.1**	**Q J**	**50**	**0.62**	**pg/L**
1,2,3,4,7,8-HxCDF	**0.84**	**J**	**50**	**0.36**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		50	0.35	pg/L
2,3,4,6,7,8-HxCDF	**0.80**	**Q J**	**50**	**0.33**	**pg/L**
1,2,3,7,8,9-HxCDF	**1.0**	**J**	**50**	**0.45**	**pg/L**
1,2,3,4,6,7,8-HpCDF	**1.1**	**J**	**50**	**0.48**	**pg/L**
1,2,3,4,7,8,9-HpCDF	**2.1**	**Q J**	**50**	**0.90**	**pg/L**
OCDF	**2.7**	**Q J**	**100**	**0.74**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	25 - 164
13C-1,2,3,7,8-PeCDD	124	25 - 181
13C-1,2,3,4,7,8-HxCDD	99	32 - 141
13C-1,2,3,6,7,8-HxCDD	88	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	100	23 - 140
13C-OCDD	88	17 - 157
13C-2,3,7,8-TCDF	96	24 - 169
13C-1,2,3,7,8-PeCDF	122	24 - 185
13C-2,3,4,7,8-PeCDF	115	21 - 178
13C-1,2,3,4,7,8-HxCDF	87	26 - 152
13C-1,2,3,6,7,8-HxCDF	80	26 - 123
13C-2,3,4,6,7,8-HxCDF	89	28 - 136
13C-1,2,3,7,8,9-HxCDF	82	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	82	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	71	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L190000 - 018B	**Work Order #....:**	MXM1L1AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	12/18/12	**Analysis Date....:**	12/26/12		
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	104	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L080401	**Work Order # ...:**	MXM1L1AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H2L190000 - 018				
Prep Date .....:	12/18/12	**Analysis Date ..:**	12/26/12		
Prep Batch # ...:	2354018				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**228**	**pg/L**	**114**		**(67 - 158)**
1,2,3,7,8-PeCDD	**1000**	**1100**	**pg/L**	**110**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**1000**	**1030**	**pg/L**	**103**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**1000**	**962**	**pg/L**	**96**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**1000**	**953**	**pg/L**	**95**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**1000**	**995**	**pg/L**	**99**	**B**	**(70 - 140)**
OCDD	**2000**	**2040**	**pg/L**	**102**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**200**	**204**	**pg/L**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**1000**	**993**	**pg/L**	**99**		**(80 - 134)**
2,3,4,7,8-PeCDF	**1000**	**997**	**pg/L**	**100**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**1000**	**1010**	**pg/L**	**101**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**1000**	**1020**	**pg/L**	**102**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**1000**	**1040**	**pg/L**	**104**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**1000**	**1040**	**pg/L**	**104**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**1000**	**1010**	**pg/L**	**101**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**1000**	**1020**	**pg/L**	**102**	**B**	**(78 - 138)**
OCDF	**2000**	**1700**	**pg/L**	**85**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(20 - 175)
13C-1,2,3,7,8-PeCDD	121	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	103	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	93	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	95	(26 - 166)
13C-OCDD	86	(13 - 199)
13C-2,3,7,8-TCDF	96	(22 - 152)
13C-1,2,3,7,8-PeCDF	132	(21 - 192)
13C-2,3,4,7,8-PeCDF	117	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	97	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	86	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	91	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	86	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	92	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	85	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	111	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

H2L080401

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped:	12/5/2012	Contact Name:	Pam Hartman	COC No:	20121205-03
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1
AirbillNo:	794228641968			Lab:	Test America Knoxville
				Lab Phone:	865-291-3000
				Lab Address	5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-120512	12/5/12 14:00	WQ	None	2 - 1 L Amber	10 day									X																							pH 5 Rc/ncl

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/05/2012	1600	[signature]	12/6/12	1100						

1 cooler Rec'd @ 0.6°C
with custody Seal intact
[initials] 11/6/12
1 cooler Fed x #
7942 2864 1968

COC Rev 2

COC: 20121205-03, Page 1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L080401

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: _____

Sample Receiving Associate: George P. Hancock Date: 12/6/12

QA026R23.doc, 022812

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

1-12L D80401

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162745.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36640-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/17/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-519-SA6-SB-0.0-0.5 (280-36640-3)	12/5/12	09:00 Pacific		Solid			X	X	1	TEQs required
SL-519-SA6-SB-4.0-5.0 (280-36640-5)	12/5/12	09:45 Pacific		Solid			X	X	1	TEQs required
SL-519-SA6-SB-9.0-10.0 (280-36640-8)	12/5/12	09:55 Pacific		Solid			X	X	1	TEQs required
SL-519-SA6-SB-14.0-15.0 (280-36640-11)	12/5/12	10:00 Pacific		Solid			X	X	1	TEQs required
SL-519-SA6-SB-21.0-22.0 (280-36640-14)	12/5/12	10:05 Pacific		Solid			X	X	1	TEQs required
SL-550-SA6-SB-0.0-0.5 (280-36640-17)	12/5/12	09:50 Pacific		Solid			X	X	1	TEQs required
SL-633-SA6-SB-0.0-0.5 (280-36640-19)	12/5/12	10:30 Pacific		Solid			X	X	1	TEQs required
SL-633-SA6-SB-2.5-3.5 (280-36640-21)	12/5/12	10:50 Pacific		Solid			X	X	1	TEQs required
SL-520-SA6-SB-0.0-0.5 (280-36640-24)	12/5/12	12:45 Pacific		Solid			X	X	1	TEQs required
SL-634-SA6-SB-0.0-0.5 (280-36640-26)	12/5/12	13:45 Pacific		Solid			X	X	1	TEQs required
SL-634-SA6-SB-2.0-3.0 (280-36640-28)	12/5/12	14:00 Pacific		Solid			X	X	1	TEQs required

CUSTODY SEALS INTACT
RECEIVED AT 1.1°C
PKD 12-8-12
1 COOLER FEDX #
549D3693 1661

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
VWheeler	12712 16:00	TA	[signature]	12-8-12 08:45	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2208040 1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162745.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36640-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/17/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-635-SA6-SB-0.0-0.5 (280-36640-31)	12/5/12	14:20 Pacific		Solid			X	X	1	TEQs required
SL-636-SA6-SB-0.0-0.5 (280-36640-33)	12/5/12	12:40 Pacific		Solid			X	X	1	TEQs required
SL-636-SA6-SB-2.5-3.5 (280-36640-35)	12/5/12	13:15 Pacific		Solid			X	X	1	TEQs required
EB-120512 (280-36640-37)	12/5/12	14:00 Pacific		Water			X		2	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
VWheeler	12/7/12 16:00	TA	[illegible]	12-8-12 08:45	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 12L080401

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: _____

Sample Receiving Associate: Bryan Lawson Date: 12-8-12

QA026R23.doc, 022812

5, 1°C
R
12G 4
PA

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-120512	12/5/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-519-SA6-SB-0.0-0.5	12/5/12 09:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-0.0-0.5	12/5/12 09:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-4.0-5.0	12/5/12 09:45	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-4.0-5.0	12/5/12 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-4.5	12/5/12 09:44	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-9.0-10.0	12/5/12 09:55	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-9.0-10.0	12/5/12 09:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-9.5	12/5/12 09:54	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-14.0-15.0	12/5/12 10:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-14.0-15.0	12/5/12 10:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-14.5	12/5/12 09:59	SO	None	3 - Encore	10 day																				X												
SL-519-SA6-SB-21.0-22.0	12/5/12 10:05	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA6-SB-21.0-22.0	12/5/12 10:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA6-SB-21.5	12/5/12 10:04	SO	None	3 - Encore	10 day																				X												
SL-550-SA6-SB-0.0-0.5	12/5/12 09:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-550-SA6-SB-0.0-0.5	12/5/12 09:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-0.0-0.5	12/5/12 10:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-633-SA6-SB-0.0-0.5	12/5/12 10:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-2.5-3.5	12/5/12 10:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-633-SA6-SB-2.5-3.5	12/5/12 10:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-633-SA6-SB-3.0	12/5/12 10:55	SO	None	3 - Encore	10 day																				X												
SL-520-SA6-SB-0.0-0.5	12/5/12 12:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-520-SA6-SB-0.0-0.5	12/5/12 12:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-0.0-0.5	12/5/12 13:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-634-SA6-SB-0.0-0.5	12/5/12 13:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-2.0-3.0	12/5/12 14:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X				X											
SL-634-SA6-SB-2.0-3.0	12/5/12 14:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-634-SA6-SB-2.5	12/5/12 14:05	SO	None	3 - Encore	10 day																				X												
SL-635-SA6-SB-0.0-0.5	12/5/12 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-635-SA6-SB-0.0-0.5	12/5/12 14:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-0.0-0.5	12/5/12 12:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X										X												
SL-636-SA6-SB-0.0-0.5	12/5/12 12:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-2.5-3.5	12/5/12 13:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X										X												
SL-636-SA6-SB-2.5-3.5	12/5/12 13:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-636-SA6-SB-3.0	12/5/12 13:20	SO	None	3 - Encore	10 day																			X													

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/05/2012	1600	[illegible]	12/6/12	0930						

3.3°C

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2012
CarrierName: FedEx
AirbillNo: 794228531221

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121205-02
Cooler #: 4,5,6
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-120512	12/5/12 14:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB-120512	12/5/12 14:00	WQ	None	10 - 1 L Amber	10 day							X			X						X	X			X												
EB-120512	12/5/12 14:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB-120512	12/5/12 14:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: [signature]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/05/2012	1600	[signature]	12/6/12	0930						

COC Rev 2

COC: 20121205-02, Page 1 of 1 1 of 1

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36640-2

Login Number: 36640

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eichelberger, Elizabeth

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 06, 2012 1:21 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36640, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the twenty-one soil samples, equipment blank and trip blank received at the laboratory on 12/6/12.

The samples were received in acceptable condition at temperatures of 3.3ºC, 4.8ºC, 5.1ºC, 5.4ºC, 4.6ºC, 3.3ºC (Denver) and 0.6ºC.

Receipt Discrepancies: None

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.
2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.
3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample. For example, moisture data for sample SL-573-SA5B-SB-4.5 should be uploaded from sample SL-573-SA5B-SB-4.0-5.0.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36640-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [088915]
Attachments: 6

SAMPLE DELIVERY GROUP

280-36711-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36711-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/19/2012 12:38:59 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 6
Detection Summary 7
Method Summary 8
Sample Summary 9
Client Sample Results 10
QC Sample Results 16
QC Association 29
Chronicle 33
Chain of Custody 35
Receipt Checklists 41

Job ID: 280-36711-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36711-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Two Equipment Blanks were received under Chain of Custody on December 7, 2012. The samples were received in good condition at temperatures of 3.1°C, 3.6°C, 2.8°C, 3.2°C (Denver), 2.6°C (Nashville) and 4.9°C (Irvine).

Chain of Custody 20121206-03 requests TPH-GRO 8015 for sample EB2-120612 (280-36711-21); however, no 40mL VOA vials were received for this sample. As such, the requested Gasoline Range Organics analysis could not be logged for this sample. The client was notified on December 7, 2012 and confirmed that sample EB2-120612 (280-36711-21) should not be logged for TPH-GRO 8015, as it was requested on the Chain of Custody in error. A revised Chain of Custody was received via email on December 7, 2012. Both the original and revised Chains of Custody have been included.

The 7199 Hexavalent Chromium analysis presented in this report was performed at TestAmerica Irvine, 17461 Derian Avenue, Suite 100, Irvine, CA 92614-5817, 949-261-1022.

The 8315 Formaldehyde analysis presented in this report was performed at TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, 615-726-0177.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36711-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had an initial aliquot volume of 934.1 mL and 923.4 mL, respectively. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

Surrogate Terphenyl-d14 was recovered above the QC control limits in sample EB2-120612 (280-36711-21) at 141% (limits 45-130%). This is an indicator that data may be biased high. As no detectable concentrations are present above the reporting limits in the sample, corrective action is deemed unnecessary.

Low levels of 2-Methylnaphthalene, Benzo[a]anthracene, Benso[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene,

Job ID: 280-36711-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Benzo[k]fluoranthene, Chrysene, Dibenz(a,h,)anthracene, Fluoranthene, Indeno[1,2,3-cd]pyrene, Naphthalene, Phenanthrene and Pyrene were detected in the method blank associated with prep batch 280-151495. The values should be considered estimates, and have been flagged "J". Because the concentrations in the method blank were not present at levels greater than one half the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a "B". Usability of the sample data is not compromised.

Matrix spikes were not requested for prep batch 280-151495. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B
No anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had an initial aliquot volume of 976.5 mL and 936.4 mL, respectively. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

Matrix spikes were not requested for prep batch 280-151564. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

Matrix spikes were not requested for prep batch 280-151814. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had an initial aliquot volume of 869.6 mL and 970.8 mL, respectively. This is slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of samples EB1-120612 (280-36711-20) and EB2-120612 (280-36711-21) had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

The Aroclor 5460 MS/MSD analyses associated with prep batch 280-151435 were performed on sample EB2-120612 (280-36711-21). The MS/MSD exhibited relative percent difference (RPD) data outside the QC control limits for Aroclor 5460. The sample size used in the preparation of the matrix spike/matrix spike duplicate (MS/MSD) exceeded 10% difference. As the relative percent difference (RPD) calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-151797 exhibited the % Difference (%D) value above the control limits for Aroclor 5460. This is an indicator that data may be biased high. As no detectable concentrations are present in the associated sample, corrective action is deemed unnecessary.

The Continuing Calibration Verification (CCV) standard associated with analytical batch 280-151797 exhibited the % Difference (%D) value above the control limits for surrogate Decachlorobiphenyl. As the surrogate recoveries were in control for all samples

Job ID: 280-36711-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

associated with analytical batch 280-151797, corrective action is deemed unnecessary.

No other anomalies were observed.

IC / Hexavalent Chromium - SW846 Method 7199
No anomalies were observed.

HPLC / Formaldehyde - SW846 Method 8315A
No anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7470A
A low level of Thallium was detected in the method 6020A blank associated with prep batch 280-151250. The value should be considered an estimate, and has been flagged "J". Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. Usability of the sample data is not compromised.

The 6010C MS/MSD analyses associated with prep batch 280-151251 were performed on a sample from another client and/or job. The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum and Iron. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Iron and Manganese due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C post digestive spike (PDS) and serial dilution (SD) associated with prep batch 280-151251 was performed on a sample from another client and/or job. The serial dilution exhibited the percent difference recovery outside the control limits for Titanium, indicating that physical and chemical interferences were present. Additionally, the post digestive spike exhibited recoveries outside the control limits for Aluminum and Titanium. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

General Chemistry - pH
No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Client Sample ID: EB1-120612 — Lab Sample ID: 280-36711-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.012	J	0.11	0.0061	ug/L	1		8270C SIM	Total/NA
2-Methylnaphthalene	0.015	J B	0.11	0.0055	ug/L	1		8270C SIM	Total/NA
Acenaphthene	0.018	J	0.11	0.012	ug/L	1		8270C SIM	Total/NA
Fluorene	0.027	J	0.11	0.020	ug/L	1		8270C SIM	Total/NA
Naphthalene	0.071	J B	0.11	0.0057	ug/L	1		8270C SIM	Total/NA
Phenanthrene	0.028	J B	0.11	0.010	ug/L	1		8270C SIM	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	0.11	J	0.26	0.10	mg/L	1		8015B	Total/NA
Boron	0.0044	J	0.10	0.0044	mg/L	1		6010C	Total/NA
Manganese	0.00038	J	0.010	0.00025	mg/L	1		6010C	Total/NA
Sodium	0.19	J	1.0	0.092	mg/L	1		6010C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	5.70	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	20.0	HF	1.00	1.00	Degrees C	1		9040C	Total/NA

Client Sample ID: EB2-120612 — Lab Sample ID: 280-36711-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.011	J	0.11	0.0061	ug/L	1		8270C SIM	Total/NA
2-Methylnaphthalene	0.013	J B	0.11	0.0056	ug/L	1		8270C SIM	Total/NA
Acenaphthene	0.017	J	0.11	0.012	ug/L	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.0042	J B	0.11	0.0038	ug/L	1		8270C SIM	Total/NA
Chrysene	0.0038	J B	0.11	0.0035	ug/L	1		8270C SIM	Total/NA
Fluorene	0.022	J	0.11	0.020	ug/L	1		8270C SIM	Total/NA
Naphthalene	0.061	J B	0.11	0.0058	ug/L	1		8270C SIM	Total/NA
Phenanthrene	0.023	J B	0.11	0.011	ug/L	1		8270C SIM	Total/NA
BaP Equivalence	0.0000038	J	0.00010	0.0000032	ug/L	1		None	Total/NA
Sodium	0.15	J	1.0	0.092	mg/L	1		6010C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	5.44	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	20.0	HF	1.00	1.00	Degrees C	1		9040C	Total/NA

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7470A	Mercury (CVAA)	SW846	TAL DEN
9040C	pH	SW846	TAL DEN

Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36711-20	EB1-120612	Water	12/06/12 15:00	12/07/12 09:30
280-36711-21	EB2-120612	Water	12/06/12 15:30	12/07/12 09:30

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.012**	**J**	0.11	0.0061	ug/L		12/11/12 08:17	12/13/12 19:14	1
2-Methylnaphthalene	**0.015**	**J B**	0.11	0.0055	ug/L		12/11/12 08:17	12/13/12 19:14	1
Acenaphthene	**0.018**	**J**	0.11	0.012	ug/L		12/11/12 08:17	12/13/12 19:14	1
Acenaphthylene	ND		0.11	0.011	ug/L		12/11/12 08:17	12/13/12 19:14	1
Anthracene	ND		0.11	0.015	ug/L		12/11/12 08:17	12/13/12 19:14	1
Benzo[a]anthracene	ND		0.11	0.0034	ug/L		12/11/12 08:17	12/13/12 19:14	1
Benzo[a]pyrene	ND		0.11	0.0055	ug/L		12/11/12 08:17	12/13/12 19:14	1
Benzo[b]fluoranthene	ND		0.11	0.0037	ug/L		12/11/12 08:17	12/13/12 19:14	1
Benzo[g,h,i]perylene	ND		0.11	0.0038	ug/L		12/11/12 08:17	12/13/12 19:14	1
Benzo[k]fluoranthene	ND		0.11	0.0054	ug/L		12/11/12 08:17	12/13/12 19:14	1
Chrysene	ND		0.11	0.0034	ug/L		12/11/12 08:17	12/13/12 19:14	1
Dibenz(a,h)anthracene	ND		0.11	0.0052	ug/L		12/11/12 08:17	12/13/12 19:14	1
Fluoranthene	ND		0.11	0.0048	ug/L		12/11/12 08:17	12/13/12 19:14	1
Fluorene	**0.027**	**J**	0.11	0.020	ug/L		12/11/12 08:17	12/13/12 19:14	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.016	ug/L		12/11/12 08:17	12/13/12 19:14	1
Naphthalene	**0.071**	**J B**	0.11	0.0057	ug/L		12/11/12 08:17	12/13/12 19:14	1
N-Nitrosodimethylamine	ND		0.43	0.14	ug/L		12/11/12 08:17	12/13/12 19:14	1
Phenanthrene	**0.028**	**J B**	0.11	0.010	ug/L		12/11/12 08:17	12/13/12 19:14	1
Pyrene	ND		0.11	0.0087	ug/L		12/11/12 08:17	12/13/12 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*45 - 130*	*12/11/12 08:17*	*12/13/12 19:14*	*1*
Nitrobenzene-d5	*97*		*40 - 130*	*12/11/12 08:17*	*12/13/12 19:14*	*1*
Terphenyl-d14	*103*		*45 - 130*	*12/11/12 08:17*	*12/13/12 19:14*	*1*

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.011**	**J**	0.11	0.0061	ug/L		12/11/12 08:17	12/13/12 19:38	1
2-Methylnaphthalene	**0.013**	**J B**	0.11	0.0056	ug/L		12/11/12 08:17	12/13/12 19:38	1
Acenaphthene	**0.017**	**J**	0.11	0.012	ug/L		12/11/12 08:17	12/13/12 19:38	1
Acenaphthylene	ND		0.11	0.011	ug/L		12/11/12 08:17	12/13/12 19:38	1
Anthracene	ND		0.11	0.015	ug/L		12/11/12 08:17	12/13/12 19:38	1
Benzo[a]anthracene	ND		0.11	0.0035	ug/L		12/11/12 08:17	12/13/12 19:38	1
Benzo[a]pyrene	ND		0.11	0.0056	ug/L		12/11/12 08:17	12/13/12 19:38	1
Benzo[b]fluoranthene	ND		0.11	0.0037	ug/L		12/11/12 08:17	12/13/12 19:38	1
Benzo[g,h,i]perylene	**0.0042**	**J B**	0.11	0.0038	ug/L		12/11/12 08:17	12/13/12 19:38	1
Benzo[k]fluoranthene	ND		0.11	0.0055	ug/L		12/11/12 08:17	12/13/12 19:38	1
Chrysene	**0.0038**	**J B**	0.11	0.0035	ug/L		12/11/12 08:17	12/13/12 19:38	1
Dibenz(a,h)anthracene	ND		0.11	0.0052	ug/L		12/11/12 08:17	12/13/12 19:38	1
Fluoranthene	ND		0.11	0.0049	ug/L		12/11/12 08:17	12/13/12 19:38	1
Fluorene	**0.022**	**J**	0.11	0.020	ug/L		12/11/12 08:17	12/13/12 19:38	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.016	ug/L		12/11/12 08:17	12/13/12 19:38	1
Naphthalene	**0.061**	**J B**	0.11	0.0058	ug/L		12/11/12 08:17	12/13/12 19:38	1
N-Nitrosodimethylamine	ND		0.43	0.14	ug/L		12/11/12 08:17	12/13/12 19:38	1
Phenanthrene	**0.023**	**J B**	0.11	0.011	ug/L		12/11/12 08:17	12/13/12 19:38	1
Pyrene	ND		0.11	0.0088	ug/L		12/11/12 08:17	12/13/12 19:38	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		45 - 130	12/11/12 08:17	12/13/12 19:38	1
Nitrobenzene-d5	78		40 - 130	12/11/12 08:17	12/13/12 19:38	1
Terphenyl-d14	141	X	45 - 130	12/11/12 08:17	12/13/12 19:38	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.00010	0.0000032	ug/L			12/17/12 14:49	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**0.0000038**	**J**	0.00010	0.0000032	ug/L			12/17/12 14:49	1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/07/12 21:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		82 - 110		12/07/12 21:10	1

Method: 8015B - Diesel Range Organics

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1
EFH (C12-C14)	ND		0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1
EFH (C15-C20)	ND		0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1
EFH (C21-C30)	ND		0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1
EFH (C8-C11)	ND		0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1
Total Petroleum Hydrocarbons (C8-C40)	**0.11**	**J**	0.26	0.10	mg/L		12/11/12 10:47	12/13/12 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 115	12/11/12 10:47	12/13/12 00:18	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1
EFH (C12-C14)	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1
EFH (C15-C20)	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1
EFH (C21-C30)	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C8-C11)	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1
Total Petroleum Hydrocarbons (C8-C40)	ND		0.27	0.11	mg/L		12/12/12 14:08	12/15/12 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 115*	*12/12/12 14:08*	*12/15/12 03:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.1	0.14	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1221	ND		1.1	0.25	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1232	ND		1.1	0.19	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1242	ND		1.1	0.12	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1248	ND		1.1	0.11	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1254	ND		1.1	0.13	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1260	ND		1.1	0.18	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1262	ND		1.1	0.097	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 1268	ND		1.1	0.42	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 5432	ND		0.57	0.19	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 5442	ND		0.57	0.26	ug/L		12/10/12 16:30	12/13/12 01:37	1
Aroclor 5460	ND		0.57	0.15	ug/L		12/10/12 16:30	12/13/12 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*45 - 120*	*12/10/12 16:30*	*12/13/12 01:37*	*1*
Tetrachloro-m-xylene	*78*		*45 - 120*	*12/10/12 16:30*	*12/13/12 01:37*	*1*

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.13	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1221	ND		1.0	0.22	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1232	ND		1.0	0.17	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1242	ND		1.0	0.11	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1248	ND		1.0	0.094	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1254	ND		1.0	0.12	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1260	ND		1.0	0.16	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1262	ND		1.0	0.087	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 1268	ND		1.0	0.37	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 5432	ND		0.52	0.17	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 5442	ND		0.52	0.23	ug/L		12/10/12 16:30	12/13/12 01:59	1
Aroclor 5460	ND		0.52	0.13	ug/L		12/10/12 16:30	12/13/12 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*45 - 120*	*12/10/12 16:30*	*12/13/12 01:59*	*1*
Tetrachloro-m-xylene	*80*		*45 - 120*	*12/10/12 16:30*	*12/13/12 01:59*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Method: 7199 - Chromium, Hexavalent (IC)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		2.0	0.25	ug/L			12/07/12 11:17	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		2.0	0.25	ug/L			12/07/12 11:31	1

Method: 8315A - Carbonyl Compounds by HPLC

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		50	22	ug/L		12/08/12 10:46	12/09/12 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Butyraldehyde	*107*		*54 - 128*	*12/08/12 10:46*	*12/09/12 00:16*	*1*

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		50	22	ug/L		12/08/12 10:46	12/09/12 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Butyraldehyde	*110*		*54 - 128*	*12/08/12 10:46*	*12/09/12 00:42*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.018	mg/L		12/11/12 08:15	12/11/12 21:40	1
Boron	**0.0044**	**J**	0.10	0.0044	mg/L		12/11/12 08:15	12/11/12 21:40	1
Calcium	ND		0.20	0.035	mg/L		12/11/12 08:15	12/11/12 21:40	1
Iron	ND		0.10	0.022	mg/L		12/11/12 08:15	12/11/12 21:40	1
Lithium	ND		0.010	0.0026	mg/L		12/11/12 08:15	12/11/12 21:40	1
Magnesium	ND		0.20	0.011	mg/L		12/11/12 08:15	12/11/12 21:40	1
Manganese	**0.00038**	**J**	0.010	0.00025	mg/L		12/11/12 08:15	12/11/12 21:40	1
Phosphorus	ND		3.0	0.014	mg/L		12/11/12 08:15	12/11/12 21:40	1
Potassium	ND		3.0	0.24	mg/L		12/11/12 08:15	12/11/12 21:40	1
Sodium	**0.19**	**J**	1.0	0.092	mg/L		12/11/12 08:15	12/11/12 21:40	1
Strontium	ND		0.010	0.00030	mg/L		12/11/12 08:15	12/11/12 21:40	1
Tin	ND		0.10	0.0058	mg/L		12/11/12 08:15	12/11/12 21:40	1
Titanium	ND		0.010	0.00060	mg/L		12/11/12 08:15	12/11/12 21:40	1
Zirconium	ND		0.015	0.0024	mg/L		12/11/12 08:15	12/11/12 21:40	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Method: 6010C - Metals (ICP)

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.018	mg/L		12/11/12 08:15	12/11/12 21:42	1
Boron	ND		0.10	0.0044	mg/L		12/11/12 08:15	12/11/12 21:42	1
Calcium	ND		0.20	0.035	mg/L		12/11/12 08:15	12/11/12 21:42	1
Iron	ND		0.10	0.022	mg/L		12/11/12 08:15	12/11/12 21:42	1
Lithium	ND		0.010	0.0026	mg/L		12/11/12 08:15	12/11/12 21:42	1
Magnesium	ND		0.20	0.011	mg/L		12/11/12 08:15	12/11/12 21:42	1
Manganese	ND		0.010	0.00025	mg/L		12/11/12 08:15	12/11/12 21:42	1
Phosphorus	ND		3.0	0.014	mg/L		12/11/12 08:15	12/11/12 21:42	1
Potassium	ND		3.0	0.24	mg/L		12/11/12 08:15	12/11/12 21:42	1
Sodium	**0.15**	**J**	1.0	0.092	mg/L		12/11/12 08:15	12/11/12 21:42	1
Strontium	ND		0.010	0.00030	mg/L		12/11/12 08:15	12/11/12 21:42	1
Tin	ND		0.10	0.0058	mg/L		12/11/12 08:15	12/11/12 21:42	1
Titanium	ND		0.010	0.00060	mg/L		12/11/12 08:15	12/11/12 21:42	1
Zirconium	ND		0.015	0.0024	mg/L		12/11/12 08:15	12/11/12 21:42	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00040	mg/L		12/11/12 08:15	12/11/12 20:52	1
Arsenic	ND		0.0050	0.00033	mg/L		12/11/12 08:15	12/11/12 20:52	1
Barium	ND		0.0010	0.00029	mg/L		12/11/12 08:15	12/11/12 20:52	1
Beryllium	ND		0.0010	0.000080	mg/L		12/11/12 08:15	12/11/12 20:52	1
Cadmium	ND		0.0010	0.00010	mg/L		12/11/12 08:15	12/11/12 20:52	1
Chromium	ND		0.0020	0.00050	mg/L		12/11/12 08:15	12/11/12 20:52	1
Cobalt	ND		0.0010	0.000054	mg/L		12/11/12 08:15	12/11/12 20:52	1
Copper	ND		0.0020	0.00056	mg/L		12/11/12 08:15	12/11/12 20:52	1
Lead	ND		0.0010	0.00018	mg/L		12/11/12 08:15	12/11/12 20:52	1
Molybdenum	ND		0.0020	0.00014	mg/L		12/11/12 08:15	12/11/12 20:52	1
Nickel	ND		0.0020	0.00030	mg/L		12/11/12 08:15	12/11/12 20:52	1
Selenium	ND		0.0050	0.00070	mg/L		12/11/12 08:15	12/12/12 16:06	1
Silver	ND		0.0050	0.000033	mg/L		12/11/12 08:15	12/11/12 20:52	1
Thallium	ND		0.0010	0.000050	mg/L		12/11/12 08:15	12/11/12 20:52	1
Vanadium	ND		0.0050	0.00050	mg/L		12/11/12 08:15	12/11/12 20:52	1
Zinc	ND		0.010	0.0020	mg/L		12/11/12 08:15	12/11/12 20:52	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00040	mg/L		12/11/12 08:15	12/11/12 20:56	1
Arsenic	ND		0.0050	0.00033	mg/L		12/11/12 08:15	12/11/12 20:56	1
Barium	ND		0.0010	0.00029	mg/L		12/11/12 08:15	12/11/12 20:56	1
Beryllium	ND		0.0010	0.000080	mg/L		12/11/12 08:15	12/11/12 20:56	1
Cadmium	ND		0.0010	0.00010	mg/L		12/11/12 08:15	12/11/12 20:56	1
Chromium	ND		0.0020	0.00050	mg/L		12/11/12 08:15	12/11/12 20:56	1
Cobalt	ND		0.0010	0.000054	mg/L		12/11/12 08:15	12/11/12 20:56	1
Copper	ND		0.0020	0.00056	mg/L		12/11/12 08:15	12/11/12 20:56	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0010	0.00018	mg/L		12/11/12 08:15	12/11/12 20:56	1
Molybdenum	ND		0.0020	0.00014	mg/L		12/11/12 08:15	12/11/12 20:56	1
Nickel	ND		0.0020	0.00030	mg/L		12/11/12 08:15	12/11/12 20:56	1
Selenium	ND		0.0050	0.00070	mg/L		12/11/12 08:15	12/12/12 16:10	1
Silver	ND		0.0050	0.000033	mg/L		12/11/12 08:15	12/11/12 20:56	1
Thallium	ND		0.0010	0.000050	mg/L		12/11/12 08:15	12/11/12 20:56	1
Vanadium	ND		0.0050	0.00050	mg/L		12/11/12 08:15	12/11/12 20:56	1
Zinc	ND		0.010	0.0020	mg/L		12/11/12 08:15	12/11/12 20:56	1

Method: 7470A - Mercury (CVAA)

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000027	mg/L		12/10/12 12:50	12/10/12 20:13	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000027	mg/L		12/10/12 12:50	12/10/12 20:20	1

General Chemistry

Client Sample ID: EB1-120612 — **Lab Sample ID: 280-36711-20**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	**5.70**	**HF**	0.100	0.100	SU			12/07/12 14:15	1
Temperature	**20.0**	**HF**	1.00	1.00	Degrees C			12/07/12 14:15	1

Client Sample ID: EB2-120612 — **Lab Sample ID: 280-36711-21**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	**5.44**	**HF**	0.100	0.100	SU			12/07/12 14:18	1
Temperature	**20.0**	**HF**	1.00	1.00	Degrees C			12/07/12 14:18	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-151495/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152233 — **Prep Batch: 151495**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	0.0057	ug/L		12/11/12 08:17	12/13/12 17:59	1
2-Methylnaphthalene	0.00843	J	0.10	0.0052	ug/L		12/11/12 08:17	12/13/12 17:59	1
Acenaphthene	ND		0.10	0.011	ug/L		12/11/12 08:17	12/13/12 17:59	1
Acenaphthylene	ND		0.10	0.010	ug/L		12/11/12 08:17	12/13/12 17:59	1
Anthracene	ND		0.10	0.014	ug/L		12/11/12 08:17	12/13/12 17:59	1
Benzo[a]anthracene	0.0353	J	0.10	0.0032	ug/L		12/11/12 08:17	12/13/12 17:59	1
Benzo[a]pyrene	0.0209	J	0.10	0.0051	ug/L		12/11/12 08:17	12/13/12 17:59	1
Benzo[b]fluoranthene	0.0398	J	0.10	0.0034	ug/L		12/11/12 08:17	12/13/12 17:59	1
Benzo[g,h,i]perylene	0.0388	J	0.10	0.0036	ug/L		12/11/12 08:17	12/13/12 17:59	1
Benzo[k]fluoranthene	0.0387	J	0.10	0.0051	ug/L		12/11/12 08:17	12/13/12 17:59	1
Chrysene	0.0407	J	0.10	0.0032	ug/L		12/11/12 08:17	12/13/12 17:59	1
Dibenz(a,h)anthracene	0.0346	J	0.10	0.0048	ug/L		12/11/12 08:17	12/13/12 17:59	1
Fluoranthene	0.0273	J	0.10	0.0045	ug/L		12/11/12 08:17	12/13/12 17:59	1
Fluorene	ND		0.10	0.019	ug/L		12/11/12 08:17	12/13/12 17:59	1
Indeno[1,2,3-cd]pyrene	0.0389	J	0.10	0.015	ug/L		12/11/12 08:17	12/13/12 17:59	1
Naphthalene	0.00571	J	0.10	0.0053	ug/L		12/11/12 08:17	12/13/12 17:59	1
N-Nitrosodimethylamine	ND		0.40	0.13	ug/L		12/11/12 08:17	12/13/12 17:59	1
Phenanthrene	0.0177	J	0.10	0.0098	ug/L		12/11/12 08:17	12/13/12 17:59	1
Pyrene	0.0282	J	0.10	0.0081	ug/L		12/11/12 08:17	12/13/12 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*45 - 130*	*12/11/12 08:17*	*12/13/12 17:59*	*1*
Nitrobenzene-d5	*87*		*40 - 130*	*12/11/12 08:17*	*12/13/12 17:59*	*1*
Terphenyl-d14	*115*		*45 - 130*	*12/11/12 08:17*	*12/13/12 17:59*	*1*

Lab Sample ID: LCS 280-151495/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152233 — **Prep Batch: 151495**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	0.900	0.806		ug/L		90	44 - 150
2-Methylnaphthalene	0.900	0.775		ug/L		86	36 - 121
Acenaphthene	0.900	0.830		ug/L		92	47 - 120
Acenaphthylene	0.900	0.823		ug/L		91	39 - 120
Anthracene	0.900	0.834		ug/L		93	28 - 120
Benzo[a]anthracene	0.900	0.895		ug/L		99	42 - 120
Benzo[a]pyrene	0.900	0.910		ug/L		101	38 - 120
Benzo[b]fluoranthene	0.900	0.897		ug/L		100	44 - 120
Benzo[g,h,i]perylene	0.900	0.946		ug/L		105	39 - 120
Benzo[k]fluoranthene	0.900	0.909		ug/L		101	43 - 120
Chrysene	0.900	0.955		ug/L		106	35 - 120
Dibenz(a,h)anthracene	0.900	0.882		ug/L		98	27 - 126
Fluoranthene	0.900	0.889		ug/L		99	46 - 120
Fluorene	0.900	0.835		ug/L		93	49 - 120
Indeno[1,2,3-cd]pyrene	0.900	0.873		ug/L		97	38 - 120
Naphthalene	0.900	0.774		ug/L		86	37 - 120
Phenanthrene	0.900	0.866		ug/L		96	46 - 120
Pyrene	0.900	0.930		ug/L		103	49 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-151495/2-A
Matrix: Water
Analysis Batch: 152233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151495

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*45 - 130*
Nitrobenzene-d5	*90*		*40 - 130*
Terphenyl-d14	*107*		*45 - 130*

Lab Sample ID: LCSD 280-151495/3-A
Matrix: Water
Analysis Batch: 152233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 151495

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	0.900	0.822		ug/L		91	44 - 150	2	50
2-Methylnaphthalene	0.900	0.785		ug/L		87	36 - 121	1	30
Acenaphthene	0.900	0.839		ug/L		93	47 - 120	1	50
Acenaphthylene	0.900	0.828		ug/L		92	39 - 120	1	50
Anthracene	0.900	0.837		ug/L		93	28 - 120	0	50
Benzo[a]anthracene	0.900	0.894		ug/L		99	42 - 120	0	40
Benzo[a]pyrene	0.900	0.904		ug/L		100	38 - 120	1	21
Benzo[b]fluoranthene	0.900	0.891		ug/L		99	44 - 120	1	28
Benzo[g,h,i]perylene	0.900	0.935		ug/L		104	39 - 120	1	23
Benzo[k]fluoranthene	0.900	0.907		ug/L		101	43 - 120	0	28
Chrysene	0.900	0.958		ug/L		106	35 - 120	0	41
Dibenz(a,h)anthracene	0.900	0.865		ug/L		96	27 - 126	2	25
Fluoranthene	0.900	0.887		ug/L		99	46 - 120	0	24
Fluorene	0.900	0.835		ug/L		93	49 - 120	0	50
Indeno[1,2,3-cd]pyrene	0.900	0.856		ug/L		95	38 - 120	2	25
Naphthalene	0.900	0.790		ug/L		88	37 - 120	2	50
Phenanthrene	0.900	0.872		ug/L		97	46 - 120	1	42
Pyrene	0.900	0.934		ug/L		104	49 - 120	0	22

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*45 - 130*
Nitrobenzene-d5	*90*		*40 - 130*
Terphenyl-d14	*125*		*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-151153/7
Matrix: Water
Analysis Batch: 151153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/07/12 16:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*107*		*82 - 110*		*12/07/12 16:44*	*1*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 280-151153/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	100		ug/L		100	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*105*		*82 - 110*

Lab Sample ID: LCSD 280-151153/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	102		ug/L		101	79 - 149	2	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*107*		*82 - 110*

Lab Sample ID: 280-36415-J-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	3200		1010	4190		ug/L		100	79 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*82 - 110*

Lab Sample ID: 280-36415-J-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	3200		1010	4260		ug/L		107	79 - 149	2	27

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*105*		*82 - 110*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-151564/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C12-C14)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C15-C20)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C21-C30)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1
EFH (C8-C11)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: MB 280-151564/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	ND		0.25	0.10	mg/L		12/11/12 10:47	12/13/12 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 115*	*12/11/12 10:47*	*12/13/12 10:40*	*1*

Lab Sample ID: LCS 280-151564/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	1.00	0.906		mg/L		91	24 - 115
EFH (C15-C20)	1.50	1.53		mg/L		102	69 - 115
EFH (C21-C30)	2.00	1.99		mg/L		99	75 - 115
EFH (C8-C11)	0.500	0.302		mg/L		60	10 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 115*

Lab Sample ID: LCSD 280-151564/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152487 — **Prep Batch: 151564**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	1.00	0.897		mg/L		90	24 - 115	1	30
EFH (C15-C20)	1.50	1.49		mg/L		99	69 - 115	3	30
EFH (C21-C30)	2.00	1.83		mg/L		91	75 - 115	8	30
EFH (C8-C11)	0.500	0.289		mg/L		58	10 - 115	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 115*

Lab Sample ID: MB 280-151814/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152579 — **Prep Batch: 151814**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1
EFH (C12-C14)	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1
EFH (C15-C20)	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1
EFH (C21-C30)	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1
EFH (C8-C11)	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1
Total Petroleum Hydrocarbons (C8-C40)	ND		0.25	0.10	mg/L		12/12/12 14:08	12/15/12 02:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 115*	*12/12/12 14:08*	*12/15/12 02:06*	*1*

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: LCS 280-151814/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152579 — **Prep Batch: 151814**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	1.00	0.821		mg/L		82	24 - 115
EFH (C15-C20)	1.50	1.30		mg/L		87	69 - 115
EFH (C21-C30)	2.00	1.62		mg/L		81	75 - 115
EFH (C8-C11)	0.500	0.300		mg/L		60	10 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*85*		*50 - 115*

Lab Sample ID: LCSD 280-151814/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152579 — **Prep Batch: 151814**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	1.00	0.993		mg/L		99	24 - 115	19	30
EFH (C15-C20)	1.50	1.53		mg/L		102	69 - 115	16	30
EFH (C21-C30)	2.00	1.82		mg/L		91	75 - 115	11	30
EFH (C8-C11)	0.500	0.355		mg/L		71	10 - 115	17	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 115*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-151435/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.12	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1221	ND		1.0	0.21	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1232	ND		1.0	0.17	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1242	ND		1.0	0.10	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1248	ND		1.0	0.092	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1254	ND		1.0	0.11	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1260	ND		1.0	0.16	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1262	ND		1.0	0.085	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 1268	ND		1.0	0.36	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 5432	ND		0.50	0.16	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 5442	ND		0.50	0.22	ug/L		12/10/12 16:30	12/13/12 00:33	1
Aroclor 5460	ND		0.50	0.13	ug/L		12/10/12 16:30	12/13/12 00:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*45 - 120*	*12/10/12 16:30*	*12/13/12 00:33*	*1*
Tetrachloro-m-xylene	*89*		*45 - 120*	*12/10/12 16:30*	*12/13/12 00:33*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 280-151435/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	2.00	1.95		ug/L		98	58 - 128
Aroclor 1260	2.00	2.44		ug/L		122	69 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*106*		*45 - 120*
Tetrachloro-m-xylene	*90*		*45 - 120*

Lab Sample ID: LCS 280-151435/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	2.00	1.89		ug/L		95	63 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*109*		*45 - 120*
Tetrachloro-m-xylene	*89*		*45 - 120*

Lab Sample ID: 280-36711-21 MS — **Client Sample ID: EB2-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		2.03	1.76		ug/L		87	58 - 128
Aroclor 1260	ND		2.03	2.76		ug/L		136	69 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*116*		*45 - 120*
Tetrachloro-m-xylene	*82*		*45 - 120*

Lab Sample ID: 280-36711-21 MS — **Client Sample ID: EB2-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	ND		2.00	1.94		ug/L		97	63 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*114*		*45 - 120*
Tetrachloro-m-xylene	*79*		*45 - 120*

Lab Sample ID: 280-36711-21 MSD — **Client Sample ID: EB2-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		2.13	2.24		ug/L		105	58 - 128	24	30

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36711-21 MSD — **Client Sample ID: EB2-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1260	ND		2.13	2.90		ug/L		136	69 - 140	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*116*		*45 - 120*
Tetrachloro-m-xylene	*86*		*45 - 120*

Lab Sample ID: 280-36711-21 MSD — **Client Sample ID: EB2-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151797 — **Prep Batch: 151435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		2.54	2.56	F	ug/L		101	63 - 129	28	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*116*		*45 - 120*
Tetrachloro-m-xylene	*84*		*45 - 120*

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-71685/37 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 71685

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium VI	ND		2.0	0.25	ug/L			12/07/12 03:50	1

Lab Sample ID: LCS 440-71685/36 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 71685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium VI	50.0	47.9		ug/L		96	90 - 110

Lab Sample ID: 440-31799-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 71685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium VI	25		50.0	80.4		ug/L		110	85 - 115

Lab Sample ID: 440-31799-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 71685

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium VI	25		50.0	81.2		ug/L		112	85 - 115	1	20

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-42263/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 42479 — **Prep Batch: 42263**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		50	22	ug/L		12/08/12 10:46	12/08/12 21:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Butyraldehyde	*97*		*54 - 128*	*12/08/12 10:46*	*12/08/12 21:16*	*1*

Lab Sample ID: LCS 490-42263/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 42479 — **Prep Batch: 42263**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	100	127		ug/L		127	39 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Butyraldehyde	*110*		*54 - 128*

Lab Sample ID: 490-13768-H-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 42479 — **Prep Batch: 42263**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	ND		100	110		ug/L		110	33 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Butyraldehyde	*110*		*54 - 128*

Lab Sample ID: 490-13768-H-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 42479 — **Prep Batch: 42263**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Formaldehyde	ND		100	107		ug/L		107	33 - 137	3	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Butyraldehyde	*87*		*54 - 128*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-151251/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151722 — **Prep Batch: 151251**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.018	mg/L		12/11/12 08:15	12/11/12 20:55	1
Boron	ND		0.10	0.0044	mg/L		12/11/12 08:15	12/11/12 20:55	1
Calcium	ND		0.20	0.035	mg/L		12/11/12 08:15	12/11/12 20:55	1
Iron	ND		0.10	0.022	mg/L		12/11/12 08:15	12/11/12 20:55	1
Lithium	ND		0.010	0.0026	mg/L		12/11/12 08:15	12/11/12 20:55	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 280-151251/1-A
Matrix: Water
Analysis Batch: 151722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		0.20	0.011	mg/L		12/11/12 08:15	12/11/12 20:55	1
Manganese	ND		0.010	0.00025	mg/L		12/11/12 08:15	12/11/12 20:55	1
Phosphorus	ND		3.0	0.014	mg/L		12/11/12 08:15	12/11/12 20:55	1
Potassium	ND		3.0	0.24	mg/L		12/11/12 08:15	12/11/12 20:55	1
Sodium	ND		1.0	0.092	mg/L		12/11/12 08:15	12/11/12 20:55	1
Strontium	ND		0.010	0.00030	mg/L		12/11/12 08:15	12/11/12 20:55	1
Tin	ND		0.10	0.0058	mg/L		12/11/12 08:15	12/11/12 20:55	1
Titanium	ND		0.010	0.00060	mg/L		12/11/12 08:15	12/11/12 20:55	1
Zirconium	ND		0.015	0.0024	mg/L		12/11/12 08:15	12/11/12 20:55	1

Lab Sample ID: LCS 280-151251/2-A
Matrix: Water
Analysis Batch: 151722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2.00	1.97		mg/L		98	80 - 120
Boron	1.00	0.965		mg/L		97	80 - 120
Calcium	50.0	47.6		mg/L		95	80 - 120
Iron	1.00	0.974		mg/L		97	80 - 120
Lithium	1.00	1.03		mg/L		103	80 - 120
Magnesium	50.0	51.5		mg/L		103	80 - 120
Manganese	0.500	0.483		mg/L		97	80 - 120
Phosphorus	10.0	10.4		mg/L		104	80 - 120
Potassium	50.0	49.4		mg/L		99	80 - 120
Sodium	50.0	53.1		mg/L		106	80 - 120
Strontium	1.00	1.02		mg/L		102	80 - 120
Tin	2.00	2.04		mg/L		102	80 - 120
Titanium	1.00	1.03		mg/L		103	80 - 120
Zirconium	0.500	0.476		mg/L		95	80 - 120

Lab Sample ID: 280-36661-A-4-F MS
Matrix: Water
Analysis Batch: 151722

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 151251

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.4		2.00	15.7	F	mg/L		514	75 - 125
Boron	0.31		1.00	1.27		mg/L		96	75 - 125
Calcium	89		50.0	136		mg/L		95	75 - 125
Iron	9.8		1.00	11.3	4	mg/L		145	75 - 125
Lithium	0.14		1.00	1.21		mg/L		107	75 - 125
Magnesium	260		50.0	310	4	mg/L		98	75 - 125
Manganese	0.21		0.500	0.698		mg/L		97	75 - 125
Phosphorus	0.069	J	10.0	10.7		mg/L		106	75 - 125
Potassium	13		50.0	65.3		mg/L		105	75 - 125
Sodium	98		50.0	153		mg/L		110	75 - 125
Strontium	1.4		1.00	2.42		mg/L		104	75 - 125
Tin	ND		2.00	2.00		mg/L		100	75 - 125
Titanium	0.11		1.00	1.17		mg/L		106	75 - 125
Zirconium	0.0037	J	0.500	0.491		mg/L		97	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36661-A-4-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151722 — **Prep Batch: 151251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	5.4		2.00	16.3	F	mg/L		547	75 - 125	4	20
Boron	0.31		1.00	1.25		mg/L		94	75 - 125	2	20
Calcium	89		50.0	134		mg/L		91	75 - 125	2	20
Iron	9.8		1.00	11.7	4	mg/L		186	75 - 125	4	20
Lithium	0.14		1.00	1.19		mg/L		105	75 - 125	1	20
Magnesium	260		50.0	307	4	mg/L		93	75 - 125	1	20
Manganese	0.21		0.500	0.697		mg/L		96	75 - 125	0	20
Phosphorus	0.069	J	10.0	10.5		mg/L		105	75 - 125	1	20
Potassium	13		50.0	64.6		mg/L		103	75 - 125	1	20
Sodium	98		50.0	150		mg/L		104	75 - 125	2	20
Strontium	1.4		1.00	2.39		mg/L		101	75 - 125	2	20
Tin	ND		2.00	1.97		mg/L		98	75 - 125	2	20
Titanium	0.11		1.00	1.17		mg/L		106	75 - 125	0	20
Zirconium	0.0037	J	0.500	0.482		mg/L		96	75 - 125	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-151250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00040	mg/L		12/11/12 08:15	12/11/12 19:37	1
Arsenic	ND		0.0050	0.00033	mg/L		12/11/12 08:15	12/11/12 19:37	1
Barium	ND		0.0010	0.00029	mg/L		12/11/12 08:15	12/11/12 19:37	1
Beryllium	ND		0.0010	0.000080	mg/L		12/11/12 08:15	12/11/12 19:37	1
Cadmium	ND		0.0010	0.00010	mg/L		12/11/12 08:15	12/11/12 19:37	1
Chromium	ND		0.0020	0.00050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Cobalt	ND		0.0010	0.000054	mg/L		12/11/12 08:15	12/11/12 19:37	1
Copper	ND		0.0020	0.00056	mg/L		12/11/12 08:15	12/11/12 19:37	1
Lead	ND		0.0010	0.00018	mg/L		12/11/12 08:15	12/11/12 19:37	1
Molybdenum	ND		0.0020	0.00014	mg/L		12/11/12 08:15	12/11/12 19:37	1
Nickel	ND		0.0020	0.00030	mg/L		12/11/12 08:15	12/11/12 19:37	1
Silver	ND		0.0050	0.000033	mg/L		12/11/12 08:15	12/11/12 19:37	1
Thallium	0.000287	J	0.0010	0.000050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Vanadium	ND		0.0050	0.00050	mg/L		12/11/12 08:15	12/11/12 19:37	1
Zinc	ND		0.010	0.0020	mg/L		12/11/12 08:15	12/11/12 19:37	1

Lab Sample ID: MB 280-151250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0050	0.00070	mg/L		12/11/12 08:15	12/12/12 14:09	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-151250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0400	0.0406		mg/L		102	80 - 120
Arsenic	0.0400	0.0407		mg/L		102	80 - 120
Barium	0.0400	0.0409		mg/L		102	80 - 120
Beryllium	0.0400	0.0415		mg/L		104	80 - 120
Cadmium	0.0400	0.0405		mg/L		101	80 - 120
Chromium	0.0400	0.0420		mg/L		105	80 - 120
Cobalt	0.0400	0.0419		mg/L		105	80 - 120
Copper	0.0400	0.0415		mg/L		104	80 - 120
Lead	0.0400	0.0448		mg/L		112	80 - 120
Molybdenum	0.0400	0.0408		mg/L		102	80 - 120
Nickel	0.0400	0.0420		mg/L		105	80 - 120
Silver	0.0400	0.0409		mg/L		102	80 - 120
Thallium	0.0400	0.0412		mg/L		103	80 - 120
Vanadium	0.0400	0.0404		mg/L		101	80 - 120
Zinc	0.0400	0.0413		mg/L		103	80 - 120

Lab Sample ID: LCS 280-151250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.0400	0.0402		mg/L		100	80 - 120

Lab Sample ID: 280-36661-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0012	J	0.0400	0.0345		mg/L		83	75 - 125
Arsenic	0.0085		0.0400	0.0483		mg/L		100	75 - 125
Barium	0.039		0.0400	0.0768		mg/L		95	75 - 125
Beryllium	0.00035	J	0.0400	0.0416		mg/L		103	75 - 125
Cadmium	ND		0.0400	0.0396		mg/L		99	75 - 125
Chromium	0.0082		0.0400	0.0474		mg/L		98	75 - 125
Cobalt	0.023		0.0400	0.0630		mg/L		100	75 - 125
Copper	0.010		0.0400	0.0490		mg/L		96	75 - 125
Lead	0.0063		0.0400	0.0458		mg/L		99	75 - 125
Molybdenum	0.0026		0.0400	0.0427		mg/L		100	75 - 125
Nickel	0.033		0.0400	0.0716		mg/L		98	75 - 125
Silver	ND		0.0400	0.0394		mg/L		99	75 - 125
Thallium	0.00092	J B	0.0400	0.0394		mg/L		96	75 - 125
Vanadium	0.015		0.0400	0.0518		mg/L		93	75 - 125
Zinc	0.036		0.0400	0.0690		mg/L		83	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36661-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Selenium	0.0023	J	0.0400	0.0458		mg/L		109	75 - 125		

Lab Sample ID: 280-36661-A-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151741 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0012	J	0.0400	0.0342		mg/L		82	75 - 125	1	20
Arsenic	0.0085		0.0400	0.0478		mg/L		98	75 - 125	1	20
Barium	0.039		0.0400	0.0741		mg/L		88	75 - 125	4	20
Beryllium	0.00035	J	0.0400	0.0408		mg/L		101	75 - 125	2	20
Cadmium	ND		0.0400	0.0394		mg/L		98	75 - 125	0	20
Chromium	0.0082		0.0400	0.0481		mg/L		100	75 - 125	1	20
Cobalt	0.023		0.0400	0.0628		mg/L		100	75 - 125	0	20
Copper	0.010		0.0400	0.0493		mg/L		97	75 - 125	1	20
Lead	0.0063		0.0400	0.0458		mg/L		99	75 - 125	0	20
Molybdenum	0.0026		0.0400	0.0433		mg/L		102	75 - 125	1	20
Nickel	0.033		0.0400	0.0728		mg/L		101	75 - 125	2	20
Silver	ND		0.0400	0.0393		mg/L		98	75 - 125	0	20
Thallium	0.00092	J B	0.0400	0.0401		mg/L		98	75 - 125	2	20
Vanadium	0.015		0.0400	0.0521		mg/L		93	75 - 125	1	20
Zinc	0.036		0.0400	0.0710		mg/L		88	75 - 125	3	20

Lab Sample ID: 280-36661-A-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151968 — **Prep Batch: 151250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.0023	J	0.0400	0.0453		mg/L		108	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-151068/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000027	mg/L		12/10/12 12:50	12/10/12 20:03	1

Lab Sample ID: LCS 280-151068/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00498		mg/L		100	90 - 115

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 280-36711-20 MS — **Client Sample ID: EB1-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00500	0.00476		mg/L		95	75 - 125		

Lab Sample ID: 280-36711-20 MSD — **Client Sample ID: EB1-120612**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151560 — **Prep Batch: 151068**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00472		mg/L		94	75 - 125	1	20

Method: 9040C - pH

Lab Sample ID: LCS 280-150967/30 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	7.010		SU		100	90 - 110		

Lab Sample ID: LCS 280-150967/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	7.020		SU		100	90 - 110		

Lab Sample ID: LCSD 280-150967/31 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	7.030		SU		100	90 - 110	0	5

Lab Sample ID: LCSD 280-150967/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	7.010		SU		100	90 - 110	0	5

Lab Sample ID: 280-36691-B-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150967

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	8.67			8.670		SU				0	5

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

GC/MS Semi VOA

Prep Batch: 151495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	3510C	
280-36711-21	EB2-120612	Total/NA	Water	3510C	
LCS 280-151495/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-151495/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-151495/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 152233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	8270C SIM	151495
280-36711-21	EB2-120612	Total/NA	Water	8270C SIM	151495
LCS 280-151495/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	151495
LCSD 280-151495/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	151495
MB 280-151495/1-A	Method Blank	Total/NA	Water	8270C SIM	151495

Analysis Batch: 152588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	None	
280-36711-21	EB2-120612	Total/NA	Water	None	

GC VOA

Analysis Batch: 151153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36415-J-1 MS	Matrix Spike	Total/NA	Water	8015B	
280-36415-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
280-36711-20	EB1-120612	Total/NA	Water	8015B	
LCS 280-151153/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-151153/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-151153/7	Method Blank	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 151435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	3510C	
280-36711-21	EB2-120612	Total/NA	Water	3510C	
280-36711-21 MS	EB2-120612	Total/NA	Water	3510C	
280-36711-21 MS	EB2-120612	Total/NA	Water	3510C	
280-36711-21 MSD	EB2-120612	Total/NA	Water	3510C	
280-36711-21 MSD	EB2-120612	Total/NA	Water	3510C	
LCS 280-151435/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-151435/3-A	Lab Control Sample	Total/NA	Water	3510C	
MB 280-151435/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 151564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	3510C	
LCS 280-151564/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-151564/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-151564/1-A	Method Blank	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Analysis Batch: 151797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	8082A	151435
280-36711-21	EB2-120612	Total/NA	Water	8082A	151435
280-36711-21 MS	EB2-120612	Total/NA	Water	8082A	151435
280-36711-21 MS	EB2-120612	Total/NA	Water	8082A	151435
280-36711-21 MSD	EB2-120612	Total/NA	Water	8082A	151435
280-36711-21 MSD	EB2-120612	Total/NA	Water	8082A	151435
LCS 280-151435/2-A	Lab Control Sample	Total/NA	Water	8082A	151435
LCS 280-151435/3-A	Lab Control Sample	Total/NA	Water	8082A	151435
MB 280-151435/1-A	Method Blank	Total/NA	Water	8082A	151435

Prep Batch: 151814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-21	EB2-120612	Total/NA	Water	3510C	
LCS 280-151814/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-151814/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-151814/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 152487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	8015B	151564
LCS 280-151564/2-A	Lab Control Sample	Total/NA	Water	8015B	151564
LCSD 280-151564/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	151564
MB 280-151564/1-A	Method Blank	Total/NA	Water	8015B	151564

Analysis Batch: 152579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-21	EB2-120612	Total/NA	Water	8015B	151814
LCS 280-151814/2-A	Lab Control Sample	Total/NA	Water	8015B	151814
LCSD 280-151814/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	151814
MB 280-151814/1-A	Method Blank	Total/NA	Water	8015B	151814

HPLC/IC

Prep Batch: 42263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	8315_W_Prep	
280-36711-21	EB2-120612	Total/NA	Water	8315_W_Prep	
490-13768-H-1-B MS	Matrix Spike	Total/NA	Water	8315_W_Prep	
490-13768-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8315_W_Prep	
LCS 490-42263/2-A	Lab Control Sample	Total/NA	Water	8315_W_Prep	
MB 490-42263/1-A	Method Blank	Total/NA	Water	8315_W_Prep	

Analysis Batch: 42479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	8315A	42263
280-36711-21	EB2-120612	Total/NA	Water	8315A	42263
490-13768-H-1-B MS	Matrix Spike	Total/NA	Water	8315A	42263
490-13768-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8315A	42263
LCS 490-42263/2-A	Lab Control Sample	Total/NA	Water	8315A	42263
MB 490-42263/1-A	Method Blank	Total/NA	Water	8315A	42263

HPLC/IC (Continued)

Analysis Batch: 71685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	7199	
280-36711-21	EB2-120612	Total/NA	Water	7199	
440-31799-B-1 MS	Matrix Spike	Total/NA	Water	7199	
440-31799-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	7199	
LCS 440-71685/36	Lab Control Sample	Total/NA	Water	7199	
MB 440-71685/37	Method Blank	Total/NA	Water	7199	

Metals

Prep Batch: 151068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	7470A	
280-36711-20 MS	EB1-120612	Total/NA	Water	7470A	
280-36711-20 MSD	EB1-120612	Total/NA	Water	7470A	
280-36711-21	EB2-120612	Total/NA	Water	7470A	
LCS 280-151068/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-151068/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 151250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	3020A	
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	3020A	
280-36711-20	EB1-120612	Total/NA	Water	3020A	
280-36711-21	EB2-120612	Total/NA	Water	3020A	
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 280-151250/1-A	Method Blank	Total/NA	Water	3020A	

Prep Batch: 151251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36661-A-4-F MS	Matrix Spike	Total/NA	Water	3010A	
280-36661-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
280-36711-20	EB1-120612	Total/NA	Water	3010A	
280-36711-21	EB2-120612	Total/NA	Water	3010A	
LCS 280-151251/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-151251/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 151560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-20	EB1-120612	Total/NA	Water	7470A	151068
280-36711-20 MS	EB1-120612	Total/NA	Water	7470A	151068
280-36711-20 MSD	EB1-120612	Total/NA	Water	7470A	151068
280-36711-21	EB2-120612	Total/NA	Water	7470A	151068
LCS 280-151068/2-A	Lab Control Sample	Total/NA	Water	7470A	151068
MB 280-151068/1-A	Method Blank	Total/NA	Water	7470A	151068

Analysis Batch: 151722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36661-A-4-F MS	Matrix Spike	Total/NA	Water	6010C	151251
280-36661-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	151251
280-36711-20	EB1-120612	Total/NA	Water	6010C	151251

Metals (Continued)

Analysis Batch: 151722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36711-21	EB2-120612	Total/NA	Water	6010C	151251
LCS 280-151251/2-A	Lab Control Sample	Total/NA	Water	6010C	151251
MB 280-151251/1-A	Method Blank	Total/NA	Water	6010C	151251

Analysis Batch: 151741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	6020A	151250
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	151250
280-36711-20	EB1-120612	Total/NA	Water	6020A	151250
280-36711-21	EB2-120612	Total/NA	Water	6020A	151250
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	6020A	151250
MB 280-151250/1-A	Method Blank	Total/NA	Water	6020A	151250

Analysis Batch: 151968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36661-A-4-C MS	Matrix Spike	Total/NA	Water	6020A	151250
280-36661-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	151250
280-36711-20	EB1-120612	Total/NA	Water	6020A	151250
280-36711-21	EB2-120612	Total/NA	Water	6020A	151250
LCS 280-151250/2-A	Lab Control Sample	Total/NA	Water	6020A	151250
MB 280-151250/1-A	Method Blank	Total/NA	Water	6020A	151250

General Chemistry

Analysis Batch: 150967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36691-B-1 DU	Duplicate	Total/NA	Water	9040C	
280-36711-20	EB1-120612	Total/NA	Water	9040C	
280-36711-21	EB2-120612	Total/NA	Water	9040C	
LCS 280-150967/30	Lab Control Sample	Total/NA	Water	9040C	
LCS 280-150967/4	Lab Control Sample	Total/NA	Water	9040C	
LCSD 280-150967/31	Lab Control Sample Dup	Total/NA	Water	9040C	
LCSD 280-150967/5	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Client Sample ID: EB1-120612

Lab Sample ID: 280-36711-20

Date Collected: 12/06/12 15:00

Matrix: Water

Date Received: 12/07/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			934.1 mL	1000 uL	151495	12/11/12 08:17	AA	TAL DEN
Total/NA	Analysis	8270C SIM		1			152233	12/13/12 19:14	KGV	TAL DEN
Total/NA	Analysis	None		1			152588	12/17/12 14:49	JB	TAL DEN
Total/NA	Analysis	8015B		1	5 mL	5 mL	151153	12/07/12 21:10	TEM	TAL DEN
Total/NA	Prep	3510C			869.6 mL	10000 uL	151435	12/10/12 16:30	NC	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/13/12 01:37	TDJ	TAL DEN
Total/NA	Prep	3510C			976.5 mL	1000 uL	151564	12/11/12 10:47	AA	TAL DEN
Total/NA	Analysis	8015B		1			152487	12/13/12 00:18	MRB	TAL DEN
Total/NA	Analysis	7199		1	10 mL	1.0 mL	71685	12/07/12 11:17	QPD	TAL IRV
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	42263	12/08/12 10:46	CH	TAL NSH
Total/NA	Analysis	8315A		1			42479	12/09/12 00:16	HT	TAL NSH
Total/NA	Prep	7470A			30 mL	30 mL	151068	12/10/12 12:50	JM	TAL DEN
Total/NA	Analysis	7470A		1			151560	12/10/12 20:13	JM	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	151251	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151722	12/11/12 21:40	JKH	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	151250	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 20:52	LT	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 16:06	LT	TAL DEN
Total/NA	Analysis	9040C		1			150967	12/07/12 14:15	AK	TAL DEN

Client Sample ID: EB2-120612

Lab Sample ID: 280-36711-21

Date Collected: 12/06/12 15:30

Matrix: Water

Date Received: 12/07/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			923.4 mL	1000 uL	151495	12/11/12 08:17	AA	TAL DEN
Total/NA	Analysis	8270C SIM		1			152233	12/13/12 19:38	KGV	TAL DEN
Total/NA	Analysis	None		1			152588	12/17/12 14:49	JB	TAL DEN
Total/NA	Prep	3510C			970.8 mL	10000 uL	151435	12/10/12 16:30	NC	TAL DEN
Total/NA	Analysis	8082A		1			151797	12/13/12 01:59	TDJ	TAL DEN
Total/NA	Prep	3510C			936.4 mL	1000 uL	151814	12/12/12 14:08	KS	TAL DEN
Total/NA	Analysis	8015B		1			152579	12/15/12 03:19	MRB	TAL DEN
Total/NA	Analysis	7199		1	10 mL	1.0 mL	71685	12/07/12 11:31	QPD	TAL IRV
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	42263	12/08/12 10:46	CH	TAL NSH
Total/NA	Analysis	8315A		1			42479	12/09/12 00:42	HT	TAL NSH
Total/NA	Prep	7470A			30 mL	30 mL	151068	12/10/12 12:50	JM	TAL DEN
Total/NA	Analysis	7470A		1			151560	12/10/12 20:20	JM	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	151251	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6010C		1			151722	12/11/12 21:42	JKH	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	151250	12/11/12 08:15	RC	TAL DEN
Total/NA	Analysis	6020A		1			151741	12/11/12 20:56	LT	TAL DEN
Total/NA	Analysis	6020A		1			151968	12/12/12 16:10	LT	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-1

Client Sample ID: EB2-120612

Date Collected: 12/06/12 15:30
Date Received: 12/07/12 09:30

Lab Sample ID: 280-36711-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9040C		1			150967	12/07/12 14:18	AK	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

SSFL Phase 3 Chain of Custody

(W) 12712 IRL 3.0 3.6 2.8 3.2

CDM Smith

DateShipped: 12/6/2012

CarrierName: FedEx

AirbillNo: 794237343408

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121206-02

Cooler #: 1

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9040 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-618-SA6-SB-0.0-0.5MS	12/6/12 08:25	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-1018-SA6-SB-0.0-0.5	12/6/12 08:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-619-SA6-SB-0.0-0.5	12/6/12 07:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-520-SA6-SB-4.0-5.0	12/6/12 08:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-9.0-10.0	12/6/12 08:30	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-14.0-15.0	12/6/12 08:35	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-19.0-20.0	12/6/12 08:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-24.0-25.0	12/6/12 08:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-30.0-31.0	12/6/12 08:50	SO	None	1 - 4 oz glass	10 day									X																							
SL-612-SA6-SB-0.0-0.5	12/6/12 10:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-612-SA6-SB-2.0-3.0	12/6/12 10:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-620-SA6-SB-0.0-0.5	12/6/12 09:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-521-SA6-SB-0.0-0.5	12/6/12 11:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-521-SA6-SB-4.0-5.0	12/6/12 13:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-566-SA6-SB-0.0-0.5	12/6/12 12:55	SO	None	1 - SS-Sleeve	10 day									X																							
SL-567-SA6-SB-0.0-0.5	12/6/12 13:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-567-SA6-SB-2.0-3.0	12/6/12 13:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-516-SA6-SB-0.0-0.5	12/6/12 14:05	SO	None	1 - SS-Sleeve	10 day									X																							
SL-516-SA6-SB-3.0-4.0	12/6/12 14:20	SO	None	1 - 4 oz glass	10 day									X																							

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped:	12/6/2012	Contact Name:	Pam Hartman	COC No:	20121206-02
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1
AirbillNo:	794237343408			Lab:	TestAmerica - Denver
				Lab Phone:	303-736-0100
				Lab Address	4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/04/2012	1600	[signature]	12/7/12	930						

COC Rev 2

COC: 20121206-02, Page 2 of 2

2 of 2

Page 36 of 46

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237343408

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-03
Cooler #: 2,3,4
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB1-120612	12/6/12 15:00	WQ	None	6 - 1 L Amber	10 day							X			X										X												
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB1-120612	12/6/12 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													
EB2-120612	12/6/12 15:30	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB2-120612	12/6/12 15:30	WQ	None	6 - 1 L Amber	10 day							X			X										X												
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Poly	10 day														X																		
EB2-120612	12/6/12 15:30	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2012	1600	[illegible]	12/7/12	930						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012

CarrierName: FedEx

AirbillNo: 794237343408

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121206-03

Cooler #: 2,3,4

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB1-120612	12/6/12 15:00	WQ	None	6 - 1 L Amber	10 day							X			X											X											
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB1-120612	12/6/12 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
EB2-120612	12/6/12 15:30	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB2-120612	12/6/12 15:30	WQ	None	6 - 1 L Amber	10 day							X			X											X											
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Poly	10 day														X																		

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time		Relinquished by	Date	Time	Received by	Date	Time

250-36711

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237487167

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-05
Cooler #: 1
Lab: Test America Irvine
Lab Phone: 949-261-1022
Lab Address: 17461 Derian Avenue Irvine, CA 92614

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terpheonyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Poly	10 day															X																	
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Poly	10 day															X																	

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2012	1000	[illegible]	12/7/12	1030						

@ 4.9°C

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237435310

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-06
Cooler #: 1
Lab: Test America-Nashville
Lab Phone: 615-726-0177
Lab Address: 2960 Foster Creighton Drive Nashville, TN 37204

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Amber	10 day																												X				
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Amber	10 day																												X				

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2012	1600	[illegible] TAN	12/7/12	08:00	Temp 2.6					

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36711-1

Login Number: 36711

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Did not received VOA vials for EB2-120612
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36711-1

Login Number: 36711
List Number: 1
Creator: Freitag, Kevin R

List Source: TestAmerica Irvine
List Creation: 12/07/12 10:45 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36711-1

Login Number: 36711
List Number: 1
Creator: Himelick, John

List Source: TestAmerica Nashville
List Creation: 12/07/12 12:59 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Friday, December 07, 2012 12:21 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36711, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the nineteen soil samples and two equipment blanks received at the laboratories on 12/7/12.

The samples were received in acceptable condition at temperature of 3.1℃, 3.6℃, 2.8℃, 3.2℃ (Denver), 2.6℃ (Nashville), 4.9℃ (Irvine) and 3.2 ℃ (Knoxville).

RECEIPT DISCREPANCIES:

1.) Chain of Custody 20121206-03 requests TPH-GRO 8015 for sample EB2-120612 (280-36711-21); however, no 40mL VOA vials were received for this sample. As such, the requested Gasoline Range Organics analysis could not be logged for this sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36711-2 to accommodate the extended TAT required for dioxin analysis.

3.) TestAmerica's Denver laboratory subcontracted the 7199 Hexavalent Chromium analysis to TestAmerica's Irvine laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089041]
Attachments: 8

Uriell, Lisa

From: Mysel, Stefanie [MyselSJ@cdmsmith.com]
Sent: Friday, December 07, 2012 12:46 PM
To: Uriell, Lisa; Burgesser, Todd; Zakowski, Cherie
Cc: Eichelberger, Elizabeth; Hartman, Pamela
Subject: RE: Sample Login Confirmation for 280-36711, CDM - SSFL Area IV, Phase III

TA 120612 COC EB.pdf (69 KB)

Lisa,

In regards to the discrepancy for the delivery you just recieved, that sample doesn't exist. I included it on the COC by accident. Attached is a revised COC and I will also include a hard copy in today's shipment. Sorry for the discrepancy.

Regards,

Stefanie J. Mysel
Geologist

CDM Smith
100 Pringle Avenue
Suite 300
Walnut Creek, CA 94596

Main: 925-933-2900
Direct: 925-296-8081
Cell: 610-248-2430
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

_____
From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Friday, December 07, 2012 11:21 AM
To: Burgesser, Todd; Zakowski, Cherie
Cc: elizabeth.eichelberger@testamericainc.com; Hartman, Pamela; Mysel, Stefanie
Subject: Sample Login Confirmation for 280-36711, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the nineteen soil samples and two equipment blanks received at the laboratories on 12/7/12.

The samples were received in acceptable condition at temperature of 3.1°C, 3.6°C, 2.8°C, 3.2°C (Denver), 2.6°C (Nashville), 4.9°C (Irvine) and 3.2°C (Knoxville).

RECEIPT DISCREPANCIES:

1.) Chain of Custody 20121206-03 requests TPH-GRO 8015 for sample EB2-120612 (280-36711-21); however, no 40mL VOA vials were received for this sample. As such, the requested Gasoline Range Organics analysis could not be logged for this sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36711-2 to accommodate the extended TAT required for dioxin analysis.

3.) TestAmerica's Denver laboratory subcontracted the 7199 Hexavalent Chromium analysis to TestAmerica's Irvine laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback<https://secure.testamericainc.com/snaponline/surveylogin.asp?k=121632876991>

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com<http://www.testamericainc.com>

Reference: [089041]
Attachments: 8

SAMPLE DELIVERY GROUP

280-36711-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36711-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/7/2013 12:53:24 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 10
Sample Summary 11
Chronicle 12
Subcontract Data 17
Chain of Custody 87
Receipt Checklists 93

Job ID: 280-36711-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36711-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Nineteen soil samples and two Equipment Blanks were received under Chain of Custody on December 7, 2012. The samples were received in good condition at temperatures of 3.1°C, 3.6°C, 2.8°C, 3.2°C (Denver) and 3.2°C (Knoxville).

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36711-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
S	Ion suppression.
a	Spiked analyte recovery is outside stated control limits.
p	Relative percent difference (RPD) is outside stated control limits.
*	Surrogate recovery is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-618-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36711-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.15	Q J	5.6	0.061	0.5	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.25	Q B J	5.6	0.048	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.55	J	5.6	0.048	0.1	0.055	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.53	C B J	5.6	0.045	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	10	B	5.6	0.042	0.01	0.10	ng/kg	1	☼	1613B	Total
OCDD	80	B	11	0.060	0.001	0.080	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.10	Q J	1.1	0.064	0.1	0.010	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.16	B J	5.6	0.050	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.18	C B J	5.6	0.028	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.16	Q J	5.6	0.027	0.1	0.016	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.13	B J	5.6	0.027	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.6	B J	5.6	0.044	0.01	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.37	Q B J	5.6	0.077	0.01	0.0037	ng/kg	1	☼	1613B	Total
OCDF	3.9	B J	11	0.058	0.001	0.0039	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-1018-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.14	Q J	5.8	0.071	0.5	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.19	B J	5.8	0.060	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.59	J	5.8	0.062	0.1	0.059	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.51	C B J	5.8	0.057	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.5	B	5.8	0.066	0.01	0.095	ng/kg	1	☼	1613B	Total
OCDD	73	B	12	0.088	0.001	0.073	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.23	J	1.2	0.068	0.1	0.023	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.15	B J	5.8	0.048	0.5	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.20	Q B J	5.8	0.034	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.20	Q J	5.8	0.031	0.1	0.020	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.11	Q B J	5.8	0.031	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.064	Q B J	5.8	0.039	0.1	0.0064	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.3	Q B J	5.8	0.046	0.01	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.55	B J	5.8	0.078	0.01	0.0055	ng/kg	1	☼	1613B	Total
OCDF	4.4	Q B J	12	0.071	0.001	0.0044	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-619-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.30	Q J	5.4	0.072	0.5	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.66	B J	5.4	0.046	0.1	0.066	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.9	J	5.4	0.046	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.7	C B J	5.4	0.044	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	37	B	5.4	0.055	0.01	0.37	ng/kg	1	☼	1613B	Total
OCDD	270	B	11	0.093	0.001	0.27	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.25	Q J	1.1	0.082	0.1	0.025	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.16	Q B J	5.4	0.054	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.63	C B J	5.4	0.043	0.1	0.063	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.39	J	5.4	0.042	0.1	0.039	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.20	Q B J	5.4	0.042	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.071	Q B J	5.4	0.052	0.1	0.0071	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	7.1	B	5.4	0.055	0.01	0.071	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.2	Q B J	5.4	0.095	0.01	0.012	ng/kg	1	☼	1613B	Total
OCDF	9.9	B J	11	0.061	0.001	0.0099	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-520-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36711-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.32	J	5.4	0.046	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.28	C B J	5.4	0.044	0.1	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.9	B	5.4	0.056	0.01	0.099	ng/kg	1	☼	1613B	Total
OCDD	100	B	11	0.059	0.001	0.10	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.048	J	1.1	0.077	0.1	0.0048	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.072	Q B J	5.4	0.032	0.1	0.0072	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.071	J	5.4	0.031	0.1	0.0071	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.8	B J	5.4	0.037	0.01	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.22	B J	5.4	0.056	0.01	0.0022	ng/kg	1	☼	1613B	Total
OCDF	3.5	B J	11	0.049	0.001	0.0035	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36711-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.13	B J	5.7	0.027	0.01	0.0013	ng/kg	1	☼	1613B	Total
OCDD	0.42	B J	11	0.038	0.001	0.00042	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.071	Q B J	5.7	0.027	0.01	0.00071	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.036	Q B J	5.7	0.039	0.01	0.00036	ng/kg	1	☼	1613B	Total
OCDF	0.083	Q B J	11	0.034	0.001	0.000083	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36711-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.11	B J	5.4	0.030	0.01	0.0011	ng/kg	1	☼	1613B	Total
OCDD	1.2	B J	11	0.032	0.001	0.0012	ng/kg	1	☼	1613B	Total
OCDF	0.036	Q B J	11	0.028	0.001	0.000036	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-19.0-20.0 — Lab Sample ID: 280-36711-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	0.62	B J	11	0.049	0.001	0.00062	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-24.0-25.0 — Lab Sample ID: 280-36711-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.056	Q B J	5.6	0.032	0.01	0.00056	ng/kg	1	☼	1613B	Total
OCDD	0.53	B J	11	0.045	0.001	0.00053	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-520-SA6-SB-30.0-31.0 — Lab Sample ID: 280-36711-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.063	Q J	1.1	0.057	1	0.063	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.084	Q J	5.6	0.045	0.5	0.042	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.019	Q B J	5.6	0.023	0.1	0.0019	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.089	J	5.6	0.023	0.1	0.0089	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.12	Q B J	5.6	0.021	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1.0	B J	5.6	0.024	0.01	0.010	ng/kg	1	☼	1613B	Total
OCDD	8.7	B J	11	0.032	0.001	0.0087	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.016	Q B J	5.6	0.015	0.1	0.0016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.17	B J	5.6	0.018	0.01	0.0017	ng/kg	1	☼	1613B	Total
OCDF	0.22	B J	11	0.024	0.001	0.00022	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-612-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.18	Q J	5.7	0.085	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.16	Q B J	5.7	0.034	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.61	J	5.7	0.036	0.1	0.061	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.79	B J	5.7	0.033	0.1	0.079	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	12	B	5.7	0.066	0.01	0.12	ng/kg	1	☼	1613B	Total
OCDD	140	B	11	0.060	0.001	0.14	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.21	J	1.1	0.074	0.1	0.021	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.14	B J	5.7	0.058	0.5	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.13	Q B J	5.7	0.036	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.11	Q J	5.7	0.035	0.1	0.011	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.19	Q B J	5.7	0.030	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.36	Q B J	5.7	0.037	0.1	0.036	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.6	Q B J	5.7	0.039	0.01	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.26	Q B J	5.7	0.064	0.01	0.0026	ng/kg	1	☼	1613B	Total
OCDF	4.3	B J	11	0.045	0.001	0.0043	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-612-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36711-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.10	J	5.3	0.030	0.1	0.010	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.092	Q B J	5.3	0.028	0.1	0.0092	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1.1	B J	5.3	0.027	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDD	12	B	11	0.034	0.001	0.012	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.031	J	1.1	0.046	0.1	0.0031	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.070	Q B J	5.3	0.021	0.1	0.0070	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.21	Q B J	5.3	0.030	0.01	0.0021	ng/kg	1	☼	1613B	Total
OCDF	0.41	B J	11	0.029	0.001	0.00041	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-620-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.16	Q J	5.6	0.054	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.15	Q B J	5.6	0.034	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.40	Q J	5.6	0.034	0.1	0.040	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.46	C B J	5.6	0.032	0.1	0.046	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	8.3	B	5.6	0.041	0.01	0.083	ng/kg	1	☼	1613B	Total
OCDD	78	B	11	0.047	0.001	0.078	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.20	Q J	1.1	0.052	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.048	J	5.6	0.044	0.05	0.0024	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.11	Q B J	5.6	0.041	0.5	0.055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.13	Q B J	5.6	0.026	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.091	Q J	5.6	0.027	0.1	0.0091	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.19	B J	5.6	0.023	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.1	B J	5.6	0.030	0.01	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.22	Q B J	5.6	0.049	0.01	0.0022	ng/kg	1	☼	1613B	Total
OCDF	4.0	B J	11	0.038	0.001	0.0040	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-521-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.060	Q J	5.2	0.044	0.1	0.0060	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.068	B J	5.2	0.040	0.1	0.0068	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-521-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36711-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.40	Q B J	5.2	0.040	0.01	0.0040	ng/kg	1	☼	1613B	Total
OCDD	4.1	B J	10	0.046	0.001	0.0041	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.12	Q B J	5.2	0.032	0.01	0.0012	ng/kg	1	☼	1613B	Total
OCDF	0.14	Q B J	10	0.041	0.001	0.00014	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-521-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36711-14

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	0.30	Q B J	11	0.034	0.001	0.00030	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-566-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-15

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.13	Q J	1.1	0.11	1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.28	Q J	5.5	0.083	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.40	Q B J	5.5	0.051	0.1	0.040	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.2	J	5.5	0.053	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.3	C B J	5.5	0.049	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	34	B	5.5	0.073	0.01	0.34	ng/kg	1	☼	1613B	Total
OCDD	290	B	11	0.070	0.001	0.29	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.71	Q J	1.1	0.087	0.1	0.071	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.16	Q J	5.5	0.065	0.05	0.0080	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.30	Q B J	5.5	0.058	0.5	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.50	B J	5.5	0.036	0.1	0.050	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.30	J	5.5	0.038	0.1	0.030	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	Q B J	5.5	0.033	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.5	S B	5.5	0.062	0.01	0.055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.66	B J	5.5	0.088	0.01	0.0066	ng/kg	1	☼	1613B	Total
OCDF	4.8	B J	11	0.056	0.001	0.0048	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-567-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.3	Q	1.1	0.065	1	1.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.17	Q J	5.6	0.054	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.38	B J	5.6	0.037	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.1	J	5.6	0.037	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	C B J	5.6	0.035	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	29	B	5.6	0.048	0.01	0.29	ng/kg	1	☼	1613B	Total
OCDD	260	B	11	0.047	0.001	0.26	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.29	Q J	1.1	0.047	0.1	0.029	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.12	J	5.6	0.042	0.05	0.0060	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.17	Q B J	5.6	0.038	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.35	C B J	5.6	0.023	0.1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.25	J	5.6	0.023	0.1	0.025	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q B J	5.6	0.020	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.068	Q B J	5.6	0.024	0.1	0.0068	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	7.0	S B	5.6	0.10	0.01	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.76	Q B J	5.6	0.065	0.01	0.0076	ng/kg	1	☼	1613B	Total
OCDF	11	B J	11	0.039	0.001	0.011	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-567-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36711-17

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.17	Q J	1.1	0.068	1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.074	Q B J	5.3	0.025	0.1	0.0074	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.14	Q J	5.3	0.028	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.17	B J	5.3	0.025	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	3.2	B J	5.3	0.032	0.01	0.032	ng/kg	1	☼	1613B	Total
OCDD	37	B	11	0.041	0.001	0.037	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.039	Q J	1.1	0.042	0.1	0.0039	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.035	Q B J	5.3	0.031	0.5	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.053	B J	5.3	0.020	0.1	0.0053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.95	B J	5.3	0.031	0.01	0.0095	ng/kg	1	☼	1613B	Total
OCDF	2.1	B J	11	0.028	0.001	0.0021	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-516-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-18

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.094	Q J	5.7	0.082	0.5	0.047	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.10	B J	5.7	0.058	0.1	0.010	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.38	Q J	5.7	0.061	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.095	Q B J	5.7	0.056	0.1	0.0095	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	15	B	5.7	0.14	0.01	0.15	ng/kg	1	☼	1613B	Total
OCDD	120	B	11	0.16	0.001	0.12	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.038	Q J	1.1	0.068	0.1	0.0038	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.067	B J	5.7	0.045	0.1	0.0067	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.092	Q J	5.7	0.044	0.1	0.0092	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.047	Q B J	5.7	0.040	0.1	0.0047	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.0	Q B J	5.7	0.077	0.01	0.010	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.067	Q B J	5.7	0.094	0.01	0.00067	ng/kg	1	☼	1613B	Total
OCDF	2.5	S B J	11	0.063	0.001	0.0025	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-516-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36711-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.13	B J	6.2	0.067	0.01	0.0013	ng/kg	1	☼	1613B	Total
OCDD	0.82	B J	12	0.092	0.001	0.00082	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.067	Q B J	6.2	0.056	0.01	0.00067	ng/kg	1	☼	1613B	Total
OCDF	0.21	Q B J	12	0.079	0.001	0.00021	ng/kg	1	☼	1613B	Total

Client Sample ID: EB1-120612 — Lab Sample ID: 280-36711-20

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.52	Q B J	48	0.37	0.01	0.0052	pg/L	1		1613B	Total
OCDD	4.0	B J	96	0.52	0.001	0.0040	pg/L	1		1613B	Total

Client Sample ID: EB2-120612 — Lab Sample ID: 280-36711-21

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	3.0	B J	95	0.71	0.001	0.0030	pg/L	1		1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36711-1	SL-618-SA6-SB-0.0-0.5MS	Solid	12/06/12 08:25	12/07/12 09:30
280-36711-2	SL-1018-SA6-SB-0.0-0.5	Solid	12/06/12 08:30	12/07/12 09:30
280-36711-3	SL-619-SA6-SB-0.0-0.5	Solid	12/06/12 07:45	12/07/12 09:30
280-36711-4	SL-520-SA6-SB-4.0-5.0	Solid	12/06/12 08:20	12/07/12 09:30
280-36711-5	SL-520-SA6-SB-9.0-10.0	Solid	12/06/12 08:30	12/07/12 09:30
280-36711-6	SL-520-SA6-SB-14.0-15.0	Solid	12/06/12 08:35	12/07/12 09:30
280-36711-7	SL-520-SA6-SB-19.0-20.0	Solid	12/06/12 08:40	12/07/12 09:30
280-36711-8	SL-520-SA6-SB-24.0-25.0	Solid	12/06/12 08:45	12/07/12 09:30
280-36711-9	SL-520-SA6-SB-30.0-31.0	Solid	12/06/12 08:50	12/07/12 09:30
280-36711-10	SL-612-SA6-SB-0.0-0.5	Solid	12/06/12 10:10	12/07/12 09:30
280-36711-11	SL-612-SA6-SB-2.0-3.0	Solid	12/06/12 10:30	12/07/12 09:30
280-36711-12	SL-620-SA6-SB-0.0-0.5	Solid	12/06/12 09:40	12/07/12 09:30
280-36711-13	SL-521-SA6-SB-0.0-0.5	Solid	12/06/12 11:00	12/07/12 09:30
280-36711-14	SL-521-SA6-SB-4.0-5.0	Solid	12/06/12 13:10	12/07/12 09:30
280-36711-15	SL-566-SA6-SB-0.0-0.5	Solid	12/06/12 12:55	12/07/12 09:30
280-36711-16	SL-567-SA6-SB-0.0-0.5	Solid	12/06/12 13:30	12/07/12 09:30
280-36711-17	SL-567-SA6-SB-2.0-3.0	Solid	12/06/12 13:45	12/07/12 09:30
280-36711-18	SL-516-SA6-SB-0.0-0.5	Solid	12/06/12 14:05	12/07/12 09:30
280-36711-19	SL-516-SA6-SB-3.0-4.0	Solid	12/06/12 14:20	12/07/12 09:30
280-36711-20	EB1-120612	Water	12/06/12 15:00	12/07/12 09:30
280-36711-21	EB2-120612	Water	12/06/12 15:30	12/07/12 09:30

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-618-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36711-1

Date Collected: 12/06/12 08:25 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/02/13 17:54	KBL	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2347013	12/12/12 09:26	TN	TAL KNX

Client Sample ID: SL-1018-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-2

Date Collected: 12/06/12 08:30 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/02/13 15:52	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:27	TN	TAL KNX

Client Sample ID: SL-619-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-3

Date Collected: 12/06/12 07:45 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/02/13 16:53	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:27	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36711-4

Date Collected: 12/06/12 08:20 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 03:49	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:27	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36711-5

Date Collected: 12/06/12 08:30 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 11:44	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:28	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-520-SA6-SB-14.0-15.0 — Lab Sample ID: 280-36711-6

Date Collected: 12/06/12 08:35 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 05:49	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:28	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-19.0-20.0 — Lab Sample ID: 280-36711-7

Date Collected: 12/06/12 08:40 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 06:48	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:28	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-24.0-25.0 — Lab Sample ID: 280-36711-8

Date Collected: 12/06/12 08:45 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 07:49	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:28	TN	TAL KNX

Client Sample ID: SL-520-SA6-SB-30.0-31.0 — Lab Sample ID: 280-36711-9

Date Collected: 12/06/12 08:50 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 12:45	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:29	TN	TAL KNX

Client Sample ID: SL-612-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-10

Date Collected: 12/06/12 10:10 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 13:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:29	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-612-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36711-11

Date Collected: 12/06/12 10:30 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 94.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 14:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:29	TN	TAL KNX

Client Sample ID: SL-620-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-12

Date Collected: 12/06/12 09:40 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 15:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:29	TN	TAL KNX

Client Sample ID: SL-521-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-13

Date Collected: 12/06/12 11:00 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 95.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 16:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:30	TN	TAL KNX

Client Sample ID: SL-521-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36711-14

Date Collected: 12/06/12 13:10 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 96.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 17:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:30	TN	TAL KNX

Client Sample ID: SL-566-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36711-15

Date Collected: 12/06/12 12:55 — **Matrix: Solid**
Date Received: 12/07/12 09:30 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 18:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:30	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: SL-567-SA6-SB-0.0-0.5

Lab Sample ID: 280-36711-16
Date Collected: 12/06/12 13:30
Matrix: Solid
Date Received: 12/07/12 09:30
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/03/13 19:43	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:31	TN	TAL KNX

Client Sample ID: SL-567-SA6-SB-2.0-3.0

Lab Sample ID: 280-36711-17
Date Collected: 12/06/12 13:45
Matrix: Solid
Date Received: 12/07/12 09:30
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/04/13 06:14	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:31	TN	TAL KNX

Client Sample ID: SL-516-SA6-SB-0.0-0.5

Lab Sample ID: 280-36711-18
Date Collected: 12/06/12 14:05
Matrix: Solid
Date Received: 12/07/12 09:30
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.6 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/04/13 07:14	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:31	TN	TAL KNX

Client Sample ID: SL-516-SA6-SB-3.0-4.0

Lab Sample ID: 280-36711-19
Date Collected: 12/06/12 14:20
Matrix: Solid
Date Received: 12/07/12 09:30
Percent Solids: 83

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2347020_P	12/12/12 10:00		TAL KNX
Total	Analysis	1613B		1			2347020	01/04/13 08:14	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2347013	12/12/12 09:31	TN	TAL KNX

Client Sample ID: EB1-120612

Lab Sample ID: 280-36711-20
Date Collected: 12/06/12 15:00
Matrix: Water
Date Received: 12/07/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			1045 mL	20 uL	2354018_P	12/18/12 16:00		TAL KNX
Total	Analysis	1613B		1			2354018	12/26/12 14:42	MAD	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36711-2

Client Sample ID: EB2-120612

Lab Sample ID: 280-36711-21

Date Collected: 12/06/12 15:30
Date Received: 12/07/12 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			1050 mL	20 uL	2354018_P	12/18/12 16:00		TAL KNX
Total	Analysis	1613B		1			2354018	12/26/12 15:41	MAD	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L110413 Analytical Report 1

Sample Receipt Documentation 63

Total Number of Pages 69

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36711-2

CDM - SSFL Area IV

Lot #: H2L110413

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 7, 2013

ANALYTICAL METHODS SUMMARY

H2L110413

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L110413

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXJTA	001	SL-618-SA6-SB-0.0-0.5MS	12/06/12	08:25
MXJTC	002	SL-1018-SA6-SB-0.0-0.5	12/06/12	08:30
MXJTD	003	SL-619-SA6-SB-0.0-0.5	12/06/12	07:45
MXJTE	004	SL-520-SA6-SB-4.0-5.0	12/06/12	08:20
MXJTF	005	SL-520-SA6-SB-9.0-10.0	12/06/12	08:30
MXJTG	006	SL-520-SA6-SB-14.0-15.0	12/06/12	08:35
MXJTH	007	SL-520-SA6-SB-19.0-20.0	12/06/12	08:40
MXJTJ	008	SL-520-SA6-SB-24.0-25.0	12/06/12	08:45
MXJTK	009	SL-520-SA6-SB-30.0-31.0	12/06/12	08:50
MXJTL	010	SL-612-SA6-SB-0.0-0.5	12/06/12	10:10
MXJTN	011	SL-612-SA6-SB-2.0-3.0	12/06/12	10:30
MXJTP	012	SL-620-SA6-SB-0.0-0.5	12/06/12	09:40
MXJTQ	013	SL-521-SA6-SB-0.0-0.5	12/06/12	11:00
MXJTR	014	SL-521-SA6-SB-4.0-5.0	12/06/12	13:10
MXJTT	015	SL-566-SA6-SB-0.0-0.5	12/06/12	12:55
MXJTV	016	SL-567-SA6-SB-0.0-0.5	12/06/12	13:30
MXJTW	017	SL-567-SA6-SB-2.0-3.0	12/06/12	13:45
MXJTX	018	SL-516-SA6-SB-0.0-0.5	12/06/12	14:05
MXJT0	019	SL-516-SA6-SB-3.0-4.0	12/06/12	14:20
MXJT1	020	EB1-120612	12/06/12	15:00
MXJT3	021	EB2-120612	12/06/12	15:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L110413

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For sample SL-567-SA6-SB-0.0-0.5, the recovery of internal standard 13C-1,2,3,4,6,7,8-HpCDF was below the lower control limit of 28%. The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met.

For the matrix spike/matrix spike duplicate of sample SL-618-SA6-SB-0.0-0.5MS, the recovery of OCDF was below the lower control limit of 63%. Additionally, the relative percent difference for OCDF was above the control limit of 25%.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

PROJECT NARRATIVE
H2L110413

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

PROJECT NARRATIVE
H2L110413

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

PROJECT NARRATIVE
H2L110413

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-618-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 001	**Work Order #....:**	MXJTA1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	10
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.10	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.15 Q J**	**5.6**	**0.061**	**1.0**	**0.15**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**0.25 Q B J**	**5.6**	**0.048**	**0.1**	**0.025**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**0.55 J**	**5.6**	**0.048**	**0.1**	**0.055**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**0.53**	**5.6**	**0.045**	**0.1**	**0.053**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**10 B**	**5.6**	**0.042**	**0.01**	**0.10**
OCDD	**1/2/13**	**1**	**80 B**	**11**	**0.060**	**0.0003**	**0.024**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.10 Q J**	**1.1**	**0.064**	**0.1**	**0.010**
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.6	0.056	0.03	0
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.16 B J**	**5.6**	**0.050**	**0.3**	**0.048**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.18**	**5.6**	**0.028**	**0.1**	**0.018**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.16 Q J**	**5.6**	**0.027**	**0.1**	**0.016**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.13 B J**	**5.6**	**0.027**	**0.1**	**0.013**
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.6	0.034	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**2.6 B J**	**5.6**	**0.044**	**0.01**	**0.026**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**0.37 Q B J**	**5.6**	**0.077**	**0.01**	**0.0037**
OCDF	**1/2/13**	**1**	**3.9 B J**	**11**	**0.058**	**0.0003**	**0.0012**
Total TEQ Concentration							**0.54**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
13C-1,2,3,7,8-PeCDD	112	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	101	(23 - 140)
13C-OCDD	84	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	112	(24 - 185)
13C-2,3,4,7,8-PeCDF	103	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-618-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-1018-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 002	**Work Order #....:**	MXJTC1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	11
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.2	0.096	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.14 Q J**	**5.8**	**0.071**	**1.0**	**0.14**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**0.19 B J**	**5.8**	**0.060**	**0.1**	**0.019**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**0.59 J**	**5.8**	**0.062**	**0.1**	**0.059**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**0.51**	**5.8**	**0.057**	**0.1**	**0.051**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**9.5 B**	**5.8**	**0.066**	**0.01**	**0.095**
OCDD	**1/2/13**	**1**	**73 B**	**12**	**0.088**	**0.0003**	**0.022**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.23 J**	**1.2**	**0.068**	**0.1**	**0.023**
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.8	0.056	0.03	0
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.15 B J**	**5.8**	**0.048**	**0.3**	**0.045**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.20 Q B J**	**5.8**	**0.034**	**0.1**	**0.020**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.20 Q J**	**5.8**	**0.031**	**0.1**	**0.020**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.11 Q B J**	**5.8**	**0.031**	**0.1**	**0.011**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.064 Q B J**	**5.8**	**0.039**	**0.1**	**0.0064**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**2.3 Q B J**	**5.8**	**0.046**	**0.01**	**0.023**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**0.55 B J**	**5.8**	**0.078**	**0.01**	**0.0055**
OCDF	**1/2/13**	**1**	**4.4 Q B J**	**12**	**0.071**	**0.0003**	**0.0013**
Total TEQ Concentration							**0.54**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
13C-1,2,3,7,8-PeCDD	109	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	106	(23 - 140)
13C-OCDD	84	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	110	(24 - 185)
13C-2,3,4,7,8-PeCDF	105	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	86	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	82	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-1018-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-619-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 003	**Work Order #....:**	MXJTD1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	9.4
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.12	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.30 Q J**	**5.4**	**0.072**	**1.0**	**0.30**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**0.66 B J**	**5.4**	**0.046**	**0.1**	**0.066**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**1.9 J**	**5.4**	**0.046**	**0.1**	**0.19**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**1.7**	**5.4**	**0.044**	**0.1**	**0.17**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**37 B**	**5.4**	**0.055**	**0.01**	**0.37**
OCDD	**1/2/13**	**1**	**270 B**	**11**	**0.093**	**0.0003**	**0.081**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.25 Q J**	**1.1**	**0.082**	**0.1**	**0.025**
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.4	0.063	0.03	0
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.16 Q B J**	**5.4**	**0.054**	**0.3**	**0.048**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.63**	**5.4**	**0.043**	**0.1**	**0.063**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.39 J**	**5.4**	**0.042**	**0.1**	**0.039**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.20 Q B J**	**5.4**	**0.042**	**0.1**	**0.020**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.071 Q B J**	**5.4**	**0.052**	**0.1**	**0.0071**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**7.1 B**	**5.4**	**0.055**	**0.01**	**0.071**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**1.2 Q B J**	**5.4**	**0.095**	**0.01**	**0.012**
OCDF	**1/2/13**	**1**	**9.9 B J**	**11**	**0.061**	**0.0003**	**0.0030**
Total TEQ Concentration							**1.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	110	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	104	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	107	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-619-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 004	**Work Order #....:**	MXJTE1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	8.4
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.12	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.4	0.081	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.4	0.047	0.1	0
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.32 J**	**5.4**	**0.046**	**0.1**	**0.032**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.28**	**5.4**	**0.044**	**0.1**	**0.028**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**9.9 B**	**5.4**	**0.056**	**0.01**	**0.099**
OCDD	**1/3/13**	**1**	**100 B**	**11**	**0.059**	**0.0003**	**0.030**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.048 J**	**1.1**	**0.077**	**0.1**	**0.0048**
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.4	0.056	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.4	0.050	0.3	0
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.072 Q B J**	**5.4**	**0.032**	**0.1**	**0.0072**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.071 J**	**5.4**	**0.031**	**0.1**	**0.0071**
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.4	0.032	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.4	0.036	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**1.8 B J**	**5.4**	**0.037**	**0.01**	**0.018**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.22 B J**	**5.4**	**0.056**	**0.01**	**0.0022**
OCDF	**1/3/13**	**1**	**3.5 B J**	**11**	**0.049**	**0.0003**	**0.0010**
Total TEQ Concentration							**0.23**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	91	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	100	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	81	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 005	**Work Order #....:**	MXJTF1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	10
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.084	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.7	0.054	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.7	0.033	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.7	0.032	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.7	0.031	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**0.13 B J**	**5.7**	**0.027**	**0.01**	**0.0013**
OCDD	**1/3/13**	**1**	**0.42 B J**	**11**	**0.038**	**0.0003**	**0.00013**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.056	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.7	0.040	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.7	0.038	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.7	0.022	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.7	0.023	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.7	0.021	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.7	0.025	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**0.071 Q B J**	**5.7**	**0.027**	**0.01**	**0.00071**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.036 Q B J**	**5.7**	**0.039**	**0.01**	**0.00036**
OCDF	**1/3/13**	**1**	**0.083 Q B J**	**11**	**0.034**	**0.0003**	**0.000025**
Total TEQ Concentration							**0.0025**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	101	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	91	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	102	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	70	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	79	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-14.0-15.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 006	**Work Order #....:**	MXJTG1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	9.5
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.088	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.4	0.060	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.4	0.033	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.4	0.033	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.4	0.031	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**0.11 B J**	**5.4**	**0.030**	**0.01**	**0.0011**
OCDD	**1/3/13**	**1**	**1.2 B J**	**11**	**0.032**	**0.0003**	**0.00036**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.055	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.4	0.039	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.4	0.037	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.4	0.019	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.4	0.019	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.4	0.019	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.4	0.023	0.1	0
1,2,3,4,6,7,8-HpCDF	1/3/13	1	ND	5.4	0.025	0.01	0
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.4	0.037	0.01	0
OCDF	**1/3/13**	**1**	**0.036 Q B J**	**11**	**0.028**	**0.0003**	**0.000011**
Total TEQ Concentration							**0.0015**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	104	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	88	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	112	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-14.0-15.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-19.0-20.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 007	**Work Order #....:**	MXJTH1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	11
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.10	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.3	0.056	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.3	0.031	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.3	0.032	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.3	0.030	0.1	0
1,2,3,4,6,7,8-HpCDD	1/3/13	1	ND	5.3	0.031	0.01	0
OCDD	**1/3/13**	**1**	**0.62 B J**	**11**	**0.049**	**0.0003**	**0.00019**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.061	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.3	0.047	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.3	0.043	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.3	0.020	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.020	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.019	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.3	0.024	0.1	0
1,2,3,4,6,7,8-HpCDF	1/3/13	1	ND	5.3	0.031	0.01	0
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.3	0.042	0.01	0
OCDF	1/3/13	1	ND	11	0.036	0.0003	0
Total TEQ Concentration							**0.00019**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	108	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	91	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	110	(24 - 185)
13C-2,3,4,7,8-PeCDF	103	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	84	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-19.0-20.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated Result.

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-24.0-25.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 008	**Work Order #....:**	MXJTJ1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	13
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.092	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.6	0.052	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.6	0.031	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.6	0.030	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.6	0.029	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**0.056 Q B J**	**5.6**	**0.032**	**0.01**	**0.00056**
OCDD	**1/3/13**	**1**	**0.53 B J**	**11**	**0.045**	**0.0003**	**0.00016**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.056	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.6	0.045	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.6	0.041	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.6	0.019	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.6	0.020	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.6	0.019	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.6	0.022	0.1	0
1,2,3,4,6,7,8-HpCDF	1/3/13	1	ND	5.6	0.028	0.01	0
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.6	0.037	0.01	0
OCDF	1/3/13	1	ND	11	0.037	0.0003	0
Total TEQ Concentration							**0.00072**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	101	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	102	(24 - 185)
13C-2,3,4,7,8-PeCDF	98	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-24.0-25.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-30.0-31.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 009	**Work Order #....:**	MXJTK1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	13
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/3/13**	**1**	**0.063 Q J**	**1.1**	**0.057**	**1.0**	**0.063**
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.084 Q J**	**5.6**	**0.045**	**1.0**	**0.084**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.019 Q B J**	**5.6**	**0.023**	**0.1**	**0.0019**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.089 J**	**5.6**	**0.023**	**0.1**	**0.0089**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.12 Q B J**	**5.6**	**0.021**	**0.1**	**0.012**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**1.0 B J**	**5.6**	**0.024**	**0.01**	**0.010**
OCDD	**1/3/13**	**1**	**8.7 B J**	**11**	**0.032**	**0.0003**	**0.0026**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.038	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.6	0.029	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.6	0.027	0.3	0
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.016 Q B J**	**5.6**	**0.015**	**0.1**	**0.0016**
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.6	0.016	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.6	0.016	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.6	0.018	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**0.17 B J**	**5.6**	**0.018**	**0.01**	**0.0017**
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.6	0.027	0.01	0
OCDF	**1/3/13**	**1**	**0.22 B J**	**11**	**0.024**	**0.0003**	**0.000066**
Total TEQ Concentration							**0.19**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	(25 - 164)
13C-1,2,3,7,8-PeCDD	105	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	90	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	104	(24 - 185)
13C-2,3,4,7,8-PeCDF	95	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	76	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-520-SA6-SB-30.0-31.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-612-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 010	**Work Order #....:**	MXJTL1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	12
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.18 Q J**	**5.7**	**0.085**	**1.0**	**0.18**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.16 Q B J**	**5.7**	**0.034**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.61 J**	**5.7**	**0.036**	**0.1**	**0.061**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.79 B J**	**5.7**	**0.033**	**0.1**	**0.079**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**12 B**	**5.7**	**0.066**	**0.01**	**0.12**
OCDD	**1/3/13**	**1**	**140 B**	**11**	**0.060**	**0.0003**	**0.042**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.21 J**	**1.1**	**0.074**	**0.1**	**0.021**
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.7	0.068	0.03	0
2,3,4,7,8-PeCDF	**1/3/13**	**1**	**0.14 B J**	**5.7**	**0.058**	**0.3**	**0.042**
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.13 Q B J**	**5.7**	**0.036**	**0.1**	**0.013**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.11 Q J**	**5.7**	**0.035**	**0.1**	**0.011**
2,3,4,6,7,8-HxCDF	**1/3/13**	**1**	**0.19 Q B J**	**5.7**	**0.030**	**0.1**	**0.019**
1,2,3,7,8,9-HxCDF	**1/3/13**	**1**	**0.36 Q B J**	**5.7**	**0.037**	**0.1**	**0.036**
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**2.6 Q B J**	**5.7**	**0.039**	**0.01**	**0.026**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.26 Q B J**	**5.7**	**0.064**	**0.01**	**0.0026**
OCDF	**1/3/13**	**1**	**4.3 B J**	**11**	**0.045**	**0.0003**	**0.0013**
Total TEQ Concentration							**0.67**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	(25 - 164)
13C-1,2,3,7,8-PeCDD	108	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	90	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	104	(24 - 185)
13C-2,3,4,7,8-PeCDF	103	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-612-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-612-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 011	**Work Order #....:**	MXJTN1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	5.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.074	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.3	0.046	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.3	0.030	0.1	0
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.10 J**	**5.3**	**0.030**	**0.1**	**0.010**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.092 Q B J**	**5.3**	**0.028**	**0.1**	**0.0092**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**1.1 B J**	**5.3**	**0.027**	**0.01**	**0.011**
OCDD	**1/3/13**	**1**	**12 B**	**11**	**0.034**	**0.0003**	**0.0036**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.031 J**	**1.1**	**0.046**	**0.1**	**0.0031**
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.3	0.035	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.3	0.033	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.3	0.020	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.021	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.018	0.1	0
1,2,3,7,8,9-HxCDF	**1/3/13**	**1**	**0.070 Q B J**	**5.3**	**0.021**	**0.1**	**0.0070**
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**0.21 Q B J**	**5.3**	**0.030**	**0.01**	**0.0021**
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.3	0.045	0.01	0
OCDF	**1/3/13**	**1**	**0.41 B J**	**11**	**0.029**	**0.0003**	**0.00012**
Total TEQ Concentration							**0.046**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(25 - 164)
13C-1,2,3,7,8-PeCDD	100	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	68	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	91	(17 - 157)
13C-2,3,7,8-TCDF	84	(24 - 169)
13C-1,2,3,7,8-PeCDF	102	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	74	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-612-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-620-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 012	**Work Order #....:**	MXJTP1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	9.9
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.083	1.0	0
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.16 Q J**	**5.6**	**0.054**	**1.0**	**0.16**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.15 Q B J**	**5.6**	**0.034**	**0.1**	**0.015**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.40 Q J**	**5.6**	**0.034**	**0.1**	**0.040**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.46**	**5.6**	**0.032**	**0.1**	**0.046**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**8.3 B**	**5.6**	**0.041**	**0.01**	**0.083**
OCDD	**1/3/13**	**1**	**78 B**	**11**	**0.047**	**0.0003**	**0.023**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.20 Q J**	**1.1**	**0.052**	**0.1**	**0.020**
1,2,3,7,8-PeCDF	**1/3/13**	**1**	**0.048 J**	**5.6**	**0.044**	**0.03**	**0.0014**
2,3,4,7,8-PeCDF	**1/3/13**	**1**	**0.11 Q B J**	**5.6**	**0.041**	**0.3**	**0.033**
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.13 Q B J**	**5.6**	**0.026**	**0.1**	**0.013**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.091 Q J**	**5.6**	**0.027**	**0.1**	**0.0091**
2,3,4,6,7,8-HxCDF	**1/3/13**	**1**	**0.19 B J**	**5.6**	**0.023**	**0.1**	**0.019**
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.6	0.026	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**2.1 B J**	**5.6**	**0.030**	**0.01**	**0.021**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.22 Q B J**	**5.6**	**0.049**	**0.01**	**0.0022**
OCDF	**1/3/13**	**1**	**4.0 B J**	**11**	**0.038**	**0.0003**	**0.0012**
Total TEQ Concentration							**0.49**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	89	(25 - 164)
13C-1,2,3,7,8-PeCDD	107	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	87	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	107	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-620-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-521-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 013	**Work Order #....:**	MXJTQ1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	4.4
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.0	0.093	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.2	0.062	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.2	0.041	0.1	0
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**0.060 Q J**	**5.2**	**0.044**	**0.1**	**0.0060**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**0.068 B J**	**5.2**	**0.040**	**0.1**	**0.0068**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**0.40 Q B J**	**5.2**	**0.040**	**0.01**	**0.0040**
OCDD	**1/3/13**	**1**	**4.1 B J**	**10**	**0.046**	**0.0003**	**0.0012**
2,3,7,8-TCDF	1/3/13	1	ND	1.0	0.052	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.2	0.054	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.2	0.045	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.2	0.026	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.2	0.025	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.2	0.025	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.2	0.029	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**0.12 Q B J**	**5.2**	**0.032**	**0.01**	**0.0012**
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.2	0.048	0.01	0
OCDF	**1/3/13**	**1**	**0.14 Q B J**	**10**	**0.041**	**0.0003**	**0.000042**
Total TEQ Concentration							**0.019**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(25 - 164)
13C-1,2,3,7,8-PeCDD	106	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	84	(24 - 169)
13C-1,2,3,7,8-PeCDF	104	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-521-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-521-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 014	**Work Order #....:**	MXJTR1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	3.5
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.1	0.064	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.3	0.037	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.3	0.026	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.3	0.026	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.3	0.024	0.1	0
1,2,3,4,6,7,8-HpCDD	1/3/13	1	ND	5.3	0.024	0.01	0
OCDD	**1/3/13**	**1**	**0.30 Q B J**	**11**	**0.034**	**0.0003**	**0.000090**
2,3,7,8-TCDF	1/3/13	1	ND	1.1	0.036	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.3	0.027	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.3	0.024	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.3	0.016	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.016	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.3	0.015	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.3	0.018	0.1	0
1,2,3,4,6,7,8-HpCDF	1/3/13	1	ND	5.3	0.024	0.01	0
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.3	0.035	0.01	0
OCDF	1/3/13	1	ND	11	0.029	0.0003	0

Total TEQ Concentration **0.000090**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	104	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	68	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	103	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	66	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-521-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-566-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 015	**Work Order #....:**	MXJTT1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	10
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/3/13**	**1**	**0.13 Q J**	**1.1**	**0.11**	**1.0**	**0.13**
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.28 Q J**	**5.5**	**0.083**	**1.0**	**0.28**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.40 Q B J**	**5.5**	**0.051**	**0.1**	**0.040**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**1.2 J**	**5.5**	**0.053**	**0.1**	**0.12**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**1.3**	**5.5**	**0.049**	**0.1**	**0.13**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**34 B**	**5.5**	**0.073**	**0.01**	**0.34**
OCDD	**1/3/13**	**1**	**290 B**	**11**	**0.070**	**0.0003**	**0.087**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.71 Q J**	**1.1**	**0.087**	**0.1**	**0.071**
1,2,3,7,8-PeCDF	**1/3/13**	**1**	**0.16 Q J**	**5.5**	**0.065**	**0.03**	**0.0048**
2,3,4,7,8-PeCDF	**1/3/13**	**1**	**0.30 Q B J**	**5.5**	**0.058**	**0.3**	**0.090**
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.50 B J**	**5.5**	**0.036**	**0.1**	**0.050**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.30 J**	**5.5**	**0.038**	**0.1**	**0.030**
2,3,4,6,7,8-HxCDF	**1/3/13**	**1**	**0.23 Q B J**	**5.5**	**0.033**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.5	0.038	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**5.5 S B**	**5.5**	**0.062**	**0.01**	**0.055**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.66 B J**	**5.5**	**0.088**	**0.01**	**0.0066**
OCDF	**1/3/13**	**1**	**4.8 B J**	**11**	**0.056**	**0.0003**	**0.0014**
Total TEQ Concentration							**1.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	101	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	81	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	95	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	45	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	64	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-566-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-567-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 016	**Work Order #....:**	MXJTV1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	9.4
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/3/13**	**1**	**1.3 Q**	**1.1**	**0.065**	**1.0**	**1.3**
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.17 Q J**	**5.6**	**0.054**	**1.0**	**0.17**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.38 B J**	**5.6**	**0.037**	**0.1**	**0.038**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**1.1 J**	**5.6**	**0.037**	**0.1**	**0.11**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**1.1**	**5.6**	**0.035**	**0.1**	**0.11**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**29 B**	**5.6**	**0.048**	**0.01**	**0.29**
OCDD	**1/3/13**	**1**	**260 B**	**11**	**0.047**	**0.0003**	**0.078**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.29 Q J**	**1.1**	**0.047**	**0.1**	**0.029**
1,2,3,7,8-PeCDF	**1/3/13**	**1**	**0.12 J**	**5.6**	**0.042**	**0.03**	**0.0036**
2,3,4,7,8-PeCDF	**1/3/13**	**1**	**0.17 Q B J**	**5.6**	**0.038**	**0.3**	**0.051**
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.35**	**5.6**	**0.023**	**0.1**	**0.035**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.25 J**	**5.6**	**0.023**	**0.1**	**0.025**
2,3,4,6,7,8-HxCDF	**1/3/13**	**1**	**0.15 Q B J**	**5.6**	**0.020**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	**1/3/13**	**1**	**0.068 Q B J**	**5.6**	**0.024**	**0.1**	**0.0068**
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**7.0 S B**	**5.6**	**0.10**	**0.01**	**0.070**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.76 Q B J**	**5.6**	**0.065**	**0.01**	**0.0076**
OCDF	**1/3/13**	**1**	**11 B J**	**11**	**0.039**	**0.0003**	**0.0033**
Total TEQ Concentration							**2.3**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	88	(25 - 164)
13C-1,2,3,7,8-PeCDD	102	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	82	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	107	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	23 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-567-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-567-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 017	**Work Order #....:**	MXJTW1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	5.3
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/4/13**	**1**	**0.17 Q J**	**1.1**	**0.068**	**1.0**	**0.17**
1,2,3,7,8-PeCDD	1/4/13	1	ND	5.3	0.039	1.0	0
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.074 Q B J**	**5.3**	**0.025**	**0.1**	**0.0074**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**0.14 Q J**	**5.3**	**0.028**	**0.1**	**0.014**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**0.17 B J**	**5.3**	**0.025**	**0.1**	**0.017**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**3.2 B J**	**5.3**	**0.032**	**0.01**	**0.032**
OCDD	**1/4/13**	**1**	**37 B**	**11**	**0.041**	**0.0003**	**0.011**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.039 Q J**	**1.1**	**0.042**	**0.1**	**0.0039**
1,2,3,7,8-PeCDF	1/4/13	1	ND	5.3	0.036	0.03	0
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**0.035 Q B J**	**5.3**	**0.031**	**0.3**	**0.010**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**0.053 B J**	**5.3**	**0.020**	**0.1**	**0.0053**
1,2,3,6,7,8-HxCDF	1/4/13	1	ND	5.3	0.020	0.1	0
2,3,4,6,7,8-HxCDF	1/4/13	1	ND	5.3	0.016	0.1	0
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.3	0.021	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**0.95 B J**	**5.3**	**0.031**	**0.01**	**0.0095**
1,2,3,4,7,8,9-HpCDF	1/4/13	1	ND	5.3	0.044	0.01	0
OCDF	**1/4/13**	**1**	**2.1 B J**	**11**	**0.028**	**0.0003**	**0.00063**
Total TEQ Concentration							**0.28**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	97	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-567-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-516-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 018	**Work Order #....:**	MXJTX1AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	7.9
Initial Wgt/Vol :	9.6 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/4/13	1	ND	1.1	0.089	1.0	0
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**0.094 Q J**	**5.7**	**0.082**	**1.0**	**0.094**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.10 B J**	**5.7**	**0.058**	**0.1**	**0.010**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**0.38 Q J**	**5.7**	**0.061**	**0.1**	**0.038**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**0.095 Q B J**	**5.7**	**0.056**	**0.1**	**0.0095**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**15 B**	**5.7**	**0.14**	**0.01**	**0.15**
OCDD	**1/4/13**	**1**	**120 B**	**11**	**0.16**	**0.0003**	**0.036**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.038 Q J**	**1.1**	**0.068**	**0.1**	**0.0038**
1,2,3,7,8-PeCDF	1/4/13	1	ND	5.7	0.066	0.03	0
2,3,4,7,8-PeCDF	1/4/13	1	ND	5.7	0.058	0.3	0
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**0.067 B J**	**5.7**	**0.045**	**0.1**	**0.0067**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**0.092 Q J**	**5.7**	**0.044**	**0.1**	**0.0092**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**0.047 Q B J**	**5.7**	**0.040**	**0.1**	**0.0047**
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.7	0.045	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**1.0 Q B J**	**5.7**	**0.077**	**0.01**	**0.010**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**0.067 Q B J**	**5.7**	**0.094**	**0.01**	**0.00067**
OCDF	**1/4/13**	**1**	**2.5 S B J**	**11**	**0.063**	**0.0003**	**0.00075**
Total TEQ Concentration							**0.37**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	90	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	66	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	60	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	66	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-516-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-516-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 019	**Work Order #....:**	MXJT01AC	**Matrix.....:**	SO
Date Sampled....:	12/06/12	**Date Received....:**	12/11/12	**Units....:**	ng/kg
Prep Date....:	12/12/12			**Dilution Factor:**	1
Prep Batch # ....:	2347020			**Percent Moisture:**	17
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/4/13	1	ND	1.2	0.11	1.0	0
1,2,3,7,8-PeCDD	1/4/13	1	ND	6.2	0.071	1.0	0
1,2,3,4,7,8-HxCDD	1/4/13	1	ND	6.2	0.051	0.1	0
1,2,3,6,7,8-HxCDD	1/4/13	1	ND	6.2	0.054	0.1	0
1,2,3,7,8,9-HxCDD	1/4/13	1	ND	6.2	0.049	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**0.13 B J**	**6.2**	**0.067**	**0.01**	**0.0013**
OCDD	**1/4/13**	**1**	**0.82 B J**	**12**	**0.092**	**0.0003**	**0.00025**
2,3,7,8-TCDF	1/4/13	1	ND	1.2	0.072	0.1	0
1,2,3,7,8-PeCDF	1/4/13	1	ND	6.2	0.057	0.03	0
2,3,4,7,8-PeCDF	1/4/13	1	ND	6.2	0.051	0.3	0
1,2,3,4,7,8-HxCDF	1/4/13	1	ND	6.2	0.042	0.1	0
1,2,3,6,7,8-HxCDF	1/4/13	1	ND	6.2	0.041	0.1	0
2,3,4,6,7,8-HxCDF	1/4/13	1	ND	6.2	0.035	0.1	0
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	6.2	0.042	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**0.067 Q B J**	**6.2**	**0.056**	**0.01**	**0.00067**
1,2,3,4,7,8,9-HpCDF	1/4/13	1	ND	6.2	0.076	0.01	0
OCDF	**1/4/13**	**1**	**0.21 Q B J**	**12**	**0.079**	**0.0003**	**0.000063**
Total TEQ Concentration							**0.0023**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	71	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-516-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB1-120612

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 020	**Work Order #....:**	MXJT11AA	**Matrix.....:**	WQ
Date Sampled....:	12/06/12	**Date Received....:**	12/07/12	**Units....:**	pg/L
Prep Date....:	12/18/12			**Dilution Factor:**	1
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1045 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	9.6	1.1	1.0	0
1,2,3,7,8-PeCDD	12/26/12	1	ND	48	0.68	1.0	0
1,2,3,4,7,8-HxCDD	12/26/12	1	ND	48	0.45	0.1	0
1,2,3,6,7,8-HxCDD	12/26/12	1	ND	48	0.49	0.1	0
1,2,3,7,8,9-HxCDD	12/26/12	1	ND	48	0.44	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/26/12**	**1**	**0.52 Q B J**	**48**	**0.37**	**0.01**	**0.0052**
OCDD	**12/26/12**	**1**	**4.0 B J**	**96**	**0.52**	**0.0003**	**0.0012**
2,3,7,8-TCDF	12/26/12	1	ND	9.6	0.66	0.1	0
1,2,3,7,8-PeCDF	12/26/12	1	ND	48	0.44	0.03	0
2,3,4,7,8-PeCDF	12/26/12	1	ND	48	0.43	0.3	0
1,2,3,4,7,8-HxCDF	12/26/12	1	ND	48	0.30	0.1	0
1,2,3,6,7,8-HxCDF	12/26/12	1	ND	48	0.27	0.1	0
2,3,4,6,7,8-HxCDF	12/26/12	1	ND	48	0.24	0.1	0
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	48	0.32	0.1	0
1,2,3,4,6,7,8-HpCDF	12/26/12	1	ND	48	0.36	0.01	0
1,2,3,4,7,8,9-HpCDF	12/26/12	1	ND	48	0.52	0.01	0
OCDF	12/26/12	1	ND	96	0.57	0.0003	0
Total TEQ Concentration							**0.0064**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(25 - 164)
13C-1,2,3,7,8-PeCDD	118	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	99	(23 - 140)
13C-OCDD	87	(17 - 157)
13C-2,3,7,8-TCDF	98	(24 - 169)
13C-1,2,3,7,8-PeCDF	126	(24 - 185)
13C-2,3,4,7,8-PeCDF	115	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	92	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	87	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	84	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB1-120612

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	109	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB2-120612

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L110413 - 021	**Work Order #....:**	MXJT31AA	**Matrix.....:**	WQ
Date Sampled....:	12/06/12	**Date Received....:**	12/07/12	**Units....:**	pg/L
Prep Date....:	12/18/12			**Dilution Factor:**	1
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1050 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/26/12	1	ND	9.5	1.4	1.0	0
1,2,3,7,8-PeCDD	12/26/12	1	ND	48	0.74	1.0	0
1,2,3,4,7,8-HxCDD	12/26/12	1	ND	48	0.59	0.1	0
1,2,3,6,7,8-HxCDD	12/26/12	1	ND	48	0.63	0.1	0
1,2,3,7,8,9-HxCDD	12/26/12	1	ND	48	0.57	0.1	0
1,2,3,4,6,7,8-HpCDD	12/26/12	1	ND	48	0.55	0.01	0
OCDD	**12/26/12**	**1**	**3.0 B J**	**95**	**0.71**	**0.0003**	**0.00090**
2,3,7,8-TCDF	12/26/12	1	ND	9.5	0.88	0.1	0
1,2,3,7,8-PeCDF	12/26/12	1	ND	48	0.69	0.03	0
2,3,4,7,8-PeCDF	12/26/12	1	ND	48	0.62	0.3	0
1,2,3,4,7,8-HxCDF	12/26/12	1	ND	48	0.38	0.1	0
1,2,3,6,7,8-HxCDF	12/26/12	1	ND	48	0.34	0.1	0
2,3,4,6,7,8-HxCDF	12/26/12	1	ND	48	0.32	0.1	0
1,2,3,7,8,9-HxCDF	12/26/12	1	ND	48	0.43	0.1	0
1,2,3,4,6,7,8-HpCDF	12/26/12	1	ND	48	0.57	0.01	0
1,2,3,4,7,8,9-HpCDF	12/26/12	1	ND	48	0.86	0.01	0
OCDF	12/26/12	1	ND	95	0.87	0.0003	0
Total TEQ Concentration							**0.00090**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(25 - 164)
13C-1,2,3,7,8-PeCDD	115	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	85	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	78	(17 - 157)
13C-2,3,7,8-TCDF	96	(24 - 169)
13C-1,2,3,7,8-PeCDF	114	(24 - 185)
13C-2,3,4,7,8-PeCDF	105	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	90	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB2-120612

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	106	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated Result.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L120000 - 020B	**Work Order #....:**	MXJ5J1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/12/12	**Analysis Date....:**	12/31/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2347020				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.055	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.033	ng/kg
1,2,3,4,7,8-HxCDD	**0.051**	**Q J**	**5.0**	**0.022**	**ng/kg**
1,2,3,6,7,8-HxCDD	ND		5.0	0.023	ng/kg
1,2,3,7,8,9-HxCDD	**0.069**	**S J**	**5.0**	**0.021**	**ng/kg**
1,2,3,4,6,7,8-HpCDD	**0.15**	**J**	**5.0**	**0.023**	**ng/kg**
OCDD	**0.42**	**Q J**	**10**	**0.028**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.031	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.027	ng/kg
2,3,4,7,8-PeCDF	**0.045**	**Q J**	**5.0**	**0.023**	**ng/kg**
1,2,3,4,7,8-HxCDF	**0.036**	**Q J**	**5.0**	**0.021**	**ng/kg**
1,2,3,6,7,8-HxCDF	ND		5.0	0.020	ng/kg
2,3,4,6,7,8-HxCDF	**0.11**	**J**	**5.0**	**0.016**	**ng/kg**
1,2,3,7,8,9-HxCDF	**0.048**	**Q J**	**5.0**	**0.022**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.065**	**Q J**	**5.0**	**0.024**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.077**	**Q J**	**5.0**	**0.037**	**ng/kg**
OCDF	**0.078**	**Q J**	**10**	**0.028**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	88	25 - 164
13C-1,2,3,7,8-PeCDD	109	25 - 181
13C-1,2,3,4,7,8-HxCDD	89	32 - 141
13C-1,2,3,6,7,8-HxCDD	74	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	99	23 - 140
13C-OCDD	93	17 - 157
13C-2,3,7,8-TCDF	86	24 - 169
13C-1,2,3,7,8-PeCDF	106	24 - 185
13C-2,3,4,7,8-PeCDF	102	21 - 178
13C-1,2,3,4,7,8-HxCDF	72	26 - 152
13C-1,2,3,6,7,8-HxCDF	69	26 - 123
13C-2,3,4,6,7,8-HxCDF	83	28 - 136
13C-1,2,3,7,8,9-HxCDF	79	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	67	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	62	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L120000 - 020B	**Work Order #....:**	MXJ5J1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/12/12	**Analysis Date....:**	12/31/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2347020				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

S Ion suppression.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L110413	**Work Order # ...:**	MXJ5J1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L120000 - 020				
Prep Date .....:	12/12/12	**Analysis Date ..:**	12/31/12		
Prep Batch # ...:	2347020				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.0**	**ng/kg**	**110**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**108**	**ng/kg**	**108**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**102**	**ng/kg**	**102**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**109**	**ng/kg**	**109**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**	**B**	**(70 - 140)**
OCDD	**200**	**207**	**ng/kg**	**104**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.4**	**ng/kg**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**99.6**	**ng/kg**	**100**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**103**	**ng/kg**	**103**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**103**	**ng/kg**	**103**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**103**	**ng/kg**	**103**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**104**	**ng/kg**	**104**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**104**	**ng/kg**	**104**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**105**	**ng/kg**	**105**	**B**	**(78 - 138)**
OCDF	**200**	**145**	**ng/kg**	**72**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	(20 - 175)
13C-1,2,3,7,8-PeCDD	104	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	86	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	71	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	96	(26 - 166)
13C-OCDD	94	(13 - 199)
13C-2,3,7,8-TCDF	84	(22 - 152)
13C-1,2,3,7,8-PeCDF	103	(21 - 192)
13C-2,3,4,7,8-PeCDF	100	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	71	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	67	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	83	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	80	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	69	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	72	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L110413	**Work Order # ...:**	MXJTA1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L110413 - 001		MXJTA1AE-MSD		
Prep Date .....:	12/12/12	**Analysis Date ..:**	01/02/13		
Prep Batch # ...:	2347020				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	ND	23.0	25.0	ng/kg	109	(67 - 158)		
	ND	23.0	25.5	ng/kg	111	(67 - 158)	1.8	(0 - 25)
1,2,3,7,8-PeCDD	0.15	115	122	ng/kg	106	(70 - 142)		
	0.15	115	123	ng/kg	106	(70 - 142)	0.31	(0 - 25)
1,2,3,4,7,8-HxCDD	0.25	115	122	ng/kg	106 B	(70 - 164)		
	0.25	115	118	ng/kg	102 B	(70 - 164)	3.4	(0 - 25)
1,2,3,6,7,8-HxCDD	0.55	115	115	ng/kg	99	(76 - 134)		
	0.55	115	118	ng/kg	102	(76 - 134)	2.4	(0 - 25)
1,2,3,7,8,9-HxCDD	0.53	115	118	ng/kg	102 B	(64 - 162)		
	0.53	115	118	ng/kg	102 B	(64 - 162)	0.58	(0 - 25)
1,2,3,4,6,7,8-HpCDD	10	115	129	ng/kg	103 B	(70 - 140)		
	10	115	129	ng/kg	103 B	(70 - 140)	0.35	(0 - 25)
OCDD	80	230	326	ng/kg	107 B	(78 - 144)		
	80	230	331	ng/kg	109 B	(78 - 144)	1.6	(0 - 25)
2,3,7,8-TCDF	0.10	23.0	23.9	ng/kg	103	(75 - 158)		
	0.10	23.0	23.9	ng/kg	104	(75 - 158)	0.29	(0 - 25)
1,2,3,7,8-PeCDF	ND	115	116	ng/kg	101	(80 - 134)		
	ND	115	116	ng/kg	101	(80 - 134)	0.11	(0 - 25)
2,3,4,7,8-PeCDF	0.16	115	118	ng/kg	102 B	(68 - 160)		
	0.16	115	120	ng/kg	104 B	(68 - 160)	1.5	(0 - 25)
1,2,3,4,7,8-HxCDF	0.18	115	120	ng/kg	104 B	(72 - 134)		
	0.18	115	119	ng/kg	103 B	(72 - 134)	0.56	(0 - 25)
1,2,3,6,7,8-HxCDF	0.16	115	121	ng/kg	105	(84 - 130)		
	0.16	115	120	ng/kg	104	(84 - 130)	0.64	(0 - 25)
2,3,4,6,7,8-HxCDF	0.13	115	119	ng/kg	103 B	(70 - 156)		
	0.13	115	120	ng/kg	104 B	(70 - 156)	0.90	(0 - 25)
1,2,3,7,8,9-HxCDF	ND	115	118	ng/kg	102 B	(78 - 130)		
	ND	115	120	ng/kg	104 B	(78 - 130)	1.8	(0 - 25)
1,2,3,4,6,7,8-HpCDF	2.6	115	142	ng/kg	121 B S	(82 - 122)		
	2.6	115	132	ng/kg	112 B	(82 - 122)	7.0	(0 - 25)
1,2,3,4,7,8,9-HpCDF	0.37	115	119	ng/kg	103 B	(78 - 138)		
	0.37	115	123	ng/kg	107 B	(78 - 138)	3.4	(0 - 25)
OCDF	3.9	230	86.5	ng/kg	36 a B	(63 - 170)		
	3.9	230	122	ng/kg	51 a p B	(63 - 170)	34	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L110413	**Work Order # ...:**	MXJTA1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L110413 - 001		MXJTA1AE-MSD		
Prep Date .....:	12/12/12	**Analysis Date ..:**	01/02/13		
Prep Batch # ...:	2347020				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
	86	(25 - 164)
13C-1,2,3,7,8-PeCDD	102	(25 - 181)
	111	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
	98	(23 - 140)
13C-OCDD	78	(17 - 157)
	84	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	103	(24 - 185)
	114	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
	104	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	47	(28 - 143)
	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	54	(26 - 138)
	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)
	97	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L110413	**Work Order # ...:**	MXJTA1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L110413 - 001		MXJTA1AE-MSD		
Prep Date .....:	12/12/12	**Analysis Date ..:**	01/02/13		
Prep Batch # ...:	2347020				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

p Relative percent difference (RPD) is outside stated control limits.

S Ion suppression.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L190000 - 018B	**Work Order #....:**	MXM1L1AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	12/18/12	**Analysis Date....:**	12/26/12		
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	1.6	pg/L
1,2,3,7,8-PeCDD	**0.91**	**Q J**	**50**	**0.73**	**pg/L**
1,2,3,4,7,8-HxCDD	**0.72**	**Q J**	**50**	**0.53**	**pg/L**
1,2,3,6,7,8-HxCDD	**0.85**	**Q J**	**50**	**0.55**	**pg/L**
1,2,3,7,8,9-HxCDD	**0.96**	**Q J**	**50**	**0.51**	**pg/L**
1,2,3,4,6,7,8-HpCDD	**1.5**	**J**	**50**	**0.68**	**pg/L**
OCDD	**11**	**J**	**100**	**0.63**	**pg/L**
2,3,7,8-TCDF	ND		10	1.0	pg/L
1,2,3,7,8-PeCDF	ND		50	0.69	pg/L
2,3,4,7,8-PeCDF	**1.1**	**Q J**	**50**	**0.62**	**pg/L**
1,2,3,4,7,8-HxCDF	**0.84**	**J**	**50**	**0.36**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		50	0.35	pg/L
2,3,4,6,7,8-HxCDF	**0.80**	**Q J**	**50**	**0.33**	**pg/L**
1,2,3,7,8,9-HxCDF	**1.0**	**J**	**50**	**0.45**	**pg/L**
1,2,3,4,6,7,8-HpCDF	**1.1**	**J**	**50**	**0.48**	**pg/L**
1,2,3,4,7,8,9-HpCDF	**2.1**	**Q J**	**50**	**0.90**	**pg/L**
OCDF	**2.7**	**Q J**	**100**	**0.74**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	25 - 164
13C-1,2,3,7,8-PeCDD	124	25 - 181
13C-1,2,3,4,7,8-HxCDD	99	32 - 141
13C-1,2,3,6,7,8-HxCDD	88	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	100	23 - 140
13C-OCDD	88	17 - 157
13C-2,3,7,8-TCDF	96	24 - 169
13C-1,2,3,7,8-PeCDF	122	24 - 185
13C-2,3,4,7,8-PeCDF	115	21 - 178
13C-1,2,3,4,7,8-HxCDF	87	26 - 152
13C-1,2,3,6,7,8-HxCDF	80	26 - 123
13C-2,3,4,6,7,8-HxCDF	89	28 - 136
13C-1,2,3,7,8,9-HxCDF	82	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	82	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	71	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L190000 - 018B	**Work Order #....:**	MXM1L1AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	12/18/12	**Analysis Date....:**	12/26/12		
Prep Batch # ....:	2354018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Melissa A. Davidson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	104	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L110413	**Work Order # ...:**	MXM1L1AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H2L190000 - 018				
Prep Date .....:	12/18/12	**Analysis Date ..:**	12/26/12		
Prep Batch # ...:	2354018				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**228**	**pg/L**	**114**		**(67 - 158)**
1,2,3,7,8-PeCDD	**1000**	**1100**	**pg/L**	**110**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**1000**	**1030**	**pg/L**	**103**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**1000**	**962**	**pg/L**	**96**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**1000**	**953**	**pg/L**	**95**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**1000**	**995**	**pg/L**	**99**	**B**	**(70 - 140)**
OCDD	**2000**	**2040**	**pg/L**	**102**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**200**	**204**	**pg/L**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**1000**	**993**	**pg/L**	**99**		**(80 - 134)**
2,3,4,7,8-PeCDF	**1000**	**997**	**pg/L**	**100**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**1000**	**1010**	**pg/L**	**101**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**1000**	**1020**	**pg/L**	**102**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**1000**	**1040**	**pg/L**	**104**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**1000**	**1040**	**pg/L**	**104**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**1000**	**1010**	**pg/L**	**101**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**1000**	**1020**	**pg/L**	**102**	**B**	**(78 - 138)**
OCDF	**2000**	**1700**	**pg/L**	**85**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(20 - 175)
13C-1,2,3,7,8-PeCDD	121	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	103	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	93	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	95	(26 - 166)
13C-OCDD	86	(13 - 199)
13C-2,3,7,8-TCDF	96	(22 - 152)
13C-1,2,3,7,8-PeCDF	132	(21 - 192)
13C-2,3,4,7,8-PeCDF	117	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	97	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	86	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	91	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	86	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	92	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	85	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	111	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

192L11D2113

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237474454

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-04
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							pH 5 Rejed
EB2-120612	12/6/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/6/2012	1600	[illegible]	12/7/12	1010						

1 cooler Rec'd @ 3.2°
with custody Seal intact
[illegible] 12/7/12
1 cooler FedEx # 7942 3747 4454

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L110413

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 90642 PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/7/12

QA026R22.doc, 012811

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L110413

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162942.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.				Job #: 280-36711-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/18/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-618-SA6-SB-0.0-0.5MS (280-36711-1)	12/6/12	08:25 Pacific		Solid			X	X	1	TEQs required
SL-618-SA6-SB-0.0-0.5MS (280-36711-1MS)	12/6/12	08:25 Pacific	MS	Solid			X		1	TEQs required
SL-618-SA6-SB-0.0-0.5MS (280-36711-1MSD)	12/6/12	08:25 Pacific	MSD	Solid			X		1	TEQs required
SL-1018-SA6-SB-0.0-0.5 (280-36711-2)	12/6/12	08:30 Pacific		Solid			X	X	2	TEQs required
SL-619-SA6-SB-0.0-0.5 (280-36711-3)	12/6/12	07:45 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-4.0-5.0 (280-36711-4)	12/6/12	08:20 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-9.0-10.0 (280-36711-5)	12/6/12	08:30 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-14.0-15.0 (280-36711-6)	12/6/12	08:35 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-19.0-20.0 (280-36711-7)	12/6/12	08:40 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-24.0-25.0 (280-36711-8)	12/6/12	08:45 Pacific		Solid			X	X	2	TEQs required
SL-520-SA6-SB-30.0-31.0 (280-36711-9)	12/6/12	08:50 Pacific		Solid			X	X	2	TEQs required

REC. @ 1.1°C
CUSTODY SEAL INTACT
1 COOLER RH 12-14-12
FED EX #549036932211

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
K Watts	12-10-12 1600		Ryan Henry	12/11/12 0945	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H12110413

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162942.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.				Job #: 280-36711-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/18/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-612-SA6-SB-0.0-0.5 (280-36711-10)	12/6/12	10:10 Pacific		Solid			X	X	2	TEQs required
SL-612-SA6-SB-2.0-3.0 (280-36711-11)	12/6/12	10:30 Pacific		Solid			X	X	2	TEQs required
SL-620-SA6-SB-0.0-0.5 (280-36711-12)	12/6/12	09:40 Pacific		Solid			X	X	2	TEQs required
SL-521-SA6-SB-0.0-0.5 (280-36711-13)	12/6/12	11:00 Pacific		Solid			X	X	2	TEQs required
SL-521-SA6-SB-4.0-5.0 (280-36711-14)	12/6/12	13:10 Pacific		Solid			X	X	2	TEQs required
SL-566-SA6-SB-0.0-0.5 (280-36711-15)	12/6/12	12:55 Pacific		Solid			X	X	2	TEQs required
SL-567-SA6-SB-0.0-0.5 (280-36711-16)	12/6/12	13:30 Pacific		Solid			X	X	2	TEQs required
SL-567-SA6-SB-2.0-3.0 (280-36711-17)	12/6/12	13:45 Pacific		Solid			X	X	2	TEQs required
SL-516-SA6-SB-0.0-0.5 (280-36711-18)	12/6/12	14:05 Pacific		Solid			X	X	2	TEQs required
SL-516-SA6-SB-3.0-4.0 (280-36711-19)	12/6/12	14:20 Pacific		Solid			X	X	2	TEQs required
EB1-120612 (280-36711-20)	12/6/12	15:00 Pacific		Water			X		2	TEQs required RC/ND pH=6

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: K Watts	Date/Time: 12-10-12 1600	Company	Received by: Kyan Henry	Date/Time: 12/11/12 0945	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L110413

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-162942.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.				Job #: 280-36711-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/18/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
EB2-120612 (280-36711-21)	12/6/12	15:30 Pacific		Water			X		2	TEQs required RC/ND pH=6

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
N Watts	12-10-12 1600		Ryan Henry	12/11/12 0945	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L110413

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: NA

Sample Receiving Associate: Lynn Henry Date: 12/11/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

(W) 12712 IRL 3.0 3.6 2.5 3.2

CDM Smith

DateShipped: 12/6/2012

CarrierName: FedEx

AirbillNo: 794237343408

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121206-02

Cooler #: 1

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9040 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-618-SA6-SB-0.0-0.5MS	12/6/12 08:25	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-1018-SA6-SB-0.0-0.5	12/6/12 08:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-619-SA6-SB-0.0-0.5	12/6/12 07:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-520-SA6-SB-4.0-5.0	12/6/12 08:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-9.0-10.0	12/6/12 08:30	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-14.0-15.0	12/6/12 08:35	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-19.0-20.0	12/6/12 08:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-24.0-25.0	12/6/12 08:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-520-SA6-SB-30.0-31.0	12/6/12 08:50	SO	None	1 - 4 oz glass	10 day									X																							
SL-612-SA6-SB-0.0-0.5	12/6/12 10:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-612-SA6-SB-2.0-3.0	12/6/12 10:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-620-SA6-SB-0.0-0.5	12/6/12 09:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-521-SA6-SB-0.0-0.5	12/6/12 11:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-521-SA6-SB-4.0-5.0	12/6/12 13:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-566-SA6-SB-0.0-0.5	12/6/12 12:55	SO	None	1 - SS-Sleeve	10 day									X																							
SL-567-SA6-SB-0.0-0.5	12/6/12 13:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-567-SA6-SB-2.0-3.0	12/6/12 13:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-516-SA6-SB-0.0-0.5	12/6/12 14:05	SO	None	1 - SS-Sleeve	10 day									X																							
SL-516-SA6-SB-3.0-4.0	12/6/12 14:20	SO	None	1 - 4 oz glass	10 day									X																							

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237343408

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/04/2012	1600	[illegible]	12/7/12	930						

Page 88 of 94

COC Rev 2

COC: 20121206-02, Page 2 of 2

2 of 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237343408

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-03
Cooler #: 2,3,4
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB1-120612	12/6/12 15:00	WQ	None	6 - 1 L Amber	10 day							X			X										X												
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB1-120612	12/6/12 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													
EB2-120612	12/6/12 15:30	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB2-120612	12/6/12 15:30	WQ	None	6 - 1 L Amber	10 day							X			X										X												
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Poly	10 day														X																		
EB2-120612	12/6/12 15:30	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2012	1600	[illegible]	12/7/12	930						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012
CarrierName: FedEx
AirbillNo: 794237474454

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121206-04
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	None	2 - 1 L Amber	10 day										X																						pH 5 Rejed
EB2-120612	12/6/12 15:30	WQ	None	2 - 1 L Amber	10 day										X																						

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2012	1400	[illegible]	12/7/12	1010						

1 cooler Rec'd @ 3.2°
with custody Seal intact
[illegible] 12/7/12
1 cooler FedEx # 7942 3747 4454

1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/7/12

QA026R22.doc, 012811

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2012

CarrierName: FedEx

AirbillNo: 794237343408

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20121206-03

Cooler #: 2,3,4

Lab: TestAmerica - Denver

Lab Phone: 303-736-0100

Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120612	12/6/12 15:00	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB1-120612	12/6/12 15:00	WQ	None	6 - 1 L Amber	10 day							X			X											X											
EB1-120612	12/6/12 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB1-120612	12/6/12 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
EB2-120612	12/6/12 15:30	WQ	HNO3 pH<2	1 - 500 mL Poly	10 day	X		X																													
EB2-120612	12/6/12 15:30	WQ	None	6 - 1 L Amber	10 day							X			X											X											
EB2-120612	12/6/12 15:30	WQ	None	1 - 250 mL Poly	10 day														X																		

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time		Relinquished by	Date	Time	Received by	Date	Time

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36711-2

Login Number: 36711

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Did not received VOA vials for EB2-120612
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Friday, December 07, 2012 12:21 PM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36711, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the nineteen soil samples and two equipment blanks received at the laboratories on 12/7/12.

The samples were received in acceptable condition at temperature of 3.1℃, 3.6℃, 2.8℃, 3.2℃ (Denver), 2.6℃ (Nashville), 4.9℃ (Irvine) and 3.2 ℃ (Knoxville).

RECEIPT DISCREPANCIES:

1.) Chain of Custody 20121206-03 requests TPH-GRO 8015 for sample EB2-120612 (280-36711-21); however, no 40mL VOA vials were received for this sample. As such, the requested Gasoline Range Organics analysis could not be logged for this sample.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36711-2 to accommodate the extended TAT required for dioxin analysis.

3.) TestAmerica's Denver laboratory subcontracted the 7199 Hexavalent Chromium analysis to TestAmerica's Irvine laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089041]
Attachments: 8

SAMPLE DELIVERY GROUP

280-36788-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36788-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/18/2012 1:27:03 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 6
Sample Summary 7
Client Sample Results 8
QC Sample Results 9
QC Association 10
Chronicle 11
Chain of Custody 12
Receipt Checklists 14

Job ID: 280-36788-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36788-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Two Equipment Blanks were received under Chain of Custody on December 8, 2012. The samples were received in good condition at a temperature of 3.8°C.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36788-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No anomalies were encountered during sample receipt.

HPLC / Perchlorate - SW846 6860
Matrix spikes were not requested for batch 280-151581. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No anomalies were observed.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Client Sample ID: EB1-120712 — Lab Sample ID: 280-36788-10

No Detections

Client Sample ID: EB2-120712 — Lab Sample ID: 280-36788-11

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Method	Method Description	Protocol	Laboratory
6860	Perchlorate by IC/MS or IC/MS/MS	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36788-10	EB1-120712	Water	12/07/12 15:00	12/08/12 09:00
280-36788-11	EB2-120712	Water	12/07/12 15:30	12/08/12 09:00

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Method: 6860 - Perchlorate by IC/MS or IC/MS/MS

Client Sample ID: EB1-120712 — **Lab Sample ID: 280-36788-10**
Date Collected: 12/07/12 15:00 — **Matrix: Water**
Date Received: 12/08/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		0.050	0.0088	ug/L			12/11/12 16:06	1

Client Sample ID: EB2-120712 — **Lab Sample ID: 280-36788-11**
Date Collected: 12/07/12 15:30 — **Matrix: Water**
Date Received: 12/08/12 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		0.050	0.0088	ug/L			12/11/12 17:31	1

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Method: 6860 - Perchlorate by IC/MS or IC/MS/MS

Lab Sample ID: DLCK 280-149330/9 DLCK
Matrix: Water
Analysis Batch: 149330

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	0.0200	0.0180	J	ug/L		90	70 - 130

Lab Sample ID: MB 280-151581/15
Matrix: Water
Analysis Batch: 151581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		0.050	0.0088	ug/L			12/11/12 14:12	1

Lab Sample ID: LCS 280-151581/16
Matrix: Water
Analysis Batch: 151581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	0.0500	0.0482	J	ug/L		96	85 - 115

Lab Sample ID: LCSD 280-151581/17
Matrix: Water
Analysis Batch: 151581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	0.0500	0.0497	J	ug/L		99	85 - 115	3	15

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

LCMS

Analysis Batch: 149330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
DLCK 280-149330/9 DLCK	Lab Control Sample	Total/NA	Water	6860	

Analysis Batch: 151581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36788-10	EB1-120712	Total/NA	Water	6860	
280-36788-10 MS	EB1-120712	Total/NA	Water	6860	
280-36788-10 MSD	EB1-120712	Total/NA	Water	6860	
280-36788-11	EB2-120712	Total/NA	Water	6860	
LCS 280-151581/16	Lab Control Sample	Total/NA	Water	6860	
LCSD 280-151581/17	Lab Control Sample Dup	Total/NA	Water	6860	
MB 280-151581/15	Method Blank	Total/NA	Water	6860	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-1

Client Sample ID: EB1-120712

Lab Sample ID: 280-36788-10

Date Collected: 12/07/12 15:00

Matrix: Water

Date Received: 12/08/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6860		1	5 mL	1.0 mL	151581	12/11/12 16:06	HKF	TAL DEN

Client Sample ID: EB2-120712

Lab Sample ID: 280-36788-11

Date Collected: 12/07/12 15:30

Matrix: Water

Date Received: 12/08/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6860		1	5 mL	1.0 mL	151581	12/11/12 17:31	HKF	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/7/2012
CarrierName: FedEx
AirbillNo: 794251446929

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121207-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-542-SA6-SB-0.0-0.5	12/7/12 07:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-542-SA6-SB-3.0-4.0MS	12/7/12 08:45	SO	None	3 - 4 oz glass	10 day									X																							MS/MSD
SL-942-SA6-SB-3.0-4.0	12/7/12 08:55	SO	None	1 - 4 oz glass	10 day									X																							
SL-545-SA6-SB-0.0-0.5	12/7/12 09:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-545-SA6-SB-4.0-5.0	12/7/12 10:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-545-SA6-SB-9.0-10.0	12/7/12 10:30	SO	None	1 - 4 oz glass	10 day									X																							
SL-547-SA6-SB-0.0-0.5	12/7/12 12:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-547-SA6-SB-4.0-5.0	12/7/12 13:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-547-SA6-SB-9.0-10.0	12/7/12 13:50	SO	None	1 - 4 oz glass	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/07/2012	1500	[illegible]	12/8/12	0900						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/7/2012
CarrierName: FedEx
AirbillNo: 794251446929

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121207-03
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120712	12/7/12 15:00	WQ	None	1 - 125 mL Poly	10 day												X																				FILTERED IN FIELD
EB2-120712	12/7/12 15:30	WQ	None	1 - 125 mL Poly	10 day												X																				FILTERED IN FIELD

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/07/2012	1500	[illegible]	12/8/12	0900						

3.8 cc
12/8/12
FP

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36788-1

Login Number: 36788

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 10, 2012 7:46 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36788, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the nine soil samples and two equipment blanks received at the laboratories on 12/8/12.

The samples were received in acceptable condition at a temperature of 3.8℃.

RECEIPT DISCREPANCIES: None

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36788-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089129]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36788-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36788-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/7/2013 11:20:14 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 8
Sample Summary 9
Chronicle 10
Subcontract Data 12
Chain of Custody 51
Receipt Checklists 53

Job ID: 280-36788-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36788-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Nine soil samples were received under Chain of Custody on December 8, 2012. The samples were received in good condition at a temperature of 3.8°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36788-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
*	Surrogate recovery is outside stated control limits.
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.
S	Ion suppression.
C	Co-eluting isomer.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36788-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.11	Q J	5.8	0.068	0.5	0.055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.085	Q J	5.8	0.037	0.1	0.0085	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.18	Q J	5.8	0.036	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.20	J	5.8	0.034	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	5.6	B J	5.8	0.045	0.01	0.056	ng/kg	1	☼	1613B	Total
OCDD	61	B	12	0.055	0.001	0.061	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.096	Q J	1.2	0.11	0.1	0.0096	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.086	Q J	5.8	0.047	0.5	0.043	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.092	Q J	5.8	0.040	0.1	0.0092	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.072	Q J	5.8	0.032	0.1	0.0072	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.12	Q B J	5.8	0.023	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.80	B J	5.8	0.048	0.01	0.0080	ng/kg	1	☼	1613B	Total
OCDF	0.21	B J	12	0.051	0.001	0.00021	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36788-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.12	Q J	5.2	0.069	0.5	0.060	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.076	Q J	5.2	0.037	0.1	0.0076	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.51	Q J	5.2	0.038	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.29	J	5.2	0.035	0.1	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	22	B	5.2	0.092	0.01	0.22	ng/kg	1	☼	1613B	Total
OCDD	400	B	10	0.10	0.001	0.40	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.13	Q J	1.0	0.095	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.059	Q J	5.2	0.066	0.05	0.0030	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.096	Q J	5.2	0.051	0.5	0.048	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.17	Q J	5.2	0.034	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.13	J	5.2	0.031	0.1	0.013	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	B J	5.2	0.026	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.9	B J	5.2	0.053	0.01	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.37	Q B J	5.2	0.11	0.01	0.0037	ng/kg	1	☼	1613B	Total
OCDF	1.6	B J	10	0.064	0.001	0.0016	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36788-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.19	Q J	5.3	0.057	0.5	0.095	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.059	Q J	5.3	0.036	0.1	0.0059	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.55	J	5.3	0.039	0.1	0.055	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.23	J	5.3	0.035	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	22	B	5.3	0.060	0.01	0.22	ng/kg	1	☼	1613B	Total
OCDD	360	B	11	0.065	0.001	0.36	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.085	Q J	1.1	0.058	0.1	0.0085	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.059	J	5.3	0.052	0.05	0.0030	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.12	J	5.3	0.042	0.5	0.060	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.22	J	5.3	0.030	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.097	Q J	5.3	0.027	0.1	0.0097	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.037	Q B J	5.3	0.026	0.1	0.0037	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.9	B J	5.3	0.036	0.01	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.32	B J	5.3	0.050	0.01	0.0032	ng/kg	1	☼	1613B	Total
OCDF	3.7	B J	11	0.054	0.001	0.0037	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36788-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.13	Q J	5.5	0.088	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.19	Q J	5.5	0.053	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.7	J	5.5	0.055	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.53	C J	5.5	0.051	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	44	B	5.5	0.052	0.01	0.44	ng/kg	1	☼	1613B	Total
OCDD	730	B	11	0.11	0.001	0.73	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.82	J	1.1	0.10	0.1	0.082	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.28	Q J	5.5	0.075	0.05	0.014	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.75	Q J	5.5	0.059	0.5	0.38	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.9	S J C	5.5	0.042	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.93	J	5.5	0.037	0.1	0.093	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.44	B J	5.5	0.034	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.073	Q B J	5.5	0.054	0.1	0.0073	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	8.2	B	5.5	0.039	0.01	0.082	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.1	B J	5.5	0.064	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDF	14	B	11	0.064	0.001	0.014	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36788-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.66	Q B J	5.1	0.053	0.01	0.0066	ng/kg	1	☼	1613B	Total
OCDD	11	B	10	0.055	0.001	0.011	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.073	B J	5.1	0.048	0.1	0.0073	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.27	B J	5.1	0.065	0.01	0.0027	ng/kg	1	☼	1613B	Total
OCDF	0.27	B J	10	0.048	0.001	0.00027	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-545-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36788-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.078	Q J	5.4	0.029	0.1	0.0078	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.15	Q B J	5.4	0.040	0.01	0.0015	ng/kg	1	☼	1613B	Total
OCDD	0.81	Q B J	11	0.046	0.001	0.00081	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.060	Q J	5.4	0.036	0.5	0.030	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.079	B J	5.4	0.023	0.1	0.0079	ng/kg	1	☼	1613B	Total
OCDF	0.14	B J	11	0.051	0.001	0.00014	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-547-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36788-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.060	Q J	5.3	0.037	0.5	0.030	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.23	J	5.3	0.026	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.059	Q J	5.3	0.025	0.1	0.0059	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.1	B J	5.3	0.034	0.01	0.021	ng/kg	1	☼	1613B	Total
OCDD	10	B J	11	0.047	0.001	0.010	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.026	Q J	5.3	0.027	0.5	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.032	Q J	5.3	0.021	0.1	0.0032	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.043	Q J	5.3	0.020	0.1	0.0043	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.038	Q B J	5.3	0.020	0.1	0.0038	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.026	Q B J	5.3	0.028	0.1	0.0026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.26	B J	5.3	0.034	0.01	0.0026	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.062	Q B J	5.3	0.046	0.01	0.00062	ng/kg	1	☼	1613B	Total
OCDF	0.22	S B J	11	0.047	0.001	0.00022	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Client Sample ID: SL-547-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36788-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.19	B J	5.6	0.088	0.01	0.0019	ng/kg	1	☼	1613B	Total
OCDD	0.88	Q B J	11	0.12	0.001	0.00088	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.073	Q B J	5.6	0.048	0.1	0.0073	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.13	Q B J	5.6	0.072	0.01	0.0013	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.26	Q B J	5.6	0.13	0.01	0.0026	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-547-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36788-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.18	B J	5.5	0.058	0.01	0.0018	ng/kg	1	☼	1613B	Total
OCDD	0.77	Q B J	11	0.12	0.001	0.00077	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.057	Q B J	5.5	0.069	0.1	0.0057	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.25	Q B J	5.5	0.081	0.01	0.0025	ng/kg	1	☼	1613B	Total
OCDF	0.27	Q B J	11	0.11	0.001	0.00027	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36788-1	SL-542-SA6-SB-0.0-0.5	Solid	12/07/12 07:50	12/08/12 09:00
280-36788-2	SL-542-SA6-SB-3.0-4.0MS	Solid	12/07/12 08:45	12/08/12 09:00
280-36788-3	SL-942-SA6-SB-3.0-4.0	Solid	12/07/12 08:55	12/08/12 09:00
280-36788-4	SL-545-SA6-SB-0.0-0.5	Solid	12/07/12 09:40	12/08/12 09:00
280-36788-5	SL-545-SA6-SB-4.0-5.0	Solid	12/07/12 10:20	12/08/12 09:00
280-36788-6	SL-545-SA6-SB-9.0-10.0	Solid	12/07/12 10:30	12/08/12 09:00
280-36788-7	SL-547-SA6-SB-0.0-0.5	Solid	12/07/12 12:40	12/08/12 09:00
280-36788-8	SL-547-SA6-SB-4.0-5.0	Solid	12/07/12 13:40	12/08/12 09:00
280-36788-9	SL-547-SA6-SB-9.0-10.0	Solid	12/07/12 13:50	12/08/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36788-1

Date Collected: 12/07/12 07:50 — **Matrix: Solid**
Date Received: 12/08/12 09:00 — **Percent Solids: 85**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 02:05	JMN	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2348024	12/13/12 10:10	TN	TAL KNX

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36788-2

Date Collected: 12/07/12 08:45 — **Matrix: Solid**
Date Received: 12/08/12 09:00 — **Percent Solids: 91.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 03:04	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:10	TN	TAL KNX

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36788-3

Date Collected: 12/07/12 08:55 — **Matrix: Solid**
Date Received: 12/08/12 09:00 — **Percent Solids: 91.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 04:05	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:10	TN	TAL KNX

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36788-4

Date Collected: 12/07/12 09:40 — **Matrix: Solid**
Date Received: 12/08/12 09:00 — **Percent Solids: 90.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 05:06	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:11	TN	TAL KNX

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36788-5

Date Collected: 12/07/12 10:20 — **Matrix: Solid**
Date Received: 12/08/12 09:00 — **Percent Solids: 95.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 06:07	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:11	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36788-2

Client Sample ID: SL-545-SA6-SB-9.0-10.0

Lab Sample ID: 280-36788-6
Date Collected: 12/07/12 10:30
Matrix: Solid
Date Received: 12/08/12 09:00
Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 14:34	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:11	TN	TAL KNX

Client Sample ID: SL-547-SA6-SB-0.0-0.5

Lab Sample ID: 280-36788-7
Date Collected: 12/07/12 12:40
Matrix: Solid
Date Received: 12/08/12 09:00
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	01/02/13 13:50	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:11	TN	TAL KNX

Client Sample ID: SL-547-SA6-SB-4.0-5.0

Lab Sample ID: 280-36788-8
Date Collected: 12/07/12 13:40
Matrix: Solid
Date Received: 12/08/12 09:00
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	12/31/12 16:34	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:12	TN	TAL KNX

Client Sample ID: SL-547-SA6-SB-9.0-10.0

Lab Sample ID: 280-36788-9
Date Collected: 12/07/12 13:50
Matrix: Solid
Date Received: 12/08/12 09:00
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2349029_P	12/14/12 16:00		TAL KNX
Total	Analysis	1613B		1			2349029	01/02/13 14:51	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2348024	12/13/12 10:12	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L120404 Analytical Report 1

Sample Receipt Documentation 36

Total Number of Pages 38

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36788-2

CDM - SSFL Area IV

Lot #: H2L120404

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 7, 2013

ANALYTICAL METHODS SUMMARY

H2L120404

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L120404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXJ5L	001	SL-542-SA6-SB-0.0-0.5	12/07/12	07:50
MXJ5R	002	SL-542-SA6-SB-3.0-4.0MS	12/07/12	08:45
MXJ5W	003	SL-942-SA6-SB-3.0-4.0	12/07/12	08:55
MXJ5X	004	SL-545-SA6-SB-0.0-0.5	12/07/12	09:40
MXJ50	005	SL-545-SA6-SB-4.0-5.0	12/07/12	10:20
MXJ51	006	SL-545-SA6-SB-9.0-10.0	12/07/12	10:30
MXJ52	007	SL-547-SA6-SB-0.0-0.5	12/07/12	12:40
MXJ53	008	SL-547-SA6-SB-4.0-5.0	12/07/12	13:40
MXJ54	009	SL-547-SA6-SB-9.0-10.0	12/07/12	13:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L120404

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For sample SL-542-SA6-SB-0.0-0.5 the recovery of internal standard 13C1234789-HpCDF was 22%, exceeding the lower acceptance criterion (26%). The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met. The results are reported in accordance with the standard operating procedure. As indicated by the referenced method, isotope dilution techniques produce results that are independent of internal standard recovery.

For sample SL-545-SA6-SB-4.0-5.0 the recovery of internal standard 13C1234789-HpCDF was 14%, exceeding the lower acceptance criterion (26%). The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met. The results are reported in accordance with the standard operating procedure. As indicated by the referenced method, isotope dilution techniques produce results that are independent of internal standard recovery.

The laboratory control sample, matrix spike and duplicate exhibited low OCDF recoveries. The low recovery on native OCDF was attributed to a problem during extraction and/or clean ups. All OCDF results on this lot should be considered biased low.

All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF.

The percent recovery for native OCDD on the matrix spike and duplicate were below the lower acceptance criterion. The laboratory control sample was within limits for OCDD. Heterogeneity in the distribution of the OCDD in the original sample is the suspected cause.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system

PROJECT NARRATIVE
H2L120404

must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

PROJECT NARRATIVE
H2L120404

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration

PROJECT NARRATIVE
H2L120404

W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:
As = Sum of areas of the target peaks
Qis = ng of internal standard added to sample
Ais = Sum of areas of the internal standard peaks
RRF = mean relative response factor of compound obtained during initial calibration
W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:
1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and

PROJECT NARRATIVE
H2L120404

Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.

3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-542-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 001	**Work Order #....:**	MXJ5L1AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	15
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.2	0.16	1.0	0
1,2,3,7,8-PeCDD	**12/31/12**	**1**	**0.11 Q J**	**5.8**	**0.068**	**1.0**	**0.11**
1,2,3,4,7,8-HxCDD	**12/31/12**	**1**	**0.085 Q J**	**5.8**	**0.037**	**0.1**	**0.0085**
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**0.18 Q J**	**5.8**	**0.036**	**0.1**	**0.018**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**0.20 J**	**5.8**	**0.034**	**0.1**	**0.020**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**5.6 B J**	**5.8**	**0.045**	**0.01**	**0.056**
OCDD	**12/31/12**	**1**	**61 B**	**12**	**0.055**	**0.0003**	**0.018**
2,3,7,8-TCDF	**12/31/12**	**1**	**0.096 Q J**	**1.2**	**0.11**	**0.1**	**0.0096**
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.8	0.067	0.03	0
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.086 Q J**	**5.8**	**0.047**	**0.3**	**0.026**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**0.092 Q J**	**5.8**	**0.040**	**0.1**	**0.0092**
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.072 Q J**	**5.8**	**0.032**	**0.1**	**0.0072**
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.12 Q B J**	**5.8**	**0.023**	**0.1**	**0.012**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.8	0.051	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**0.80 B J**	**5.8**	**0.048**	**0.01**	**0.0080**
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.8	0.15	0.01	0
OCDF	**12/31/12**	**1**	**0.21 B J**	**12**	**0.051**	**0.0003**	**0.000063**
Total TEQ Concentration							**0.30**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	41	(25 - 164)
13C-1,2,3,7,8-PeCDD	76	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	77	(17 - 157)
13C-2,3,7,8-TCDF	39	(24 - 169)
13C-1,2,3,7,8-PeCDF	62	(24 - 185)
13C-2,3,4,7,8-PeCDF	74	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	49	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	55	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	43	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	47	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	22 *	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	48	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-542-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 002	**Work Order #....:**	MXJ5R1AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	8.1
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.0	0.14	1.0	0
1,2,3,7,8-PeCDD	**12/31/12**	**1**	**0.12 Q J**	**5.2**	**0.069**	**1.0**	**0.12**
1,2,3,4,7,8-HxCDD	**12/31/12**	**1**	**0.076 Q J**	**5.2**	**0.037**	**0.1**	**0.0076**
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**0.51 Q J**	**5.2**	**0.038**	**0.1**	**0.051**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**0.29 J**	**5.2**	**0.035**	**0.1**	**0.029**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**22 B**	**5.2**	**0.092**	**0.01**	**0.22**
OCDD	**12/31/12**	**1**	**400 B**	**10**	**0.10**	**0.0003**	**0.12**
2,3,7,8-TCDF	**12/31/12**	**1**	**0.13 Q J**	**1.0**	**0.095**	**0.1**	**0.013**
1,2,3,7,8-PeCDF	**12/31/12**	**1**	**0.059 Q J**	**5.2**	**0.066**	**0.03**	**0.0018**
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.096 Q J**	**5.2**	**0.051**	**0.3**	**0.029**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**0.17 Q J**	**5.2**	**0.034**	**0.1**	**0.017**
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.13 J**	**5.2**	**0.031**	**0.1**	**0.013**
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.23 B J**	**5.2**	**0.026**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.2	0.046	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**1.9 B J**	**5.2**	**0.053**	**0.01**	**0.019**
1,2,3,4,7,8,9-HpCDF	**12/31/12**	**1**	**0.37 Q B J**	**5.2**	**0.11**	**0.01**	**0.0037**
OCDF	**12/31/12**	**1**	**1.6 B J**	**10**	**0.064**	**0.0003**	**0.00048**
Total TEQ Concentration							**0.67**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	50	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	77	(17 - 157)
13C-2,3,7,8-TCDF	47	(24 - 169)
13C-1,2,3,7,8-PeCDF	73	(24 - 185)
13C-2,3,4,7,8-PeCDF	81	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	63	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	53	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	59	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	41	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	58	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-942-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 003	**Work Order #....:**	MXJ5W1AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	8.1
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.090	1.0	0
1,2,3,7,8-PeCDD	**12/31/12**	**1**	**0.19 Q J**	**5.3**	**0.057**	**1.0**	**0.19**
1,2,3,4,7,8-HxCDD	**12/31/12**	**1**	**0.059 Q J**	**5.3**	**0.036**	**0.1**	**0.0059**
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**0.55 J**	**5.3**	**0.039**	**0.1**	**0.055**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**0.23 J**	**5.3**	**0.035**	**0.1**	**0.023**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**22 B**	**5.3**	**0.060**	**0.01**	**0.22**
OCDD	**12/31/12**	**1**	**360 B**	**11**	**0.065**	**0.0003**	**0.11**
2,3,7,8-TCDF	**12/31/12**	**1**	**0.085 Q J**	**1.1**	**0.058**	**0.1**	**0.0085**
1,2,3,7,8-PeCDF	**12/31/12**	**1**	**0.059 J**	**5.3**	**0.052**	**0.03**	**0.0018**
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.12 J**	**5.3**	**0.042**	**0.3**	**0.036**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**0.22 J**	**5.3**	**0.030**	**0.1**	**0.022**
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.097 Q J**	**5.3**	**0.027**	**0.1**	**0.0097**
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.037 Q B J**	**5.3**	**0.026**	**0.1**	**0.0037**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.3	0.031	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**1.9 B J**	**5.3**	**0.036**	**0.01**	**0.019**
1,2,3,4,7,8,9-HpCDF	**12/31/12**	**1**	**0.32 B J**	**5.3**	**0.050**	**0.01**	**0.0032**
OCDF	**12/31/12**	**1**	**3.7 B J**	**11**	**0.054**	**0.0003**	**0.0011**
Total TEQ Concentration							**0.71**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	91	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	92	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	91	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	82	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-942-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 004	**Work Order #....:**	MXJ5X1AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	9.8
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.13	1.0	0
1,2,3,7,8-PeCDD	**12/31/12**	**1**	**0.13 Q J**	**5.5**	**0.088**	**1.0**	**0.13**
1,2,3,4,7,8-HxCDD	**12/31/12**	**1**	**0.19 Q J**	**5.5**	**0.053**	**0.1**	**0.019**
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**1.7 J**	**5.5**	**0.055**	**0.1**	**0.17**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**0.53 C J**	**5.5**	**0.051**	**0.1**	**0.053**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**44 B**	**5.5**	**0.052**	**0.01**	**0.44**
OCDD	**12/31/12**	**1**	**730 B**	**11**	**0.11**	**0.0003**	**0.22**
2,3,7,8-TCDF	**12/31/12**	**1**	**0.82 J**	**1.1**	**0.10**	**0.1**	**0.082**
1,2,3,7,8-PeCDF	**12/31/12**	**1**	**0.28 Q J**	**5.5**	**0.075**	**0.03**	**0.0084**
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.75 Q J**	**5.5**	**0.059**	**0.3**	**0.22**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**1.9 S J C**	**5.5**	**0.042**	**0.1**	**0.19**
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.93 J**	**5.5**	**0.037**	**0.1**	**0.093**
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.44 B J**	**5.5**	**0.034**	**0.1**	**0.044**
1,2,3,7,8,9-HxCDF	**12/31/12**	**1**	**0.073 Q B J**	**5.5**	**0.054**	**0.1**	**0.0073**
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**8.2 B**	**5.5**	**0.039**	**0.01**	**0.082**
1,2,3,4,7,8,9-HpCDF	**12/31/12**	**1**	**1.1 B J**	**5.5**	**0.064**	**0.01**	**0.011**
OCDF	**12/31/12**	**1**	**14 B**	**11**	**0.064**	**0.0003**	**0.0042**
Total TEQ Concentration							**1.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	55	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	98	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	96	(23 - 140)
13C-OCDD	92	(17 - 157)
13C-2,3,7,8-TCDF	50	(24 - 169)
13C-1,2,3,7,8-PeCDF	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	65	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	67	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 005	**Work Order #....:**	MXJ501AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	4.3
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.0	0.19	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.1	0.087	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.1	0.046	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.1	0.049	0.1	0
1,2,3,7,8,9-HxCDD	12/31/12	1	ND	5.1	0.045	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**0.66 Q B J**	**5.1**	**0.053**	**0.01**	**0.0066**
OCDD	**12/31/12**	**1**	**11 B**	**10**	**0.055**	**0.0003**	**0.0033**
2,3,7,8-TCDF	12/31/12	1	ND	1.0	0.13	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.1	0.065	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.1	0.045	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.1	0.029	0.1	0
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.1	0.025	0.1	0
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.1	0.020	0.1	0
1,2,3,7,8,9-HxCDF	**12/31/12**	**1**	**0.073 B J**	**5.1**	**0.048**	**0.1**	**0.0073**
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**0.27 B J**	**5.1**	**0.065**	**0.01**	**0.0027**
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.1	0.32	0.01	0
OCDF	**12/31/12**	**1**	**0.27 B J**	**10**	**0.048**	**0.0003**	**0.000081**
Total TEQ Concentration							**0.020**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	39	(25 - 164)
13C-1,2,3,7,8-PeCDD	78	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	84	(17 - 157)
13C-2,3,7,8-TCDF	36	(24 - 169)
13C-1,2,3,7,8-PeCDF	65	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	58	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	61	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	42	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	41	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	14 *	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	43	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 006	**Work Order #....:**	MXJ511AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	8.5
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.4	0.056	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.4	0.031	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.4	0.031	0.1	0
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**0.078 Q J**	**5.4**	**0.029**	**0.1**	**0.0078**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**0.15 Q B J**	**5.4**	**0.040**	**0.01**	**0.0015**
OCDD	**12/31/12**	**1**	**0.81 Q B J**	**11**	**0.046**	**0.0003**	**0.00024**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	0.064	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.4	0.046	0.03	0
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.060 Q J**	**5.4**	**0.036**	**0.3**	**0.018**
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.4	0.027	0.1	0
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.4	0.023	0.1	0
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.079 B J**	**5.4**	**0.023**	**0.1**	**0.0079**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.4	0.048	0.1	0
1,2,3,4,6,7,8-HpCDF	12/31/12	1	ND	5.4	0.029	0.01	0
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.4	0.080	0.01	0
OCDF	**12/31/12**	**1**	**0.14 B J**	**11**	**0.051**	**0.0003**	**0.000042**
Total TEQ Concentration							**0.035**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	53	(25 - 164)
13C-1,2,3,7,8-PeCDD	77	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	118	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	102	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	122	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	56	(24 - 169)
13C-1,2,3,7,8-PeCDF	71	(24 - 185)
13C-2,3,4,7,8-PeCDF	78	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	94	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	96	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	97	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	57	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	87	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	49	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	60	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-545-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 007	**Work Order #....:**	MXJ521AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	7.4
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.043	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.060 Q J**	**5.3**	**0.037**	**1.0**	**0.060**
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.3	0.026	0.1	0
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**0.23 J**	**5.3**	**0.026**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**0.059 Q J**	**5.3**	**0.025**	**0.1**	**0.0059**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**2.1 B J**	**5.3**	**0.034**	**0.01**	**0.021**
OCDD	**1/2/13**	**1**	**10 B J**	**11**	**0.047**	**0.0003**	**0.0030**
2,3,7,8-TCDF	1/2/13	1	ND	1.1	0.030	0.1	0
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.3	0.049	0.03	0
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.026 Q J**	**5.3**	**0.027**	**0.3**	**0.0078**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.032 Q J**	**5.3**	**0.021**	**0.1**	**0.0032**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.043 Q J**	**5.3**	**0.020**	**0.1**	**0.0043**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.038 Q B J**	**5.3**	**0.020**	**0.1**	**0.0038**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.026 Q B J**	**5.3**	**0.028**	**0.1**	**0.0026**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**0.26 B J**	**5.3**	**0.034**	**0.01**	**0.0026**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**0.062 Q B J**	**5.3**	**0.046**	**0.01**	**0.00062**
OCDF	**1/2/13**	**1**	**0.22 S B J**	**11**	**0.047**	**0.0003**	**0.000066**
Total TEQ Concentration							**0.14**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	99	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	52	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	77	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	101	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	85	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	91	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	64	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 008	**Work Order #....:**	MXJ531AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	11
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.6	0.088	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.6	0.068	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.6	0.073	0.1	0
1,2,3,7,8,9-HxCDD	12/31/12	1	ND	5.6	0.066	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**0.19 B J**	**5.6**	**0.088**	**0.01**	**0.0019**
OCDD	**12/31/12**	**1**	**0.88 Q B J**	**11**	**0.12**	**0.0003**	**0.00026**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	0.083	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.6	0.080	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.6	0.061	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.6	0.049	0.1	0
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.6	0.045	0.1	0
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.073 Q B J**	**5.6**	**0.048**	**0.1**	**0.0073**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.6	0.062	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**0.13 Q B J**	**5.6**	**0.072**	**0.01**	**0.0013**
1,2,3,4,7,8,9-HpCDF	**12/31/12**	**1**	**0.26 Q B J**	**5.6**	**0.13**	**0.01**	**0.0026**
OCDF	12/31/12	1	ND	11	0.096	0.0003	0
Total TEQ Concentration							**0.013**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	99	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	97	(23 - 140)
13C-OCDD	65	(17 - 157)
13C-2,3,7,8-TCDF	67	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	92	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	52	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L120404 - 009	**Work Order #....:**	MXJ541AC	**Matrix.....:**	SO
Date Sampled....:	12/07/12	**Date Received....:**	12/12/12	**Units....:**	ng/kg
Prep Date....:	12/14/12			**Dilution Factor:**	1
Prep Batch # ....:	2349029			**Percent Moisture:**	9.2
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	1/2/13	1	ND	5.5	0.072	1.0	0
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.5	0.043	0.1	0
1,2,3,6,7,8-HxCDD	1/2/13	1	ND	5.5	0.045	0.1	0
1,2,3,7,8,9-HxCDD	1/2/13	1	ND	5.5	0.041	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**0.18 B J**	**5.5**	**0.058**	**0.01**	**0.0018**
OCDD	**1/2/13**	**1**	**0.77 Q B J**	**11**	**0.12**	**0.0003**	**0.00023**
2,3,7,8-TCDF	1/2/13	1	ND	1.1	0.070	0.1	0
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.5	0.057	0.03	0
2,3,4,7,8-PeCDF	1/2/13	1	ND	5.5	0.041	0.3	0
1,2,3,4,7,8-HxCDF	1/2/13	1	ND	5.5	0.047	0.1	0
1,2,3,6,7,8-HxCDF	1/2/13	1	ND	5.5	0.039	0.1	0
2,3,4,6,7,8-HxCDF	1/2/13	1	ND	5.5	0.032	0.1	0
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.057 Q B J**	**5.5**	**0.069**	**0.1**	**0.0057**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**0.25 Q B J**	**5.5**	**0.081**	**0.01**	**0.0025**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.5	0.16	0.01	0
OCDF	**1/2/13**	**1**	**0.27 Q B J**	**11**	**0.11**	**0.0003**	**0.000081**
Total TEQ Concentration							**0.010**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	82	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	105	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	63	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
13C-2,3,4,7,8-PeCDF	97	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	63	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	48	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	46	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	33	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	72	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-547-SA6-SB-9.0-10.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L140000 - 029B	**Work Order #....:**	MXK5N1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/14/12	**Analysis Date....:**	12/28/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2349029				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.15	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.057	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.036	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.037	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.034	ng/kg
1,2,3,4,6,7,8-HpCDD	**0.084**	**Q J**	**5.0**	**0.036**	**ng/kg**
OCDD	**0.45**	**J**	**10**	**0.041**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.090	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.054	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.042	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.028	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.028	ng/kg
2,3,4,6,7,8-HxCDF	**0.045**	**Q J**	**5.0**	**0.022**	**ng/kg**
1,2,3,7,8,9-HxCDF	**0.043**	**Q J**	**5.0**	**0.039**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.051**	**Q J**	**5.0**	**0.038**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.096**	**Q J**	**5.0**	**0.090**	**ng/kg**
OCDF	**0.19**	**J**	**10**	**0.048**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	51	25 - 164
13C-1,2,3,7,8-PeCDD	83	25 - 181
13C-1,2,3,4,7,8-HxCDD	88	32 - 141
13C-1,2,3,6,7,8-HxCDD	76	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	92	23 - 140
13C-OCDD	86	17 - 157
13C-2,3,7,8-TCDF	50	24 - 169
13C-1,2,3,7,8-PeCDF	75	24 - 185
13C-2,3,4,7,8-PeCDF	81	21 - 178
13C-1,2,3,4,7,8-HxCDF	71	26 - 152
13C-1,2,3,6,7,8-HxCDF	66	26 - 123
13C-2,3,4,6,7,8-HxCDF	80	28 - 136
13C-1,2,3,7,8,9-HxCDF	61	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	63	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	41	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L140000 - 029B	**Work Order #....:**	MXK5N1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/14/12	**Analysis Date....:**	12/28/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2349029				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	58	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L120404	**Work Order # ...:**	MXK5N1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L140000 - 029				
Prep Date .....:	12/14/12	**Analysis Date ..:**	12/30/12		
Prep Batch # ...:	2349029				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.6**	**ng/kg**	**108**	**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**109**	**ng/kg**	**109**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**101**	**ng/kg**	**101**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**98.8**	**ng/kg**	**99**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**99.7**	**ng/kg**	**100**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**100**	**ng/kg**	**100 B**	**(70 - 140)**
OCDD	**200**	**200**	**ng/kg**	**100 B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.8**	**ng/kg**	**99**	**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**100**	**ng/kg**	**100**	**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**103**	**ng/kg**	**103**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**103**	**ng/kg**	**103**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**102**	**ng/kg**	**102**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**102**	**ng/kg**	**102 B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**103**	**ng/kg**	**103 B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**96.9**	**ng/kg**	**97 B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**96.7**	**ng/kg**	**97 B**	**(78 - 138)**
OCDF	**200**	**53.7**	**ng/kg**	**27 a B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	(20 - 175)
13C-1,2,3,7,8-PeCDD	93	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	92	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	78	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	97	(26 - 166)
13C-OCDD	95	(13 - 199)
13C-2,3,7,8-TCDF	63	(22 - 152)
13C-1,2,3,7,8-PeCDF	89	(21 - 192)
13C-2,3,4,7,8-PeCDF	90	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	71	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	69	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	81	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	61	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	63	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	42	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	70	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L120404	**Work Order # ...:**	MXJ5R1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L120404 - 002		MXJ5R1AE-MSD		
Prep Date .....:	12/14/12	**Analysis Date ..:**	12/31/12		
Prep Batch # ...:	2349029				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**ND**	**20.9**	**21.8**	ng/kg	**104**	(67 - 158)		
	ND	**20.9**	**22.7**	ng/kg	**109**	(67 - 158)	**4.0**	(0 - 25)
1,2,3,7,8-PeCDD	**0.12**	**105**	**112**	ng/kg	**106**	(70 - 142)		
	0.12	**105**	**111**	ng/kg	**106**	(70 - 142)	**0.56**	(0 - 25)
1,2,3,4,7,8-HxCDD	**0.076**	**105**	**105**	ng/kg	**101**	(70 - 164)		
	0.076	**105**	**107**	ng/kg	**102**	(70 - 164)	**1.4**	(0 - 25)
1,2,3,6,7,8-HxCDD	**0.51**	**105**	**105**	ng/kg	**100**	(76 - 134)		
	0.51	**105**	**106**	ng/kg	**101**	(76 - 134)	**1.2**	(0 - 25)
1,2,3,7,8,9-HxCDD	**0.29**	**105**	**96.6**	ng/kg	**92**	(64 - 162)		
	0.29	**105**	**102**	ng/kg	**98**	(64 - 162)	**5.8**	(0 - 25)
1,2,3,4,6,7,8-HpCDD	**22**	**105**	**119**	ng/kg	**93 B**	(70 - 140)		
	22	**105**	**124**	ng/kg	**97 B**	(70 - 140)	**3.7**	(0 - 25)
OCDD	**400**	**209**	**484**	ng/kg	**41 a B**	(78 - 144)		
	400	**209**	**560**	ng/kg	**77 a B**	(78 - 144)	**15**	(0 - 25)
2,3,7,8-TCDF	**0.13**	**20.9**	**20.9**	ng/kg	**99 X**	(75 - 158)		
	0.13	**20.9**	**21.3**	ng/kg	**101 X**	(75 - 158)	**1.8**	(0 - 25)
1,2,3,7,8-PeCDF	**0.059**	**105**	**103**	ng/kg	**98**	(80 - 134)		
	0.059	**105**	**103**	ng/kg	**98**	(80 - 134)	**0.40**	(0 - 25)
2,3,4,7,8-PeCDF	**0.096**	**105**	**104**	ng/kg	**99**	(68 - 160)		
	0.096	**105**	**107**	ng/kg	**103**	(68 - 160)	**3.3**	(0 - 25)
1,2,3,4,7,8-HxCDF	**0.17**	**105**	**108**	ng/kg	**103**	(72 - 134)		
	0.17	**105**	**112**	ng/kg	**107 S**	(72 - 134)	**3.2**	(0 - 25)
1,2,3,6,7,8-HxCDF	**0.13**	**105**	**107**	ng/kg	**102**	(84 - 130)		
	0.13	**105**	**109**	ng/kg	**104**	(84 - 130)	**1.7**	(0 - 25)
2,3,4,6,7,8-HxCDF	**0.23**	**105**	**107**	ng/kg	**102 B**	(70 - 156)		
	0.23	**105**	**109**	ng/kg	**104 B**	(70 - 156)	**1.6**	(0 - 25)
1,2,3,7,8,9-HxCDF	**ND**	**105**	**107**	ng/kg	**102 B**	(78 - 130)		
	ND	**105**	**106**	ng/kg	**101 B**	(78 - 130)	**0.73**	(0 - 25)
1,2,3,4,6,7,8-HpCDF	**1.9**	**105**	**106**	ng/kg	**100 B**	(82 - 122)		
	1.9	**105**	**108**	ng/kg	**101 B**	(82 - 122)	**1.8**	(0 - 25)
1,2,3,4,7,8,9-HpCDF	**0.37**	**105**	**103**	ng/kg	**98 B**	(78 - 138)		
	0.37	**105**	**107**	ng/kg	**102 B**	(78 - 138)	**3.9**	(0 - 25)
OCDF	**1.6**	**209**	**124**	ng/kg	**58 a B**	(63 - 170)		
	1.6	**209**	**131**	ng/kg	**62 a B**	(63 - 170)	**5.6**	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L120404	**Work Order # ...:**	MXJ5R1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L120404 - 002		MXJ5R1AE-MSD		
Prep Date .....:	12/14/12	**Analysis Date ..:**	12/31/12		
Prep Batch # ...:	2349029				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	57	(25 - 164)
	57	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
	91	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
	92	(23 - 140)
13C-OCDD	86	(17 - 157)
	87	(17 - 157)
13C-2,3,7,8-TCDF	52	(24 - 169)
	54	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
	69	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	65	(26 - 138)
	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	63	(35 - 197)
	63	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L120404	**Work Order # ...:**	MXJ5R1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L120404 - 002		MXJ5R1AE-MSD		
Prep Date .....:	12/14/12	**Analysis Date ..:**	12/31/12		
Prep Batch # ...:	2349029				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

S Ion suppression.

X See project narrative.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L120404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-163135.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 280-36788-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/18/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

CUSTODY SEALS INTACT
RECEIVED AT 0.6°
BKD 12/12/12
COOLER FEDX #
5490 3693 2657

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1316B Dixoins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-542-SA6-SB-0.0-0.5 (280-36788-1)	12/7/12	07:50 Pacific		Solid			X	X	2	TEQs required
SL-542-SA6-SB-3.0-4.0MS (280-36788-2)	12/7/12	08:45 Pacific		Solid			X	X	4	TEQs required
SL-542-SA6-SB-3.0-4.0MS (280-36788-2MS)	12/7/12	08:45 Pacific	MS	Solid			X		1	TEQs required
SL-542-SA6-SB-3.0-4.0MS (280-36788-2MSD)	12/7/12	08:45 Pacific	MSD	Solid			X		1	TEQs required
SL-942-SA6-SB-3.0-4.0 (280-36788-3)	12/7/12	08:55 Pacific		Solid			X	X	2	TEQs required
SL-545-SA6-SB-0.0-0.5 (280-36788-4)	12/7/12	09:40 Pacific		Solid			X	X	2	TEQs required
SL-545-SA6-SB-4.0-5.0 (280-36788-5)	12/7/12	10:20 Pacific		Solid			X	X	2	TEQs required
SL-545-SA6-SB-9.0-10.0 (280-36788-6)	12/7/12	10:30 Pacific		Solid			X	X	2	TEQs required
SL-547-SA6-SB-0.0-0.5 (280-36788-7)	12/7/12	12:40 Pacific		Solid			X	X	2	TEQs required
SL-547-SA6-SB-4.0-5.0 (280-36788-8)	12/7/12	13:40 Pacific		Solid			X	X	2	TEQs required
SL-547-SA6-SB-9.0-10.0 (280-36788-9)	12/7/12	13:50 Pacific		Solid			X	X	2	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 12/11/12 1600	Company TA	Received by:	Date/Time: 12-12-12 09:56	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L120404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12-12-12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/7/2012
CarrierName: FedEx
AirbillNo: 794251446929

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121207-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-542-SA6-SB-0.0-0.5	12/7/12 07:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-542-SA6-SB-3.0-4.0MS	12/7/12 08:45	SO	None	3 - 4 oz glass	10 day									X																							MS/MSD
SL-942-SA6-SB-3.0-4.0	12/7/12 08:55	SO	None	1 - 4 oz glass	10 day									X																							
SL-545-SA6-SB-0.0-0.5	12/7/12 09:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-545-SA6-SB-4.0-5.0	12/7/12 10:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-545-SA6-SB-9.0-10.0	12/7/12 10:30	SO	None	1 - 4 oz glass	10 day									X																							
SL-547-SA6-SB-0.0-0.5	12/7/12 12:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-547-SA6-SB-4.0-5.0	12/7/12 13:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-547-SA6-SB-9.0-10.0	12/7/12 13:50	SO	None	1 - 4 oz glass	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/07/2012	1500	[illegible]	12/8/12	0900						

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/7/2012
CarrierName: FedEx
AirbillNo: 794251446929

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121207-03
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-120712	12/7/12 15:00	WQ	None	1 - 125 mL Poly	10 day												X																				FILTERED IN FIELD
EB2-120712	12/7/12 15:30	WQ	None	1 - 125 mL Poly	10 day												X																				FILTERED IN FIELD

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/07/2012	1500	[illegible]	12/8/12	0900						

3.8 cc
12/8/12
FP

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36788-2

Login Number: 36788

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 10, 2012 7:46 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36788, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the nine soil samples and two equipment blanks received at the laboratories on 12/8/12.

The samples were received in acceptable condition at a temperature of 3.8℃.

RECEIPT DISCREPANCIES: None

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36788-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089129]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36846-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36846-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/26/2012 10:26:21 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 8
Detection Summary 10
Method Summary 31
Sample Summary 32
Client Sample Results 34
QC Sample Results 87
QC Association 106
Chronicle 120
Chain of Custody 138
Receipt Checklists 142

Job ID: 280-36846-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36846-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Thirty-seven soil samples and one trip blank were received under Chain of Custody on December 12, 2012. The samples were received in good condition at temperatures of 2.8°C, 4.0°C, 2.8°C and 2.2°C.

Due to a transit issue, FedEx was unable to deliver the samples to the lab on Tuesday as scheduled. Due of this delay, the Encore volume expired in transit for samples SL-557-SA6-SB-6.0 (280-36846-6), SL-603-SA6-SB-4.5 (280-36846-11) and SL-604-SA6-SB-4.0 (280-36846-16). The client was notified and instructed the laboratory to proceed with the requested analyses. Analysis prepared or performed outside the recommended sample holding time have been flagged “H”.

SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that was homogenized. Prior to homogenization, sample volume required for the volatile analyses was logged as one distinct sample, while the volume requiring homogenization was logged with the same sample ID as a second laboratory sample.

The percent moisture analysis was performed on the homogenized sample volume, per project requirements. Data was uploaded from the homogenized moisture results to the associated non-homogenized samples per the project set-up to report the data on a dry weight basis.

Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The percent moisture result from the sample interval surrounding the encore sample has been applied to the TPH-GRO 8015B and/or VOCs 8260B results to report the data on a dry weight basis per project requirements and client instructions.

The 8315 Formaldehyde analysis presented in this report was performed at TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, 615-726-0177.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36846-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles / PAHs - SW846 Method 8270C-SIM
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interference, the following samples had to be analyzed at a dilution, as detailed below. The reporting limits have been adjusted relative to the dilutions required. The analyst noted that the sample extracts were dark in color and extremely viscous, and

Job ID: 280-36846-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

analysis at a lesser dilution would jeopardize the integrity of the instrument.

SL-557-SA6-SB-0.0-0.5 (280-36846-2) was analyzed at a 10X dilution
SL-603-SA6-SB-0.0-0.5 (280-36846-7) was analyzed at a 20X dilution
SL-603-SA6-SB-4.0-5.0 (280-36846-9) was analyzed at a 20X dilution
SL-604-SA6-SB-0.0-0.5 (280-36846-12) was analyzed at a 10X dilution
SL-653-SA6-SB-0.0-0.5 (280-36846-17) was analyzed at a 10X dilution
SL-654A-SA6-SB-0.0-0.5 (280-36846-19) was analyzed at a 10X dilution
SL-601-SA6-SB-0.0-0.5 (280-36846-34) was analyzed at a 10X dilution
SL-666-SA6-SB-0.0-0.5 (280-36846-41) was analyzed at a 20X dilution
SL-668-SA6-SB-0.0-0.5 (280-36846-45) was analyzed at a 20X dilution

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-557-SA6-SB-0.0-0.5 (280-36846-2), SL-603-SA6-SB-0.0-0.5 (280-36846-7), SL-603-SA6-SB-4.0-5.0 (280-36846-9), SL-604-SA6-SB-0.0-0.5 (280-36846-12), SL-653-SA6-SB-0.0-0.5 (280-36846-17), SL-654A-SA6-SB-0.0-0.5 (280-36846-19), SL-601-SA6-SB-0.0-0.5 (280-36846-34), SL-666-SA6-SB-0.0-0.5 (280-36846-41) and SL-668-SA6-SB-0.0-0.5 (280-36846-45) because the extracts were diluted beyond the ability to quantitate recoveries.

The MS/MSD analyses associated with prep batch 280-151884 were performed on sample SL-557-SA6-SB-0.0-0.5 (280-36846-2). Spike compound recoveries, RPD data and surrogate recoveries could not be calculated because the sample was diluted beyond the ability to quantitate recoveries. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

GC Volatiles / GRO - SW846 Method 8015B
A low level of GRO (C4-C12) was detected in the method blank associated with prep batch 280-151823. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. Usability of the sample data is not compromised.

Matrix spikes were not requested for prep batch 280-151823. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were observed.

GC Semivolatiles / DRO - SW846 Method 8015B
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to analytes present above the linear calibration curve, the following samples had to be analyzed at a dilution, as detailed below. The reporting limits have been adjusted relative to the dilutions required.

SL-603-SA6-SB-0.0-0.5 (280-36846-7) was analyzed at a 5X dilution
SL-603-SA6-SB-4.0-5.0 (280-36846-9) was analyzed at a 10X dilution
SL-604-SA6-SB-0.0-0.5 (280-36846-12) was analyzed at a 5X dilution

Surrogate recoveries could not be reliably calculated for the diluted analysis of samples SL-603-SA6-SB-0.0-0.5 (280-36846-7), SL-603-SA6-SB-4.0-5.0 (280-36846-9) and SL-604-SA6-SB-0.0-0.5 (280-36846-12) because the extracts were diluted beyond the ability to quantitate recoveries.

A low level of Total Petroleum Hydrocarbons (C8-C40) was detected in the method blank associated with prep batch 280-152022. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

Job ID: 280-36846-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

No other anomalies were observed.

GC Semivolatiles / PCBs/PCTs - SW846 Method 8082A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

The laboratory noted that the samples presented in this report required a sulfuric acid clean-up to reduce matrix interferences.

The following samples appeared to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration. The samples have been quantified and reported as detailed below. Due to the poor match with the Aroclor standards, there is increased qualitative and quantitative uncertainty associated with this result.

SL-557-SA6-SB-0.0-0.5 (280-36846-3) has been quantified and reported as Aroclor 1254 and Aroclor 1260
SL-654A-SA6-SB-0.0-0.5 (280-36846-20) has been quantified and reported as Aroclor 1248
SL-654A-SA6-SB-2.0-3.0 (280-36846-21) has been quantified and reported as Aroclor 1248
SL-654B-SA6-SB-0.0-0.5 (280-36846-22) has been quantified and reported as Aroclor 1248
SL-654C-SA6-SB-0.0-0.5 (280-36846-23) has been quantified and reported as Aroclor 1248
SL-608-SA6-SB-0.0-0.5 (280-36846-40) has been quantified and reported as Aroclor 1254

Sample SL-557-SA6-SB-0.0-0.5 (280-36846-3) contained more than one Arochlor component. Please note the results are estimated due to shared peaks.

Surrogate Decachlorobiphenyl was recovered below the QC control limits in sample SL-653-SA6-SB-0.0-0.5 (280-36846-18) at 43% (limits 45-120%). This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to elevated levels of Aroclor 1248 present above the linear calibration curve, sample SL-654A-SA6-SB-0.0-0.5 (280-36846-20) had to be analyzed at a 4X dilution. The reporting limits have been adjusted relative to the dilution required.

Surrogate recoveries could not be reliably calculated for the diluted analysis of sample SL-654A-SA6-SB-0.0-0.5 (280-36846-20) because the extract was diluted beyond the ability to quantitate recoveries.

The MS/MSD analyses associated with prep batch 280-152076 were performed on sample SL-557-SA6-SB-0.0-0.5 (280-36846-3). The MS/MSD exhibited the matrix spike (MS) percent recovery and relative percent difference (RPD) data outside the QC control limits for Aroclor 5460. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The MS/MSD analyses associated with prep batch 280-152181 were performed on sample SL-601-SA6-SB-4.0-5.0 (280-36846-37). The MS/MSD exhibited percent recoveries outside the QC control limits for Aroclor 5460. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

HPLC / Formaldehyde - SW846 Method 8315A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

A low level of Formaldehyde was detected in the method blank associated with prep batch 490-44390. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level

Job ID: 280-36846-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

greater than one half the reporting limit, corrective action was deemed unnecessary. Usability of the sample data is not compromised.

No other anomalies were observed.

Metals - SW846 Methods 6010C / 6020A / 7471B
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

A low level of Lithium was detected in the method 6010C blank associated with prep batch 280-151989. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

Low levels of Iron and Manganese were detected in the method 6010C blank associated with prep batch 280-152226. The values should be considered estimates, and have been flagged “J”. Because the concentrations in the method blank were not present at levels greater than the reporting limits, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

A low level of Thallium was detected in the method 6020A blank associated with prep batch 280-151990. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

A low level of Selenium was detected in the method 6020A blank associated with prep batch 280-152228. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. The associated positive results in the analytical report have been flagged with a “B”. Usability of the sample data is not compromised.

The 6010C MS/MSD analyses associated with prep batch 280-151989 were performed on sample SL-601-SA6-SB-0.0-0.5 (280-36846-35). The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron, Manganese and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6010C MS/MSD analyses associated with prep batch 280-152226 were performed on sample SL-684-SA6-SB-0.0-0.5 (280-36846-48). The MS/MSD exhibited percent recoveries outside the QC control limits for Aluminum, Iron, Manganese and Titanium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum, Iron, Manganese and Titanium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The 6020A MS/MSD analyses associated with prep batch 280-151990 were performed on sample SL-598-SA6-SB-4.0-5.0 (280-36846-32). The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony and Vanadium. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium due to elevated concentrations present in the parent sample. The presence of the ‘4’ qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Job ID: 280-36846-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

The 6020A MS/MSD analyses associated with prep batch 280-152228 were performed on sample SL-684-SA6-SB-0.0-0.5 (280-36846-48). The MS/MSD exhibited percent recoveries outside the QC control limits for Antimony. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The Continuing Calibration Verification (CCVL) standard associated with analytical batch 280-152324 was above the control limits for Lithium during Method 6010C analysis. This is an indicator that the data may be biased high. As there was no detectable concentration of this compound present above the reporting limit in the associated samples, corrective action is deemed unnecessary. The associated results in the analytical report have been flagged with "^".

The Continuing Calibration Verification (CCVL) standard associated with analytical batch 280-152658 was above the control limits for Sodium during Method 6010C analysis. This is an indicator that the data may be biased high. As there was no detectable concentration of this compound present above the reporting limit in the associated samples, corrective action is deemed unnecessary. The associated results in the analytical report have been flagged with "^".

No other anomalies were observed.

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: TB-121012 — Lab Sample ID: 280-36846-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C4-C12)	10	J	25	10	ug/L	1		8015B	Total/NA

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	3.5	J	110	2.9	ug/Kg	10	☼	8270C SIM	Total/NA
2-Methylnaphthalene	5.0	J	110	3.5	ug/Kg	10	☼	8270C SIM	Total/NA
Acenaphthene	6.0	J	110	1.8	ug/Kg	10	☼	8270C SIM	Total/NA
Acenaphthylene	6.1	J	110	1.9	ug/Kg	10	☼	8270C SIM	Total/NA
Anthracene	26	J	110	8.2	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[a]anthracene	200		110	10	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[a]pyrene	170		110	8.4	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	230		110	14	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	87	J	110	12	ug/Kg	10	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	86	J	110	11	ug/Kg	10	☼	8270C SIM	Total/NA
Chrysene	290		110	11	ug/Kg	10	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	22	J	110	15	ug/Kg	10	☼	8270C SIM	Total/NA
Fluoranthene	370		110	11	ug/Kg	10	☼	8270C SIM	Total/NA
Fluorene	7.3	J	110	5.3	ug/Kg	10	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	96	J	110	12	ug/Kg	10	☼	8270C SIM	Total/NA
Naphthalene	6.5	J	110	3.7	ug/Kg	10	☼	8270C SIM	Total/NA
Phenanthrene	140		110	12	ug/Kg	10	☼	8270C SIM	Total/NA
Pyrene	400		110	12	ug/Kg	10	☼	8270C SIM	Total/NA
BaP Equivalence	250		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	82		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	11		5.2	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	58		5.2	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	150	B	4.2	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	54		18	5.9	ug/Kg	1	☼	8082A	Total/NA
Aroclor 1260	39		18	2.8	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	31	J	53	18	ug/Kg	1	☼	8082A	Total/NA
Aluminum	13000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	1.2	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		56	16	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		38	4.2	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J ^ B	41	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4200		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	550	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	420		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3800	J	7200	46	mg/Kg	1	☼	6010C	Total/NA
Sodium	97	J	560	66	mg/Kg	1	☼	6010C	Total/NA
Strontium	16		0.55	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	870		1.1	0.16	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.6	J	9.6	0.40	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.044	J	9.0	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.2	J	16	0.052	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-557-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	99	J	150	0.073	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.61	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.66	J	1.0	0.0097	mg/Kg	1	☼	6020A	Total/NA
Chromium	35	J	38	0.079	mg/Kg	1	☼	6020A	Total/NA
Cobalt	7.0	J	22	0.0069	mg/Kg	1	☼	6020A	Total/NA
Copper	18	J	30	0.074	mg/Kg	1	☼	6020A	Total/NA
Lead	89		35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.85	J	5.5	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	29	J	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.86		0.68	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	1.5		0.82	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.29	J B	0.48	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	64	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	83	J	110	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.028		0.023	0.0064	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.46		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	1.7	J B	4.3	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	21000		19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Calcium	6800		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	36000		32	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	59	B	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8100		9.4	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	480		460	0.094	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	680		9.4	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	3500	J	6000	38	mg/Kg	1	☼	6010C	Total/NA
Sodium	630		470	55	mg/Kg	1	☼	6010C	Total/NA
Strontium	27		0.46	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	2.9	J	10	0.85	mg/Kg	1	☼	6010C	Total/NA
Titanium	1200		0.93	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.1	J	8.0	0.33	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.015	J	8.1	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	7.2	J	14	0.047	mg/Kg	1	☼	6020A	Total/NA
Barium	150		130	0.066	mg/Kg	1	☼	6020A	Total/NA
Beryllium	1.2		1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.59	J	0.94	0.0088	mg/Kg	1	☼	6020A	Total/NA
Chromium	29	J	34	0.071	mg/Kg	1	☼	6020A	Total/NA
Cobalt	13	J	20	0.0062	mg/Kg	1	☼	6020A	Total/NA
Copper	22	J	27	0.067	mg/Kg	1	☼	6020A	Total/NA
Lead	17	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.33	J	5.0	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	22	J	27	0.024	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-557-SA6-SB-5.5-6.5 (Continued) — Lab Sample ID: 280-36846-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.3		0.61	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.033	J	0.74	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.38	J B	0.43	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	49	J	58	0.036	mg/Kg	1	☼	6020A	Total/NA
Zinc	110		100	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.011	J	0.026	0.0071	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.61		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.9		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-557-SA6-SB-6.0 — Lab Sample ID: 280-36846-6

No Detections

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	4.9	J	210	3.3	ug/Kg	20	☼	8270C SIM	Total/NA
Acenaphthylene	3.8	J	210	3.5	ug/Kg	20	☼	8270C SIM	Total/NA
Anthracene	24	J	210	15	ug/Kg	20	☼	8270C SIM	Total/NA
Benzo[a]anthracene	210		210	19	ug/Kg	20	☼	8270C SIM	Total/NA
Benzo[a]pyrene	190	J	210	15	ug/Kg	20	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	270		210	25	ug/Kg	20	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	100	J	210	23	ug/Kg	20	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	97	J	210	21	ug/Kg	20	☼	8270C SIM	Total/NA
Chrysene	300		210	21	ug/Kg	20	☼	8270C SIM	Total/NA
Fluoranthene	360		210	21	ug/Kg	20	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	110	J	210	23	ug/Kg	20	☼	8270C SIM	Total/NA
Phenanthrene	130	J	210	23	ug/Kg	20	☼	8270C SIM	Total/NA
Pyrene	380		210	23	ug/Kg	20	☼	8270C SIM	Total/NA
BaP Equivalence	250		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	400		55	5.5	mg/Kg	5	☼	8015B	Total/NA
EFH (C15-C20)	6.6	J	28	5.5	mg/Kg	5	☼	8015B	Total/NA
EFH (C21-C30)	160		28	5.5	mg/Kg	5	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	570	B	22	3.8	mg/Kg	5	☼	8015B	Total/NA

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	21000		32	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	19	J ^ B	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		9.4	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	470	0.094	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	370		9.4	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	4100	J	6000	39	mg/Kg	1	☼	6010C	Total/NA
Sodium	97	J	470	56	mg/Kg	1	☼	6010C	Total/NA
Strontium	20		0.47	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	1.7	J	10	0.86	mg/Kg	1	☼	6010C	Total/NA
Titanium	950		0.94	0.13	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-603-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zirconium	1.8	J	8.1	0.33	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.021	J	9.6	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.9	J	16	0.056	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.58	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.58	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.7	J	23	0.0073	mg/Kg	1	☼	6020A	Total/NA
Copper	15	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	7.7	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	14	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.90		0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.060	J	0.87	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.28	J B	0.51	0.0039	mg/Kg	1	☼	6020A	Total/NA
Vanadium	35	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	71	J	120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.021	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.51		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	51	J	220	22	ug/Kg	20	☼	8270C SIM	Total/NA
Pyrene	24	J	220	24	ug/Kg	20	☼	8270C SIM	Total/NA
BaP Equivalence	0.051		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	420		100	10	mg/Kg	10	☼	8015B	Total/NA
EFH (C21-C30)	230		52	10	mg/Kg	10	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	660	B	42	7.0	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15000	J	21000	1.7	mg/Kg	1	☼	6010C	Total/NA
Calcium	1900		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	22000		36	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J ^ B	40	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4800		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	160	J	530	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	210		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2000	J	6900	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	280	J	540	63	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.53	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	1.9	J	12	0.98	mg/Kg	1	☼	6010C	Total/NA
Titanium	900		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.3	J	9.2	0.38	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.2	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	75	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.80	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-603-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36846-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.15	J	0.99	0.0093	mg/Kg	1	☼	6020A	Total/NA
Chromium	21	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	8.3	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	6.8	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.17	J	5.3	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.2		0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.085	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J B	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	37	J	62	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	62	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.95		0.100	0.100	SU	1		9045D	Total/NA
Temperature	21.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-603-SA6-SB-4.5 — Lab Sample ID: 280-36846-11

No Detections

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	160		53	5.3	mg/Kg	5	☼	8015B	Total/NA
EFH (C21-C30)	110		26	5.3	mg/Kg	5	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	270	B	21	3.6	mg/Kg	5	☼	8015B	Total/NA

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15000	J	20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.5	J	9.6	0.97	mg/Kg	1	☼	6010C	Total/NA
Calcium	1600		49	14	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J ^ B	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		9.9	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	250	J	490	0.099	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	200		9.9	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2400	J	6300	40	mg/Kg	1	☼	6010C	Total/NA
Sodium	240	J	490	58	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.49	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.7	J	11	0.90	mg/Kg	1	☼	6010C	Total/NA
Titanium	930		0.98	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.8	J	8.5	0.35	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.7	J	14	0.047	mg/Kg	1	☼	6020A	Total/NA
Barium	86	J	130	0.066	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.72	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.15	J	0.93	0.0087	mg/Kg	1	☼	6020A	Total/NA
Chromium	18	J	34	0.071	mg/Kg	1	☼	6020A	Total/NA
Cobalt	8.5	J	20	0.0062	mg/Kg	1	☼	6020A	Total/NA
Copper	12	J	27	0.066	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-604-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.4	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.36	J	4.9	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	27	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.81		0.61	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.031	J	0.73	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J B	0.43	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	41	J	58	0.036	mg/Kg	1	☼	6020A	Total/NA
Zinc	52	J	100	0.29	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.018	J	0.024	0.0067	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.82		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — Lab Sample ID: 280-36846-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	18		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	1.8	J	5.5	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	20	B	4.4	0.75	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — Lab Sample ID: 280-36846-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	21000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Calcium	3300		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	33000		37	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	47	B	40	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7800		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	240	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	520		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3000	J	6900	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	790		540	64	mg/Kg	1	☼	6010C	Total/NA
Strontium	25		0.54	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	3.0	J	12	0.99	mg/Kg	1	☼	6010C	Total/NA
Titanium	1000		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.4	J	9.3	0.38	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.014	J	8.7	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	6.9	J	15	0.050	mg/Kg	1	☼	6020A	Total/NA
Barium	220		140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	1.6		1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.31	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	39		37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	13	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	27	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	17	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.52	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	24	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	3.4		0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.047	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.41	J B	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	66		62	0.038	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-604-SA6-SB-3.5-4.5 (Continued) — Lab Sample ID: 280-36846-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	110		110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.011	J	0.026	0.0073	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.81		0.100	0.100	SU	1		9045D	Total/NA
Temperature	21.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-604-SA6-SB-4.0 — Lab Sample ID: 280-36846-16

No Detections

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	22		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	4.7	J	5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	31	B	4.2	0.72	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15000	J	21000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	2.2	J	10	1.0	mg/Kg	1	☼	6010C	Total/NA
Calcium	6700		53	15	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	17	J ^ B	39	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4700		11	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	250	J	530	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3100	J	6800	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	81	J	530	63	mg/Kg	1	☼	6010C	Total/NA
Strontium	23		0.53	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J	12	0.97	mg/Kg	1	☼	6010C	Total/NA
Titanium	640		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.8	J	9.2	0.38	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.015	J	9.5	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.5	J	16	0.055	mg/Kg	1	☼	6020A	Total/NA
Barium	110	J	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.81	J	1.2	0.025	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.42	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	28	J	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	9.9	J	23	0.0073	mg/Kg	1	☼	6020A	Total/NA
Copper	15	J	32	0.078	mg/Kg	1	☼	6020A	Total/NA
Lead	9.8	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.27	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	22	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.1		0.72	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.048	J	0.87	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.33	J B	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	53	J	68	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	81	J	120	0.35	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.017	J	0.026	0.0073	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SL-653-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-18

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.79		0.100	0.100	SU	1		9045D	Total/NA
Temperature	19.9		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	58		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	16		5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	75	B	4.2	0.71	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1248	570		75	25	ug/Kg	4	☼	8082A	Total/NA
Aluminum	20000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	3.4	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	11000		55	16	mg/Kg	1	☼	6010C	Total/NA
Iron	24000		37	4.2	mg/Kg	1	☼	6010C	Total/NA
Lithium	21	J B ^	41	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6000		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	340	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	450		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	4300	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	550	65	mg/Kg	1	☼	6010C	Total/NA
Strontium	34		0.54	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	840		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	3.7	J	9.5	0.39	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.1	J	17	0.058	mg/Kg	1	☼	6020A	Total/NA
Barium	110	J	160	0.081	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.78	J	1.3	0.026	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.49	J	1.1	0.011	mg/Kg	1	☼	6020A	Total/NA
Chromium	27	J	42	0.087	mg/Kg	1	☼	6020A	Total/NA
Cobalt	8.6	J	24	0.0076	mg/Kg	1	☼	6020A	Total/NA
Copper	15	J	33	0.081	mg/Kg	1	☼	6020A	Total/NA
Lead	20	J	39	0.021	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.29	J	6.1	0.020	mg/Kg	1	☼	6020A	Total/NA
Nickel	18	J	33	0.029	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.1		0.75	0.15	mg/Kg	1	☼	6020A	Total/NA
Silver	0.23	J	0.90	0.023	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J B	0.53	0.0040	mg/Kg	1	☼	6020A	Total/NA
Vanadium	48	J	71	0.044	mg/Kg	1	☼	6020A	Total/NA
Zinc	86	J	130	0.36	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.023	J	0.025	0.0070	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	8.10		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-654A-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36846-21

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-654A-SA6-SB-2.0-3.0 (Continued) — Lab Sample ID: 280-36846-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1248	110		18	6.1	ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1248	30		20	6.5	ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SL-654C-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1248	29		18	6.0	ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.81	J	11	0.29	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.3	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.53	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.88	J	11	0.19	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.6	J	11	0.80	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	2.4	J	11	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	2.3	J	11	0.83	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	6.4	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	2.9	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	2.1	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	9.5	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	9.8	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	2.8	J	11	0.53	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.7	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.6	J	11	0.36	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	5.9	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	7.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	3.5		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	28		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.7	J	5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	7.9		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	37	B	4.3	0.73	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	21000	1.7	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		53	15	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		36	4.0	mg/Kg	1	☼	6010C	Total/NA
Lithium	18	J B ^	39	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3700		11	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	280	J	530	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	450		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3800	J	6800	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	81	J	530	63	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.53	0.038	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-596-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tin	1.4	J	12	0.97	mg/Kg	1	☼	6010C	Total/NA
Titanium	800		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	9.2	0.38	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.029	J	8.8	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.6	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	97	J	140	0.071	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.55	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.40	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	18	J	37	0.077	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.0	J	21	0.0067	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J	29	0.072	mg/Kg	1	☼	6020A	Total/NA
Lead	15	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.81		0.66	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.25	J	0.80	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J B	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	33	J	62	0.039	mg/Kg	1	☼	6020A	Total/NA
Zinc	65	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.022	J	0.025	0.0070	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.21		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	1.0	J B	4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	10000	J	21000	1.6	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		52	15	mg/Kg	1	☼	6010C	Total/NA
Iron	18000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	22	J B ^	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4700		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	270	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	330		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2200	J	6600	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	100	J	520	61	mg/Kg	1	☼	6010C	Total/NA
Strontium	14		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J	11	0.94	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.0	J	8.9	0.37	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.018	J	8.3	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.1	J	14	0.048	mg/Kg	1	☼	6020A	Total/NA
Barium	66	J	130	0.067	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.42	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.14	J	0.95	0.0089	mg/Kg	1	☼	6020A	Total/NA
Chromium	21	J	35	0.072	mg/Kg	1	☼	6020A	Total/NA

Client Sample ID: SL-596-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36846-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	6.1	J	20	0.0063	mg/Kg	1	☼	6020A	Total/NA
Copper	8.8	J	28	0.068	mg/Kg	1	☼	6020A	Total/NA
Lead	4.3	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.28	J	5.0	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	28	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.83		0.62	0.13	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.23	J B	0.44	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	59	0.037	mg/Kg	1	☼	6020A	Total/NA
Zinc	49	J	100	0.30	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.40		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-596-SA6-SB-4.5 — Lab Sample ID: 280-36846-28

No Detections

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	0.85	J	11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	1.2	J	11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.73	J	11	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	1.1	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	1.7	J	11	0.78	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	3.7	J	11	0.97	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	4.0	J	11	0.80	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	9.3	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	4.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	2.6	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	11		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	12		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	2.9	J	11	0.51	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	3.7	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.8	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	7.4	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	11		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	5.7		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	74		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	2.3	J	5.5	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	28		5.5	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	100	B	4.4	0.75	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	17	J	18	6.0	ug/Kg	1	☼	8082A	Total/NA
Aluminum	12000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	1.6	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	3200		55	15	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		37	4.2	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-598-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	18	J B ^	41	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3900		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	430		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3400	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	80	J	550	65	mg/Kg	1	☼	6010C	Total/NA
Strontium	25		0.54	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	1.5	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	840		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.6	J	9.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.032	J	9.4	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.3	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	110	J	150	0.076	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.56	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.49	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	18	J	40	0.082	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.7	J	23	0.0071	mg/Kg	1	☼	6020A	Total/NA
Copper	11	J	31	0.077	mg/Kg	1	☼	6020A	Total/NA
Lead	17	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.47	J	5.7	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.73		0.71	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	1.4		0.85	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.24	J B	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	30	J	67	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	120		120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.029		0.025	0.0069	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.71		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.35	J	10	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.60	J	10	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.6	J	10	0.93	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	1.0	J	10	0.77	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	1.2	J	10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	1.7	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	1.9	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	0.44	J	10	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	1.6	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	2.4	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.3		0.0050	0.00074	ug/Kg	1		None	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	2.1	J B	4.1	0.70	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-598-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36846-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1700		51	14	mg/Kg	1	☼	6010C	Total/NA
Iron	20000		35	3.9	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J B ^	38	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4500		10	3.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J	510	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	320		10	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	2800	J	6500	42	mg/Kg	1	☼	6010C	Total/NA
Sodium	110	J	510	60	mg/Kg	1	☼	6010C	Total/NA
Strontium	17		0.51	0.037	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J	11	0.93	mg/Kg	1	☼	6010C	Total/NA
Titanium	940		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.8	J	8.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.1	J	15	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	93	J	140	0.069	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.64	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.17	J	0.97	0.0091	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J	36	0.074	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.0	J	20	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	8.7	J	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	5.8	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	28	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.80		0.64	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.060	J	0.77	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J B	0.45	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	38	J	60	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	51	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.39		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-598-SA6-SB-4.5 — Lab Sample ID: 280-36846-33

No Detections

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	17	J	100	10	ug/Kg	10	☼	8270C SIM	Total/NA
Fluoranthene	24	J	100	10	ug/Kg	10	☼	8270C SIM	Total/NA
Phenanthrene	14	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
Pyrene	24	J	100	11	ug/Kg	10	☼	8270C SIM	Total/NA
BaP Equivalence	0.017		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	16		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.4	J	5.3	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	20	B	4.3	0.72	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13000	J	21000	1.7	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-601-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2300		53	15	mg/Kg	1	☼	6010C	Total/NA
Iron	19000		36	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	19	J B ^	39	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4100		11	3.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	350	J	530	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	480		11	1.7	mg/Kg	1	☼	6010C	Total/NA
Potassium	3900	J	6800	44	mg/Kg	1	☼	6010C	Total/NA
Sodium	74	J	530	63	mg/Kg	1	☼	6010C	Total/NA
Strontium	21		0.53	0.038	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J	12	0.97	mg/Kg	1	☼	6010C	Total/NA
Titanium	860		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	9.2	0.38	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.022	J	8.7	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.1	J	15	0.051	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	140	0.070	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.53	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.39	J	1.0	0.0094	mg/Kg	1	☼	6020A	Total/NA
Chromium	17	J	37	0.076	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.7	J	21	0.0066	mg/Kg	1	☼	6020A	Total/NA
Copper	10	J	29	0.071	mg/Kg	1	☼	6020A	Total/NA
Lead	10	J	34	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.45	J	5.3	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	29	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.80		0.65	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.30	J	0.79	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.26	J B	0.46	0.0035	mg/Kg	1	☼	6020A	Total/NA
Vanadium	28	J	62	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	58	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.020	J	0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.66		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	1.1	J	10	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	2.5	J B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	18000	J	20000	1.6	mg/Kg	1	☼	6010C	Total/NA
Boron	1.4	J	9.8	0.99	mg/Kg	1	☼	6010C	Total/NA
Calcium	2000		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	22000	B	34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	24	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4600		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J B	500	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	310		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	2900	J	6400	41	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SL-601-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36846-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	150	J	500	59	mg/Kg	1	☼	6010C	Total/NA
Strontium	19		0.50	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.6	J	11	0.92	mg/Kg	1	☼	6010C	Total/NA
Titanium	950		1.0	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	2.1	J	8.7	0.36	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.016	J	7.8	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	4.2	J	13	0.045	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	130	0.063	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.72	J	0.98	0.020	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.21	J	0.89	0.0084	mg/Kg	1	☼	6020A	Total/NA
Chromium	20	J	33	0.068	mg/Kg	1	☼	6020A	Total/NA
Cobalt	6.2	J	19	0.0059	mg/Kg	1	☼	6020A	Total/NA
Copper	9.6	J	26	0.064	mg/Kg	1	☼	6020A	Total/NA
Lead	6.0	J	30	0.016	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.46	J	4.7	0.016	mg/Kg	1	☼	6020A	Total/NA
Nickel	13	J	26	0.023	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.96	B	0.59	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.047	J	0.71	0.018	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.30	J	0.41	0.0031	mg/Kg	1	☼	6020A	Total/NA
Vanadium	36	J	55	0.034	mg/Kg	1	☼	6020A	Total/NA
Zinc	51	J	98	0.28	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.010	J	0.025	0.0069	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	7.08		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.0		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-601-SA6-SB-4.5 — Lab Sample ID: 280-36846-38

No Detections

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	4.4	J	11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	3.8	J	11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	4.1	J	11	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	3.9	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	13		11	0.77	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	36		11	0.96	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	36		11	0.79	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	51		11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	22		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	18		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	61		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Dibenz(a,h)anthracene	6.8	J	11	1.4	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	67		11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	3.9	J	11	0.50	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	22		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	4.2	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	53		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	82		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	54		0.0050	0.00074	ug/Kg	1		None	Total/NA

Client Sample ID: SL-608-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	37		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	2.1	J	5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	15		5.4	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	54	B	4.3	0.74	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	49		18	6.0	ug/Kg	1	☼	8082A	Total/NA
Aroclor 5460	60		54	18	ug/Kg	1	☼	8082A	Total/NA
Aluminum	14000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	3.1	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		54	15	mg/Kg	1	☼	6010C	Total/NA
Iron	19000	B	37	4.1	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	40	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4300		11	4.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	310	J B	540	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	490		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	4300	J	7000	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	88	J	540	64	mg/Kg	1	☼	6010C	Total/NA
Strontium	18		0.54	0.039	mg/Kg	1	☼	6010C	Total/NA
Tin	1.4	J	12	0.99	mg/Kg	1	☼	6010C	Total/NA
Titanium	900		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.5	J	9.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.023	J	8.2	0.013	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.7	J	14	0.048	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	130	0.066	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.56	J	1.0	0.021	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.47	J	0.94	0.0088	mg/Kg	1	☼	6020A	Total/NA
Chromium	19	J	35	0.071	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.9	J	20	0.0062	mg/Kg	1	☼	6020A	Total/NA
Copper	12	J	27	0.067	mg/Kg	1	☼	6020A	Total/NA
Lead	12	J	32	0.017	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.44	J	5.0	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	14	J	27	0.024	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.86	B	0.61	0.12	mg/Kg	1	☼	6020A	Total/NA
Silver	0.14	J	0.74	0.019	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.28	J	0.43	0.0033	mg/Kg	1	☼	6020A	Total/NA
Vanadium	31	J	58	0.036	mg/Kg	1	☼	6020A	Total/NA
Zinc	73	J	100	0.30	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.025	J	0.026	0.0071	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.40		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	1.1	J	11	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	2.7	J B	4.2	0.71	mg/Kg	1	☼	8015B	Total/NA

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	2.4	J	9.2	0.93	mg/Kg	1	☼	6010C	Total/NA
Calcium	2200		47	13	mg/Kg	1	☼	6010C	Total/NA
Iron	16000	B	32	3.6	mg/Kg	1	☼	6010C	Total/NA
Lithium	18	J	35	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3600		9.5	3.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	380	J B	470	0.095	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	360		9.5	1.5	mg/Kg	1	☼	6010C	Total/NA
Potassium	3800	J	6100	39	mg/Kg	1	☼	6010C	Total/NA
Sodium	87	J	470	56	mg/Kg	1	☼	6010C	Total/NA
Strontium	20		0.47	0.034	mg/Kg	1	☼	6010C	Total/NA
Tin	1.2	J	10	0.87	mg/Kg	1	☼	6010C	Total/NA
Titanium	860		0.94	0.13	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.7	J	8.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.021	J	9.2	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.5	J	16	0.054	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	150	0.075	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.52	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.34	J	1.1	0.0099	mg/Kg	1	☼	6020A	Total/NA
Chromium	14	J	39	0.080	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J	22	0.0070	mg/Kg	1	☼	6020A	Total/NA
Copper	8.3	J	31	0.075	mg/Kg	1	☼	6020A	Total/NA
Lead	9.1	J	36	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.41	J	5.6	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	10	J	31	0.027	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.75	B	0.69	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.054	J	0.84	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J	0.49	0.0037	mg/Kg	1	☼	6020A	Total/NA
Vanadium	26	J	66	0.041	mg/Kg	1	☼	6020A	Total/NA
Zinc	51	J	120	0.33	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.027		0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH adj. to 25 deg C	6.75		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.2		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	11		11	0.28	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	12		11	0.33	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	2.7	J	11	0.17	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	1.7	J	11	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Anthracene	3.8	J	11	0.77	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	4.5	J	11	0.96	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	4.1	J	11	0.79	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	7.2	J	11	1.3	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	3.5	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	2.0	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	8.9	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	10	J	11	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	5.7	J	11	0.50	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2.7	J	11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-667-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	6.3	J	11	0.35	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	28		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	11		11	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	5.6		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	80		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C12-C14)	1.9	J	5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	5.7		5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	40		5.1	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	130	B	4.1	0.69	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000	J	22000	1.7	mg/Kg	1	☼	6010C	Total/NA
Boron	2.4	J	11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	2400		55	16	mg/Kg	1	☼	6010C	Total/NA
Iron	16000	B	37	4.2	mg/Kg	1	☼	6010C	Total/NA
Lithium	17	J	41	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3700		11	4.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	360	J B	550	0.11	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	410		11	1.8	mg/Kg	1	☼	6010C	Total/NA
Potassium	3400	J	7100	45	mg/Kg	1	☼	6010C	Total/NA
Sodium	93	J	550	65	mg/Kg	1	☼	6010C	Total/NA
Strontium	21		0.55	0.040	mg/Kg	1	☼	6010C	Total/NA
Tin	1.3	J	12	1.0	mg/Kg	1	☼	6010C	Total/NA
Titanium	840		1.1	0.15	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.6	J	9.5	0.39	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.023	J	8.5	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	2.6	J	15	0.049	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	140	0.069	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.52	J	1.1	0.022	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.40	J	0.98	0.0092	mg/Kg	1	☼	6020A	Total/NA
Chromium	14	J	36	0.074	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.0	J	20	0.0065	mg/Kg	1	☼	6020A	Total/NA
Copper	9.3	J	28	0.069	mg/Kg	1	☼	6020A	Total/NA
Lead	14	J	33	0.018	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.40	J	5.2	0.017	mg/Kg	1	☼	6020A	Total/NA
Nickel	11	J	28	0.025	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.77	B	0.64	0.13	mg/Kg	1	☼	6020A	Total/NA
Silver	0.14	J	0.77	0.020	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.24	J	0.45	0.0034	mg/Kg	1	☼	6020A	Total/NA
Vanadium	25	J	61	0.038	mg/Kg	1	☼	6020A	Total/NA
Zinc	65	J	110	0.31	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.036		0.023	0.0063	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	6.49		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.3		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-45

Client Sample ID: SL-668-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C30-C40	18		11	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.4	J	5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	3.9	J	5.6	1.1	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	24	B	4.5	0.76	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	26000		20000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	6.0	J	9.7	0.98	mg/Kg	1	☼	6010C	Total/NA
Calcium	19000		50	14	mg/Kg	1	☼	6010C	Total/NA
Iron	30000	B	34	3.8	mg/Kg	1	☼	6010C	Total/NA
Lithium	23	J	37	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7700		10	3.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	430	J B	490	0.10	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	470		10	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	5500	J	6400	41	mg/Kg	1	☼	6010C	Total/NA
Sodium	120	J	500	59	mg/Kg	1	☼	6010C	Total/NA
Strontium	43		0.49	0.036	mg/Kg	1	☼	6010C	Total/NA
Tin	1.7	J	11	0.91	mg/Kg	1	☼	6010C	Total/NA
Titanium	770		0.99	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	4.3	J	8.6	0.35	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.027	J	9.5	0.015	mg/Kg	1	☼	6020A	Total/NA
Arsenic	5.2	J	16	0.055	mg/Kg	1	☼	6020A	Total/NA
Barium	120	J	150	0.077	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.96	J	1.2	0.024	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.58	J	1.1	0.010	mg/Kg	1	☼	6020A	Total/NA
Chromium	31	J	40	0.083	mg/Kg	1	☼	6020A	Total/NA
Cobalt	11	J	23	0.0072	mg/Kg	1	☼	6020A	Total/NA
Copper	17	J	32	0.077	mg/Kg	1	☼	6020A	Total/NA
Lead	9.8	J	37	0.020	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.22	J	5.8	0.019	mg/Kg	1	☼	6020A	Total/NA
Nickel	21	J	32	0.028	mg/Kg	1	☼	6020A	Total/NA
Selenium	1.1	B	0.71	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.051	J	0.86	0.022	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.35	J	0.50	0.0038	mg/Kg	1	☼	6020A	Total/NA
Vanadium	54	J	67	0.042	mg/Kg	1	☼	6020A	Total/NA
Zinc	74	J	120	0.34	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.0095	J	0.025	0.0068	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	8.10		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.5		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	1.5	J	10	0.27	ug/Kg	1	☼	8270C SIM	Total/NA
2-Methylnaphthalene	2.1	J	10	0.32	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthene	0.20	J	10	0.16	ug/Kg	1	☼	8270C SIM	Total/NA
Acenaphthylene	0.18	J	10	0.18	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]anthracene	1.1	J	10	0.93	ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: SL-684-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	1.3	J	10	0.76	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	2.5	J	10	1.2	ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	2.8	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	2.8	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	2.9	J	10	1.0	ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1.1	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	1.8	J	10	0.34	ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	2.8	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	2.8	J	10	1.1	ug/Kg	1	☼	8270C SIM	Total/NA
BaP Equivalence	1.8		0.0050	0.00074	ug/Kg	1		None	Total/NA
C30-C40	82		10	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C15-C20)	1.3	J	5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
EFH (C21-C30)	13		5.0	1.0	mg/Kg	1	☼	8015B	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	97	B	4.0	0.68	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor 1254	15	J	18	5.9	ug/Kg	1	☼	8082A	Total/NA
Aluminum	14000	J	19000	1.5	mg/Kg	1	☼	6010C	Total/NA
Boron	1.6	J	9.4	0.95	mg/Kg	1	☼	6010C	Total/NA
Calcium	2100		49	14	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	33	3.7	mg/Kg	1	☼	6010C	Total/NA
Lithium	20	J	36	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4100		9.7	3.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	300	J B	480	0.097	mg/Kg	1	☼	6010C	Total/NA
Phosphorus	360		9.7	1.6	mg/Kg	1	☼	6010C	Total/NA
Potassium	3200	J	6200	40	mg/Kg	1	☼	6010C	Total/NA
Sodium	110	J ^	490	57	mg/Kg	1	☼	6010C	Total/NA
Strontium	30		0.48	0.035	mg/Kg	1	☼	6010C	Total/NA
Tin	1.4	J	11	0.89	mg/Kg	1	☼	6010C	Total/NA
Titanium	880		0.97	0.14	mg/Kg	1	☼	6010C	Total/NA
Zirconium	1.8	J	8.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.021	J	8.9	0.014	mg/Kg	1	☼	6020A	Total/NA
Arsenic	3.5	J	15	0.052	mg/Kg	1	☼	6020A	Total/NA
Barium	100	J	140	0.072	mg/Kg	1	☼	6020A	Total/NA
Beryllium	0.52	J	1.1	0.023	mg/Kg	1	☼	6020A	Total/NA
Cadmium	0.28	J	1.0	0.0096	mg/Kg	1	☼	6020A	Total/NA
Chromium	18	J	38	0.078	mg/Kg	1	☼	6020A	Total/NA
Cobalt	5.8	J	22	0.0068	mg/Kg	1	☼	6020A	Total/NA
Copper	9.1	J	30	0.073	mg/Kg	1	☼	6020A	Total/NA
Lead	9.6	J	35	0.019	mg/Kg	1	☼	6020A	Total/NA
Molybdenum	0.46	J	5.4	0.018	mg/Kg	1	☼	6020A	Total/NA
Nickel	12	J	30	0.026	mg/Kg	1	☼	6020A	Total/NA
Selenium	0.92	B	0.67	0.14	mg/Kg	1	☼	6020A	Total/NA
Silver	0.071	J	0.81	0.021	mg/Kg	1	☼	6020A	Total/NA
Thallium	0.25	J	0.47	0.0036	mg/Kg	1	☼	6020A	Total/NA
Vanadium	32	J	64	0.040	mg/Kg	1	☼	6020A	Total/NA
Zinc	58	J	110	0.32	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.015	J	0.024	0.0065	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SL-684-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-48

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.33		0.100	0.100	SU	1		9045D	Total/NA
Temperature	20.4		1.00	1.00	Degrees C	1		9045D	Total/NA

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-49

No Detections

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36846-50

No Detections

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36846-51

No Detections

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-52

No Detections

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-53

No Detections

Client Sample ID: SL-545-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36846-54

No Detections

Client Sample ID: SL-547-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Formaldehyde	1100	J	1800	720	ug/Kg	1	☼	8315A	Total/NA

Client Sample ID: SL-547-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-56

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Formaldehyde	780	J	1900	750	ug/Kg	1	☼	8315A	Total/NA

Client Sample ID: SL-547-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36846-57

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
None	Benzo(a)pyrene Equivalents	NONE	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics	SW846	TAL DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36846-1	TB-121012	Water	12/10/12 08:00	12/12/12 09:30
280-36846-2	SL-557-SA6-SB-0.0-0.5	Solid	12/10/12 10:25	12/12/12 09:30
280-36846-3	SL-557-SA6-SB-0.0-0.5	Solid	12/10/12 10:25	12/12/12 09:30
280-36846-4	SL-557-SA6-SB-5.5-6.5	Solid	12/10/12 10:45	12/12/12 09:30
280-36846-5	SL-557-SA6-SB-5.5-6.5	Solid	12/10/12 10:45	12/12/12 09:30
280-36846-6	SL-557-SA6-SB-6.0	Solid	12/10/12 10:50	12/12/12 09:30
280-36846-7	SL-603-SA6-SB-0.0-0.5	Solid	12/10/12 08:20	12/12/12 09:30
280-36846-8	SL-603-SA6-SB-0.0-0.5	Solid	12/10/12 08:20	12/12/12 09:30
280-36846-9	SL-603-SA6-SB-4.0-5.0	Solid	12/10/12 08:40	12/12/12 09:30
280-36846-10	SL-603-SA6-SB-4.0-5.0	Solid	12/10/12 08:40	12/12/12 09:30
280-36846-11	SL-603-SA6-SB-4.5	Solid	12/10/12 08:45	12/12/12 09:30
280-36846-12	SL-604-SA6-SB-0.0-0.5	Solid	12/10/12 09:25	12/12/12 09:30
280-36846-13	SL-604-SA6-SB-0.0-0.5	Solid	12/10/12 09:25	12/12/12 09:30
280-36846-14	SL-604-SA6-SB-3.5-4.5	Solid	12/10/12 09:40	12/12/12 09:30
280-36846-15	SL-604-SA6-SB-3.5-4.5	Solid	12/10/12 09:40	12/12/12 09:30
280-36846-16	SL-604-SA6-SB-4.0	Solid	12/10/12 09:45	12/12/12 09:30
280-36846-17	SL-653-SA6-SB-0.0-0.5	Solid	12/10/12 10:10	12/12/12 09:30
280-36846-18	SL-653-SA6-SB-0.0-0.5	Solid	12/10/12 10:10	12/12/12 09:30
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Solid	12/10/12 08:15	12/12/12 09:30
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Solid	12/10/12 08:15	12/12/12 09:30
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Solid	12/10/12 08:50	12/12/12 09:30
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Solid	12/10/12 09:05	12/12/12 09:30
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Solid	12/10/12 09:30	12/12/12 09:30
280-36846-24	SL-596-SA6-SB-0.0-0.5	Solid	12/10/12 14:25	12/12/12 09:30
280-36846-25	SL-596-SA6-SB-0.0-0.5	Solid	12/10/12 14:25	12/12/12 09:30
280-36846-26	SL-596-SA6-SB-4.0-5.0	Solid	12/10/12 14:35	12/12/12 09:30
280-36846-27	SL-596-SA6-SB-4.0-5.0	Solid	12/10/12 14:35	12/12/12 09:30
280-36846-28	SL-596-SA6-SB-4.5	Solid	12/10/12 14:40	12/12/12 09:30
280-36846-29	SL-598-SA6-SB-0.0-0.5	Solid	12/10/12 13:40	12/12/12 09:30
280-36846-30	SL-598-SA6-SB-0.0-0.5	Solid	12/10/12 13:40	12/12/12 09:30
280-36846-31	SL-598-SA6-SB-4.0-5.0	Solid	12/10/12 13:50	12/12/12 09:30
280-36846-32	SL-598-SA6-SB-4.0-5.0	Solid	12/10/12 13:50	12/12/12 09:30
280-36846-33	SL-598-SA6-SB-4.5	Solid	12/10/12 13:55	12/12/12 09:30
280-36846-34	SL-601-SA6-SB-0.0-0.5	Solid	12/10/12 13:00	12/12/12 09:30
280-36846-35	SL-601-SA6-SB-0.0-0.5	Solid	12/10/12 13:00	12/12/12 09:30
280-36846-36	SL-601-SA6-SB-4.0-5.0	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-37	SL-601-SA6-SB-4.0-5.0	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-38	SL-601-SA6-SB-4.5	Solid	12/10/12 13:15	12/12/12 09:30
280-36846-39	SL-608-SA6-SB-0.0-0.5	Solid	12/10/12 12:25	12/12/12 09:30
280-36846-40	SL-608-SA6-SB-0.0-0.5	Solid	12/10/12 12:25	12/12/12 09:30
280-36846-41	SL-666-SA6-SB-0.0-0.5	Solid	12/10/12 12:30	12/12/12 09:30
280-36846-42	SL-666-SA6-SB-0.0-0.5	Solid	12/10/12 12:30	12/12/12 09:30
280-36846-43	SL-667-SA6-SB-0.0-0.5	Solid	12/10/12 14:15	12/12/12 09:30
280-36846-44	SL-667-SA6-SB-0.0-0.5	Solid	12/10/12 14:15	12/12/12 09:30
280-36846-45	SL-668-SA6-SB-0.0-0.5	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-46	SL-668-SA6-SB-0.0-0.5	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-47	SL-684-SA6-SB-0.0-0.5	Solid	12/10/12 14:50	12/12/12 09:30
280-36846-48	SL-684-SA6-SB-0.0-0.5	Solid	12/10/12 14:50	12/12/12 09:30
280-36846-49	SL-542-SA6-SB-0.0-0.5	Solid	12/07/12 07:50	12/12/12 09:30
280-36846-50	SL-542-SA6-SB-3.0-4.0MS	Solid	12/07/12 08:45	12/12/12 09:30
280-36846-51	SL-942-SA6-SB-3.0-4.0	Solid	12/07/12 08:55	12/12/12 09:30
280-36846-52	SL-545-SA6-SB-0.0-0.5	Solid	12/07/12 09:40	12/12/12 09:30
280-36846-53	SL-545-SA6-SB-4.0-5.0	Solid	12/07/12 10:20	12/12/12 09:30

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36846-54	SL-545-SA6-SB-9.0-10.0	Solid	12/07/12 10:30	12/12/12 09:30
280-36846-55	SL-547-SA6-SB-0.0-0.5	Solid	12/07/12 12:40	12/12/12 09:30
280-36846-56	SL-547-SA6-SB-4.0-5.0	Solid	12/07/12 13:40	12/12/12 09:30
280-36846-57	SL-547-SA6-SB-9.0-10.0	Solid	12/07/12 13:50	12/12/12 09:30

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-2**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	3.5	J	110	2.9	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
2-Methylnaphthalene	5.0	J	110	3.5	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Acenaphthene	6.0	J	110	1.8	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Acenaphthylene	6.1	J	110	1.9	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Anthracene	26	J	110	8.2	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Benzo[a]anthracene	200		110	10	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Benzo[a]pyrene	170		110	8.4	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Benzo[b]fluoranthene	230		110	14	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Benzo[g,h,i]perylene	87	J	110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Benzo[k]fluoranthene	86	J	110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Chrysene	290		110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Dibenz(a,h)anthracene	22	J	110	15	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Fluoranthene	370		110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Fluorene	7.3	J	110	5.3	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Indeno[1,2,3-cd]pyrene	96	J	110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Naphthalene	6.5	J	110	3.7	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
N-Nitrosodimethylamine	ND		110	27	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Phenanthrene	140		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10
Pyrene	400		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 17:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 17:06*	*10*
Nitrobenzene-d5	*105*	*D*	*40 - 130*	*12/12/12 16:55*	*12/16/12 17:06*	*10*
Terphenyl-d14	*103*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 17:06*	*10*

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-4**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.28	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
2-Methylnaphthalene	ND		11	0.34	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Acenaphthene	ND		11	0.17	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Anthracene	ND		11	0.79	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Benzo[a]anthracene	ND		11	0.98	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Benzo[a]pyrene	ND		11	0.81	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Fluorene	ND		11	0.51	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Naphthalene	ND		11	0.36	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 18:21	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		45 - 130	12/12/12 16:55	12/16/12 18:21	1
Nitrobenzene-d5	63		40 - 130	12/12/12 16:55	12/16/12 18:21	1
Terphenyl-d14	68		45 - 130	12/12/12 16:55	12/16/12 18:21	1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-7**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		210	5.4	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
2-Methylnaphthalene	ND		210	6.4	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Acenaphthene	**4.9**	**J**	210	3.3	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Acenaphthylene	**3.8**	**J**	210	3.5	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Anthracene	**24**	**J**	210	15	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Benzo[a]anthracene	**210**		210	19	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Benzo[a]pyrene	**190**	**J**	210	15	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Benzo[b]fluoranthene	**270**		210	25	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Benzo[g,h,i]perylene	**100**	**J**	210	23	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Benzo[k]fluoranthene	**97**	**J**	210	21	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Chrysene	**300**		210	21	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Dibenz(a,h)anthracene	ND		210	27	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Fluoranthene	**360**		210	21	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Fluorene	ND		210	9.7	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Indeno[1,2,3-cd]pyrene	**110**	**J**	210	23	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Naphthalene	ND		210	6.7	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
N-Nitrosodimethylamine	ND		210	50	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Phenanthrene	**130**	**J**	210	23	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20
Pyrene	**380**		210	23	ug/Kg	☼	12/12/12 16:55	12/16/12 18:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88	D	45 - 130	12/12/12 16:55	12/16/12 18:46	20
Nitrobenzene-d5	85	D	40 - 130	12/12/12 16:55	12/16/12 18:46	20
Terphenyl-d14	87	D	45 - 130	12/12/12 16:55	12/16/12 18:46	20

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-9**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		220	5.7	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
2-Methylnaphthalene	ND		220	6.7	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Acenaphthene	ND		220	3.5	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Acenaphthylene	ND		220	3.7	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Anthracene	ND		220	16	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Benzo[a]anthracene	ND		220	20	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Benzo[a]pyrene	ND		220	16	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Benzo[b]fluoranthene	ND		220	26	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Benzo[g,h,i]perylene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Benzo[k]fluoranthene	ND		220	22	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Chrysene	**51**	**J**	220	22	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Dibenz(a,h)anthracene	ND		220	28	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Fluoranthene	ND		220	22	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Fluorene	ND		220	10	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Indeno[1,2,3-cd]pyrene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Naphthalene	ND		220	7.1	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-9**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		220	52	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Phenanthrene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20
Pyrene	**24**	**J**	220	24	ug/Kg	☼	12/12/12 16:55	12/16/12 19:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 19:11*	*20*
Nitrobenzene-d5	*83*	*D*	*40 - 130*	*12/12/12 16:55*	*12/16/12 19:11*	*20*
Terphenyl-d14	*89*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 19:11*	*20*

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-12**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		110	2.8	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
2-Methylnaphthalene	ND		110	3.3	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Acenaphthene	ND		110	1.7	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Acenaphthylene	ND		110	1.8	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Anthracene	ND		110	7.7	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Benzo[a]anthracene	ND		110	9.6	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Benzo[a]pyrene	ND		110	7.9	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Benzo[b]fluoranthene	ND		110	13	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Benzo[g,h,i]perylene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Benzo[k]fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Chrysene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Dibenz(a,h)anthracene	ND		110	14	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Fluorene	ND		110	5.0	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Indeno[1,2,3-cd]pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Naphthalene	ND		110	3.5	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
N-Nitrosodimethylamine	ND		110	26	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Phenanthrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10
Pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/16/12 19:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 19:36*	*10*
Nitrobenzene-d5	*79*	*D*	*40 - 130*	*12/12/12 16:55*	*12/16/12 19:36*	*10*
Terphenyl-d14	*91*	*D*	*45 - 130*	*12/12/12 16:55*	*12/16/12 19:36*	*10*

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-14**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		11	0.29	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
2-Methylnaphthalene	ND		11	0.34	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Acenaphthene	ND		11	0.18	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Acenaphthylene	ND		11	0.19	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Anthracene	ND		11	0.80	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Benzo[a]anthracene	ND		11	1.0	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Benzo[a]pyrene	ND		11	0.82	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Benzo[b]fluoranthene	ND		11	1.3	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-14**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Benzo[k]fluoranthene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Chrysene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Fluoranthene	ND		11	1.1	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Fluorene	ND		11	0.52	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Indeno[1,2,3-cd]pyrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Naphthalene	ND		11	0.36	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Phenanthrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1
Pyrene	ND		11	1.2	ug/Kg	☼	12/12/12 16:55	12/16/12 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*48*		*45 - 130*	*12/12/12 16:55*	*12/16/12 20:01*	*1*
Nitrobenzene-d5	*46*		*40 - 130*	*12/12/12 16:55*	*12/16/12 20:01*	*1*
Terphenyl-d14	*51*		*45 - 130*	*12/12/12 16:55*	*12/16/12 20:01*	*1*

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-17**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		110	2.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
2-Methylnaphthalene	ND		110	3.4	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Acenaphthene	ND		110	1.8	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Acenaphthylene	ND		110	1.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Anthracene	ND		110	7.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Benzo[a]anthracene	ND		110	9.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Benzo[a]pyrene	ND		110	8.1	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Benzo[b]fluoranthene	ND		110	13	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Benzo[g,h,i]perylene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Benzo[k]fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Chrysene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Dibenz(a,h)anthracene	ND		110	14	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Fluorene	ND		110	5.2	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Indeno[1,2,3-cd]pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Naphthalene	ND		110	3.6	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
N-Nitrosodimethylamine	ND		110	26	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Phenanthrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10
Pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:02	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:02*	*10*
Nitrobenzene-d5	*91*	*D*	*40 - 130*	*12/12/12 16:55*	*12/18/12 22:02*	*10*
Terphenyl-d14	*92*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:02*	*10*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-19**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		110	2.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
2-Methylnaphthalene	ND		110	3.5	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Acenaphthene	ND		110	1.8	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Acenaphthylene	ND		110	1.9	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Anthracene	ND		110	8.2	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Benzo[a]anthracene	ND		110	10	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Benzo[a]pyrene	ND		110	8.4	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Benzo[b]fluoranthene	ND		110	14	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Benzo[g,h,i]perylene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Benzo[k]fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Chrysene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Dibenz(a,h)anthracene	ND		110	15	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Fluoranthene	ND		110	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Fluorene	ND		110	5.3	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Indeno[1,2,3-cd]pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Naphthalene	ND		110	3.7	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
N-Nitrosodimethylamine	ND		110	27	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Phenanthrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10
Pyrene	ND		110	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:27*	*10*
Nitrobenzene-d5	*78*	*D*	*40 - 130*	*12/12/12 16:55*	*12/18/12 22:27*	*10*
Terphenyl-d14	*89*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:27*	*10*

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-24**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.81**	**J**	11	0.29	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
2-Methylnaphthalene	**1.3**	**J**	11	0.35	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Acenaphthene	**0.53**	**J**	11	0.18	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Acenaphthylene	**0.88**	**J**	11	0.19	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Anthracene	**1.6**	**J**	11	0.80	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Benzo[a]anthracene	**2.4**	**J**	11	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Benzo[a]pyrene	**2.3**	**J**	11	0.83	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Benzo[b]fluoranthene	**6.4**	**J**	11	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Benzo[g,h,i]perylene	**2.9**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Benzo[k]fluoranthene	**2.1**	**J**	11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Chrysene	**9.5**	**J**	11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Dibenz(a,h)anthracene	ND		11	1.5	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Fluoranthene	**9.8**	**J**	11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Fluorene	**2.8**	**J**	11	0.53	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Indeno[1,2,3-cd]pyrene	**2.7**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Naphthalene	**1.6**	**J**	11	0.36	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
N-Nitrosodimethylamine	ND		11	2.7	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Phenanthrene	**5.9**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1
Pyrene	**7.5**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 21:11	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		45 - 130	12/12/12 16:55	12/17/12 21:11	1
Nitrobenzene-d5	72		40 - 130	12/12/12 16:55	12/17/12 21:11	1
Terphenyl-d14	82		45 - 130	12/12/12 16:55	12/17/12 21:11	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-26**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
2-Methylnaphthalene	ND		10	0.32	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Acenaphthene	ND		10	0.16	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Acenaphthylene	ND		10	0.17	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Benzo[a]anthracene	ND		10	0.92	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Benzo[a]pyrene	ND		10	0.76	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Benzo[b]fluoranthene	ND		10	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Chrysene	ND		10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Fluoranthene	ND		10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Naphthalene	ND		10	0.33	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Phenanthrene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1
Pyrene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		45 - 130	12/12/12 16:55	12/17/12 21:36	1
Nitrobenzene-d5	69		40 - 130	12/12/12 16:55	12/17/12 21:36	1
Terphenyl-d14	78		45 - 130	12/12/12 16:55	12/17/12 21:36	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-29**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.85**	**J**	11	0.28	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
2-Methylnaphthalene	**1.2**	**J**	11	0.33	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Acenaphthene	**0.73**	**J**	11	0.17	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Acenaphthylene	**1.1**	**J**	11	0.18	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Anthracene	**1.7**	**J**	11	0.78	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Benzo[a]anthracene	**3.7**	**J**	11	0.97	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Benzo[a]pyrene	**4.0**	**J**	11	0.80	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Benzo[b]fluoranthene	**9.3**	**J**	11	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Benzo[g,h,i]perylene	**4.5**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Benzo[k]fluoranthene	**2.6**	**J**	11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Chrysene	**11**		11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Fluoranthene	**12**		11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Fluorene	**2.9**	**J**	11	0.51	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Indeno[1,2,3-cd]pyrene	**3.7**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Naphthalene	**1.8**	**J**	11	0.35	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-29**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Phenanthrene	**7.4**	**J**	11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1
Pyrene	**11**		11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*45 - 130*	*12/12/12 16:55*	*12/17/12 22:01*	*1*
Nitrobenzene-d5	*87*		*40 - 130*	*12/12/12 16:55*	*12/17/12 22:01*	*1*
Terphenyl-d14	*78*		*45 - 130*	*12/12/12 16:55*	*12/17/12 22:01*	*1*

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-31**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	0.27	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
2-Methylnaphthalene	**0.35**	**J**	10	0.32	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Acenaphthene	**0.60**	**J**	10	0.17	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Acenaphthylene	ND		10	0.18	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Anthracene	ND		10	0.75	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Benzo[a]anthracene	**1.6**	**J**	10	0.93	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Benzo[a]pyrene	**1.0**	**J**	10	0.77	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Benzo[b]fluoranthene	**1.2**	**J**	10	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Benzo[g,h,i]perylene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Chrysene	**1.7**	**J**	10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Fluoranthene	**1.9**	**J**	10	1.0	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Fluorene	ND		10	0.49	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Indeno[1,2,3-cd]pyrene	ND		10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Naphthalene	**0.44**	**J**	10	0.34	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Phenanthrene	**1.6**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1
Pyrene	**2.4**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*45 - 130*	*12/12/12 16:55*	*12/17/12 22:26*	*1*
Nitrobenzene-d5	*80*		*40 - 130*	*12/12/12 16:55*	*12/17/12 22:26*	*1*
Terphenyl-d14	*86*		*45 - 130*	*12/12/12 16:55*	*12/17/12 22:26*	*1*

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-34**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		100	2.6	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
2-Methylnaphthalene	ND		100	3.1	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Acenaphthene	ND		100	1.6	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Acenaphthylene	ND		100	1.7	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Anthracene	ND		100	7.3	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Benzo[a]anthracene	ND		100	9.2	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Benzo[a]pyrene	ND		100	7.5	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Benzo[b]fluoranthene	ND		100	12	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-34**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		100	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Benzo[k]fluoranthene	ND		100	10	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Chrysene	**17**	**J**	100	10	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Dibenz(a,h)anthracene	ND		100	13	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Fluoranthene	**24**	**J**	100	10	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Fluorene	ND		100	4.8	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Indeno[1,2,3-cd]pyrene	ND		100	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Naphthalene	ND		100	3.3	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
N-Nitrosodimethylamine	ND		100	24	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Phenanthrene	**14**	**J**	100	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10
Pyrene	**24**	**J**	100	11	ug/Kg	☼	12/12/12 16:55	12/18/12 22:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:52*	*10*
Nitrobenzene-d5	*77*	*D*	*40 - 130*	*12/12/12 16:55*	*12/18/12 22:52*	*10*
Terphenyl-d14	*88*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 22:52*	*10*

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-36**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.9	0.26	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
2-Methylnaphthalene	ND		9.9	0.31	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Acenaphthene	ND		9.9	0.16	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Acenaphthylene	ND		9.9	0.17	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Anthracene	ND		9.9	0.72	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Benzo[a]anthracene	ND		9.9	0.89	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Benzo[a]pyrene	ND		9.9	0.74	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Benzo[b]fluoranthene	ND		9.9	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Benzo[g,h,i]perylene	ND		9.9	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Benzo[k]fluoranthene	ND		9.9	0.99	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Chrysene	ND		9.9	0.99	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Dibenz(a,h)anthracene	ND		9.9	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Fluoranthene	ND		9.9	0.99	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Fluorene	ND		9.9	0.47	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Indeno[1,2,3-cd]pyrene	ND		9.9	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Naphthalene	ND		9.9	0.32	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
N-Nitrosodimethylamine	ND		9.9	2.4	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Phenanthrene	ND		9.9	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1
Pyrene	ND		9.9	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*56*		*45 - 130*	*12/12/12 16:55*	*12/17/12 23:16*	*1*
Nitrobenzene-d5	*57*		*40 - 130*	*12/12/12 16:55*	*12/17/12 23:16*	*1*
Terphenyl-d14	*62*		*45 - 130*	*12/12/12 16:55*	*12/17/12 23:16*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-39**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	4.4	J	11	0.28	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
2-Methylnaphthalene	3.8	J	11	0.33	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Acenaphthene	4.1	J	11	0.17	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Acenaphthylene	3.9	J	11	0.18	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Anthracene	13		11	0.77	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Benzo[a]anthracene	36		11	0.96	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Benzo[a]pyrene	36		11	0.79	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Benzo[b]fluoranthene	51		11	1.3	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Benzo[g,h,i]perylene	22		11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Benzo[k]fluoranthene	18		11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Chrysene	61		11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Dibenz(a,h)anthracene	6.8	J	11	1.4	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Fluoranthene	67		11	1.1	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Fluorene	3.9	J	11	0.50	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Indeno[1,2,3-cd]pyrene	22		11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Naphthalene	4.2	J	11	0.35	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Phenanthrene	53		11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1
Pyrene	82		11	1.2	ug/Kg	☼	12/12/12 16:55	12/17/12 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*45 - 130*	*12/12/12 16:55*	*12/17/12 23:41*	*1*
Nitrobenzene-d5	*95*		*40 - 130*	*12/12/12 16:55*	*12/17/12 23:41*	*1*
Terphenyl-d14	*103*		*45 - 130*	*12/12/12 16:55*	*12/17/12 23:41*	*1*

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-41**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		220	5.8	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
2-Methylnaphthalene	ND		220	6.9	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Acenaphthene	ND		220	3.6	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Acenaphthylene	ND		220	3.8	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Anthracene	ND		220	16	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Benzo[a]anthracene	ND		220	20	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Benzo[a]pyrene	ND		220	16	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Benzo[b]fluoranthene	ND		220	27	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Benzo[g,h,i]perylene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Benzo[k]fluoranthene	ND		220	22	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Chrysene	ND		220	22	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Dibenz(a,h)anthracene	ND		220	29	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Fluoranthene	ND		220	22	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Fluorene	ND		220	10	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Indeno[1,2,3-cd]pyrene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Naphthalene	ND		220	7.2	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
N-Nitrosodimethylamine	ND		220	53	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Phenanthrene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20
Pyrene	ND		220	24	ug/Kg	☼	12/12/12 16:55	12/18/12 23:17	20

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70	D	45 - 130	12/12/12 16:55	12/18/12 23:17	20
Nitrobenzene-d5	71	D	40 - 130	12/12/12 16:55	12/18/12 23:17	20
Terphenyl-d14	77	D	45 - 130	12/12/12 16:55	12/18/12 23:17	20

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-43**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	11		11	0.28	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
2-Methylnaphthalene	12		11	0.33	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Acenaphthene	2.7	J	11	0.17	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Acenaphthylene	1.7	J	11	0.18	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Anthracene	3.8	J	11	0.77	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Benzo[a]anthracene	4.5	J	11	0.96	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Benzo[a]pyrene	4.1	J	11	0.79	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Benzo[b]fluoranthene	7.2	J	11	1.3	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Benzo[g,h,i]perylene	3.5	J	11	1.2	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Benzo[k]fluoranthene	2.0	J	11	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Chrysene	8.9	J	11	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Dibenz(a,h)anthracene	ND		11	1.4	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Fluoranthene	10	J	11	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Fluorene	5.7	J	11	0.50	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Indeno[1,2,3-cd]pyrene	2.7	J	11	1.2	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Naphthalene	6.3	J	11	0.35	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
N-Nitrosodimethylamine	ND		11	2.6	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Phenanthrene	28		11	1.2	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1
Pyrene	11		11	1.2	ug/Kg	☼	12/12/12 16:55	12/18/12 00:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		45 - 130	12/12/12 16:55	12/18/12 00:31	1
Nitrobenzene-d5	103		40 - 130	12/12/12 16:55	12/18/12 00:31	1
Terphenyl-d14	80		45 - 130	12/12/12 16:55	12/18/12 00:31	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-45**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		230	6.0	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
2-Methylnaphthalene	ND		230	7.2	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Acenaphthene	ND		230	3.7	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Acenaphthylene	ND		230	3.9	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Anthracene	ND		230	17	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Benzo[a]anthracene	ND		230	21	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Benzo[a]pyrene	ND		230	17	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Benzo[b]fluoranthene	ND		230	28	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Benzo[g,h,i]perylene	ND		230	26	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Benzo[k]fluoranthene	ND		230	23	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Chrysene	ND		230	23	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Dibenz(a,h)anthracene	ND		230	30	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Fluoranthene	ND		230	23	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Fluorene	ND		230	11	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Indeno[1,2,3-cd]pyrene	ND		230	26	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Naphthalene	ND		230	7.6	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-45**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		230	56	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Phenanthrene	ND		230	26	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20
Pyrene	ND		230	26	ug/Kg	☼	12/12/12 16:55	12/18/12 23:42	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 23:42*	*20*
Nitrobenzene-d5	*87*	*D*	*40 - 130*	*12/12/12 16:55*	*12/18/12 23:42*	*20*
Terphenyl-d14	*78*	*D*	*45 - 130*	*12/12/12 16:55*	*12/18/12 23:42*	*20*

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-47**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.5**	**J**	10	0.27	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
2-Methylnaphthalene	**2.1**	**J**	10	0.32	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Acenaphthene	**0.20**	**J**	10	0.16	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Acenaphthylene	**0.18**	**J**	10	0.18	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Anthracene	ND		10	0.74	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Benzo[a]anthracene	**1.1**	**J**	10	0.93	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Benzo[a]pyrene	**1.3**	**J**	10	0.76	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Benzo[b]fluoranthene	**2.5**	**J**	10	1.2	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Benzo[g,h,i]perylene	**2.8**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Benzo[k]fluoranthene	ND		10	1.0	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Chrysene	**2.8**	**J**	10	1.0	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Dibenz(a,h)anthracene	ND		10	1.3	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Fluoranthene	**2.9**	**J**	10	1.0	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Fluorene	ND		10	0.48	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Indeno[1,2,3-cd]pyrene	**1.1**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Naphthalene	**1.8**	**J**	10	0.34	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
N-Nitrosodimethylamine	ND		10	2.5	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Phenanthrene	**2.8**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1
Pyrene	**2.8**	**J**	10	1.1	ug/Kg	☼	12/12/12 16:55	12/18/12 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*45 - 130*	*12/12/12 16:55*	*12/18/12 01:21*	*1*
Nitrobenzene-d5	*77*		*40 - 130*	*12/12/12 16:55*	*12/18/12 01:21*	*1*
Terphenyl-d14	*97*		*45 - 130*	*12/12/12 16:55*	*12/18/12 01:21*	*1*

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-2**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	**250**		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-4**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-7**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	250		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-9**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.051		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-12**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-14**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-17**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-19**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-24**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	3.5		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-26**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-29**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	5.7		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Method: None - Benzo(a)pyrene Equivalents

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-31**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.3		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-34**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	0.017		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-36**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-39**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	54		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-41**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-43**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	5.6		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-45**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	ND		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-47**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BaP Equivalence	1.8		0.0050	0.00074	ug/Kg			12/21/12 10:29	1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: TB-121012 — **Lab Sample ID: 280-36846-1**
Date Collected: 12/10/12 08:00 — **Matrix: Water**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	10	J	25	10	ug/L			12/14/12 16:52	1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	107		82 - 110		12/14/12 16:52	1

Client Sample ID: SL-557-SA6-SB-6.0 — **Lab Sample ID: 280-36846-6**
Date Collected: 12/10/12 10:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND	H	1.2	0.38	mg/Kg	☼	12/12/12 12:35	12/12/12 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	110		77 - 123	12/12/12 12:35	12/12/12 19:15	1

Client Sample ID: SL-603-SA6-SB-4.5 — **Lab Sample ID: 280-36846-11**
Date Collected: 12/10/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND	H	1.0	0.33	mg/Kg	☼	12/12/12 12:35	12/12/12 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	107		77 - 123	12/12/12 12:35	12/12/12 19:45	1

Client Sample ID: SL-604-SA6-SB-4.0 — **Lab Sample ID: 280-36846-16**
Date Collected: 12/10/12 09:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND	H	1.1	0.35	mg/Kg	☼	12/12/12 12:35	12/12/12 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	108		77 - 123	12/12/12 12:35	12/12/12 20:14	1

Client Sample ID: SL-596-SA6-SB-4.5 — **Lab Sample ID: 280-36846-28**
Date Collected: 12/10/12 14:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.97	0.32	mg/Kg	☼	12/12/12 12:35	12/12/12 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	109		77 - 123	12/12/12 12:35	12/12/12 20:44	1

Client Sample ID: SL-598-SA6-SB-4.5 — **Lab Sample ID: 280-36846-33**
Date Collected: 12/10/12 13:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.99	0.32	mg/Kg	☼	12/12/12 12:35	12/12/12 21:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	107		77 - 123	12/12/12 12:35	12/12/12 21:13	1

Client Sample ID: SL-601-SA6-SB-4.5 — **Lab Sample ID: 280-36846-38**
Date Collected: 12/10/12 13:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		1.0	0.33	mg/Kg	☼	12/12/12 12:35	12/12/12 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	106		77 - 123	12/12/12 12:35	12/12/12 21:42	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-2**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**82**		10	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1
EFH (C15-C20)	**11**		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1
EFH (C21-C30)	**58**		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1
Total Petroleum Hydrocarbons (C8-C40)	**150**	**B**	4.2	0.70	mg/Kg	☼	12/13/12 14:30	12/14/12 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*49 - 115*	*12/13/12 14:30*	*12/14/12 17:12*	*1*

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-4**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1
EFH (C15-C20)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1
EFH (C21-C30)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1
Total Petroleum Hydrocarbons (C8-C40)	**1.7**	**J B**	4.3	0.74	mg/Kg	☼	12/13/12 14:30	12/14/12 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*49 - 115*	*12/13/12 14:30*	*12/14/12 17:36*	*1*

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-7**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**400**		55	5.5	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5
EFH (C12-C14)	ND		28	5.5	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5
EFH (C15-C20)	**6.6**	**J**	28	5.5	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5
EFH (C21-C30)	**160**		28	5.5	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5
EFH (C8-C11)	ND		28	5.5	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5
Total Petroleum Hydrocarbons (C8-C40)	**570**	**B**	22	3.8	mg/Kg	☼	12/13/12 14:30	12/18/12 14:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*	*D*	*49 - 115*	*12/13/12 14:30*	*12/18/12 14:49*	*5*

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-9**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**420**		100	10	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10
EFH (C12-C14)	ND		52	10	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10
EFH (C15-C20)	ND		52	10	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10
EFH (C21-C30)	**230**		52	10	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10
EFH (C8-C11)	ND		52	10	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10
Total Petroleum Hydrocarbons (C8-C40)	**660**	**B**	42	7.0	mg/Kg	☼	12/13/12 14:30	12/18/12 15:14	10

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89	D	49 - 115	12/13/12 14:30	12/18/12 15:14	10

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-12**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	160		53	5.3	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5
EFH (C12-C14)	ND		26	5.3	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5
EFH (C15-C20)	ND		26	5.3	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5
EFH (C21-C30)	110		26	5.3	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5
EFH (C8-C11)	ND		26	5.3	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5
Total Petroleum Hydrocarbons (C8-C40)	270	B	21	3.6	mg/Kg	☼	12/13/12 14:30	12/18/12 15:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98	D	49 - 115	12/13/12 14:30	12/18/12 15:38	5

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-14**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	18		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1
EFH (C12-C14)	ND		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1
EFH (C15-C20)	ND		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1
EFH (C21-C30)	1.8	J	5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1
EFH (C8-C11)	ND		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1
Total Petroleum Hydrocarbons (C8-C40)	20	B	4.4	0.75	mg/Kg	☼	12/13/12 14:30	12/14/12 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		49 - 115	12/13/12 14:30	12/14/12 20:02	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-17**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	22		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1
EFH (C21-C30)	4.7	J	5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1
Total Petroleum Hydrocarbons (C8-C40)	31	B	4.2	0.72	mg/Kg	☼	12/13/12 14:30	12/14/12 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		49 - 115	12/13/12 14:30	12/14/12 20:26	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-19**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	58		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-19**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	16		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1
Total Petroleum Hydrocarbons (C8-C40)	75	B	4.2	0.71	mg/Kg	☼	12/13/12 14:30	12/14/12 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*49 - 115*	*12/13/12 14:30*	*12/14/12 20:51*	*1*

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-24**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	28		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1
EFH (C15-C20)	1.7	J	5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1
EFH (C21-C30)	7.9		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1
Total Petroleum Hydrocarbons (C8-C40)	37	B	4.3	0.73	mg/Kg	☼	12/13/12 14:30	12/14/12 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*49 - 115*	*12/13/12 14:30*	*12/14/12 21:15*	*1*

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-26**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1
EFH (C12-C14)	ND		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1
EFH (C15-C20)	ND		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1
EFH (C21-C30)	ND		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1
Total Petroleum Hydrocarbons (C8-C40)	1.0	J B	4.1	0.69	mg/Kg	☼	12/13/12 14:30	12/14/12 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*49 - 115*	*12/13/12 14:30*	*12/14/12 21:39*	*1*

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-29**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	74		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1
EFH (C12-C14)	ND		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1
EFH (C15-C20)	2.3	J	5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1
EFH (C21-C30)	28		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1
EFH (C8-C11)	ND		5.5	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1
Total Petroleum Hydrocarbons (C8-C40)	100	B	4.4	0.75	mg/Kg	☼	12/13/12 14:30	12/14/12 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*49 - 115*	*12/13/12 14:30*	*12/14/12 22:03*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8015B - Diesel Range Organics

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-31**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		10	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1
EFH (C12-C14)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1
EFH (C15-C20)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1
EFH (C21-C30)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1
EFH (C8-C11)	ND		5.2	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1
Total Petroleum Hydrocarbons (C8-C40)	**2.1**	**J B**	4.1	0.70	mg/Kg	☼	12/13/12 14:30	12/14/12 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*49 - 115*	*12/13/12 14:30*	*12/14/12 22:52*	*1*

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-34**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**16**		11	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1
EFH (C21-C30)	**3.4**	**J**	5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1
EFH (C8-C11)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1
Total Petroleum Hydrocarbons (C8-C40)	**20**	**B**	4.3	0.72	mg/Kg	☼	12/13/12 14:30	12/14/12 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*49 - 115*	*12/13/12 14:30*	*12/14/12 23:16*	*1*

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-36**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**1.1**	**J**	10	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1
EFH (C15-C20)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1
EFH (C21-C30)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1
Total Petroleum Hydrocarbons (C8-C40)	**2.5**	**J B**	4.0	0.68	mg/Kg	☼	12/13/12 14:30	12/14/12 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*49 - 115*	*12/13/12 14:30*	*12/14/12 23:40*	*1*

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-39**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	**37**		11	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1
EFH (C12-C14)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1
EFH (C15-C20)	**2.1**	**J**	5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1
EFH (C21-C30)	**15**		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1
EFH (C8-C11)	ND		5.4	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1
Total Petroleum Hydrocarbons (C8-C40)	**54**	**B**	4.3	0.74	mg/Kg	☼	12/13/12 14:30	12/15/12 00:04	1

Method: 8015B - Diesel Range Organics (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		49 - 115	12/13/12 14:30	12/15/12 00:04	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-41**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	1.1	J	11	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1
EFH (C12-C14)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1
EFH (C15-C20)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1
EFH (C21-C30)	ND		5.3	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1
EFH (C8-C11)	ND		5.3	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1
Total Petroleum Hydrocarbons (C8-C40)	2.7	J B	4.2	0.71	mg/Kg	☼	12/13/12 14:30	12/15/12 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	64		49 - 115	12/13/12 14:30	12/15/12 00:29	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-43**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	80		10	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1
EFH (C12-C14)	1.9	J	5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1
EFH (C15-C20)	5.7		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1
EFH (C21-C30)	40		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1
EFH (C8-C11)	ND		5.1	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1
Total Petroleum Hydrocarbons (C8-C40)	130	B	4.1	0.69	mg/Kg	☼	12/13/12 14:30	12/15/12 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	99		49 - 115	12/13/12 14:30	12/15/12 00:53	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-45**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	18		11	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1
EFH (C12-C14)	ND		5.6	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1
EFH (C15-C20)	1.4	J	5.6	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1
EFH (C21-C30)	3.9	J	5.6	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1
EFH (C8-C11)	ND		5.6	1.1	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1
Total Petroleum Hydrocarbons (C8-C40)	24	B	4.5	0.76	mg/Kg	☼	12/13/12 14:30	12/15/12 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		49 - 115	12/13/12 14:30	12/15/12 01:17	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-47**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	82		10	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1
EFH (C12-C14)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1
EFH (C15-C20)	1.3	J	5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1

Method: 8015B - Diesel Range Organics (Continued)

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-47**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EFH (C21-C30)	**13**		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1
EFH (C8-C11)	ND		5.0	1.0	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1
Total Petroleum Hydrocarbons (C8-C40)	**97**	**B**	4.0	0.68	mg/Kg	☼	12/13/12 14:30	12/15/12 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*49 - 115*	*12/13/12 14:30*	*12/15/12 01:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-3**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.4	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1221	ND		35	17	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1242	ND		18	9.7	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1254	**54**		18	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1260	**39**		18	2.8	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 5432	ND		53	17	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 5442	ND		53	34	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1
Aroclor 5460	**31**	**J**	53	18	ug/Kg	☼	12/13/12 15:50	12/17/12 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*12/13/12 15:50*	*12/17/12 16:24*	*1*
Tetrachloro-m-xylene	*103*		*45 - 120*	*12/13/12 15:50*	*12/17/12 16:24*	*1*

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-5**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.4	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1221	ND		35	16	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1232	ND		18	5.4	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1242	ND		18	9.6	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1248	ND		18	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1254	ND		18	5.8	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 5432	ND		53	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 5442	ND		53	34	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1
Aroclor 5460	ND		53	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*46*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:11*	*1*
Tetrachloro-m-xylene	*76*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:11*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1242	ND		18	9.8	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1254	ND		18	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1262	ND		36	12	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*57*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:32*	*1*
Tetrachloro-m-xylene	*101*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:32*	*1*

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-10**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1221	ND		35	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1242	ND		18	9.8	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1254	ND		18	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:54*	*1*
Tetrachloro-m-xylene	*70*		*45 - 120*	*12/13/12 15:50*	*12/17/12 18:54*	*1*

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		36	4.4	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 5442	ND		55	36	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/13/12 15:50	12/17/12 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*45 - 120*	*12/13/12 15:50*	*12/17/12 19:15*	*1*
Tetrachloro-m-xylene	*104*		*45 - 120*	*12/13/12 15:50*	*12/17/12 19:15*	*1*

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1254	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*57*		*45 - 120*	*12/13/12 15:50*	*12/17/12 19:37*	*1*
Tetrachloro-m-xylene	*113*		*45 - 120*	*12/13/12 15:50*	*12/17/12 19:37*	*1*

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-18**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.8	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1232	ND		19	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1248	ND		19	6.4	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1254	ND		19	6.3	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1260	ND		19	3.0	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 1268	ND		38	4.5	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 5432	ND		57	18	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 5442	ND		57	37	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1
Aroclor 5460	ND		57	19	ug/Kg	☼	12/13/12 15:50	12/17/12 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*43*	*X*	*45 - 120*	*12/13/12 15:50*	*12/17/12 19:58*	*1*
Tetrachloro-m-xylene	*83*		*45 - 120*	*12/13/12 15:50*	*12/17/12 19:58*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-20**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		75	22	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1221	ND		150	69	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1232	ND		75	23	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1242	ND		75	40	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1248	**570**		75	25	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1254	ND		75	24	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1260	ND		75	12	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1262	ND		150	51	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 1268	ND		150	17	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 5432	ND		220	70	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 5442	ND		220	140	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4
Aroclor 5460	ND		220	73	ug/Kg	☼	12/13/12 15:50	12/21/12 11:53	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*	*D*	*45 - 120*	*12/13/12 15:50*	*12/21/12 11:53*	*4*
Tetrachloro-m-xylene	*86*	*D*	*45 - 120*	*12/13/12 15:50*	*12/21/12 11:53*	*4*

Client Sample ID: SL-654A-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36846-21**
Date Collected: 12/10/12 08:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1232	ND		18	5.6	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1248	**110**		18	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1254	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*12/13/12 15:50*	*12/17/12 20:41*	*1*
Tetrachloro-m-xylene	*102*		*45 - 120*	*12/13/12 15:50*	*12/17/12 20:41*	*1*

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-22**
Date Collected: 12/10/12 09:05 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1248	**30**		20	6.5	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1254	ND		20	6.4	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1260	ND		20	3.1	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-22**
Date Collected: 12/10/12 09:05 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		38	4.6	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 5432	ND		58	18	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 5442	ND		58	37	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1
Aroclor 5460	ND		58	19	ug/Kg	☼	12/13/12 15:50	12/17/12 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:02*	*1*
Tetrachloro-m-xylene	*95*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:02*	*1*

Client Sample ID: SL-654C-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-23**
Date Collected: 12/10/12 09:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1242	ND		18	9.8	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1248	**29**		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1254	ND		18	5.9	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1262	ND		36	12	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*57*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:24*	*1*
Tetrachloro-m-xylene	*107*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:24*	*1*

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-25**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.6	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1221	ND		37	17	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 1268	ND		37	4.4	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 5432	ND		55	17	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 5442	ND		55	36	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1
Aroclor 5460	ND		55	18	ug/Kg	☼	12/13/12 15:50	12/17/12 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:45*	*1*
Tetrachloro-m-xylene	*65*		*45 - 120*	*12/13/12 15:50*	*12/17/12 21:45*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.2	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1232	ND		17	5.2	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1242	ND		17	9.3	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1248	ND		17	5.7	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1254	ND		17	5.6	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1260	ND		17	2.7	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 1268	ND		34	4.0	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 5432	ND		51	16	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 5442	ND		51	33	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1
Aroclor 5460	ND		51	17	ug/Kg	☼	12/13/12 15:50	12/17/12 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*45 - 120*	*12/13/12 15:50*	*12/17/12 22:06*	*1*
Tetrachloro-m-xylene	*85*		*45 - 120*	*12/13/12 15:50*	*12/17/12 22:06*	*1*

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1254	**17**	**J**	18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:11*	*1*
Tetrachloro-m-xylene	*99*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:11*	*1*

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1242	ND		18	9.5	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1248	ND		18	5.8	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1254	ND		18	5.7	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1260	ND		18	2.8	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 5442	ND		52	34	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/13/12 15:50	12/17/12 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:32*	*1*
Tetrachloro-m-xylene	*66*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:32*	*1*

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-35**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1232	ND		18	5.6	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1254	ND		18	6.0	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/13/12 15:50	12/17/12 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:54*	*1*
Tetrachloro-m-xylene	*90*		*45 - 120*	*12/13/12 15:50*	*12/17/12 23:54*	*1*

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.3	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1221	ND		34	16	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1232	ND		18	5.3	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1242	ND		18	9.4	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1248	ND		18	5.8	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1254	ND		18	5.7	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1260	ND		18	2.7	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1262	ND		34	12	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 1268	ND		34	4.1	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 5432	ND		52	16	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 5442	ND		52	33	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1
Aroclor 5460	ND		52	17	ug/Kg	☼	12/14/12 10:15	12/18/12 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*12/14/12 10:15*	*12/18/12 01:19*	*1*
Tetrachloro-m-xylene	*87*		*45 - 120*	*12/14/12 10:15*	*12/18/12 01:19*	*1*

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1254	**49**		18	6.0	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1
Aroclor 5460	**60**		54	18	ug/Kg	☼	12/14/12 10:15	12/18/12 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:06*	*1*
Tetrachloro-m-xylene	*86*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:06*	*1*

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-42**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		19	5.7	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1221	ND		37	17	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1232	ND		19	5.7	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1242	ND		19	10	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1248	ND		19	6.2	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1254	ND		19	6.1	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1260	ND		19	2.9	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1262	ND		37	13	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 1268	ND		37	4.4	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 5432	ND		56	18	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 5442	ND		56	36	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1
Aroclor 5460	ND		56	18	ug/Kg	☼	12/14/12 10:15	12/18/12 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*62*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:28*	*1*
Tetrachloro-m-xylene	*86*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:28*	*1*

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1221	ND		36	17	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1242	ND		18	9.9	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1248	ND		18	6.1	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1254	ND		18	6.0	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 1262	ND		36	13	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	ND		36	4.3	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/14/12 10:15	12/18/12 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:49*	*1*
Tetrachloro-m-xylene	*71*		*45 - 120*	*12/14/12 10:15*	*12/18/12 03:49*	*1*

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-46**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		20	5.9	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1221	ND		38	18	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1232	ND		20	5.9	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1242	ND		20	11	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1248	ND		20	6.5	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1254	ND		20	6.4	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1260	ND		20	3.1	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1262	ND		38	13	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 1268	ND		38	4.6	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 5432	ND		58	18	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 5442	ND		58	37	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1
Aroclor 5460	ND		58	19	ug/Kg	☼	12/14/12 10:15	12/18/12 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*45 - 120*	*12/14/12 10:15*	*12/18/12 04:11*	*1*
Tetrachloro-m-xylene	*95*		*45 - 120*	*12/14/12 10:15*	*12/18/12 04:11*	*1*

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1221	ND		35	17	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1232	ND		18	5.5	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1242	ND		18	9.8	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1248	ND		18	6.0	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1254	**15**	**J**	18	5.9	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1260	ND		18	2.9	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1262	ND		35	12	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 1268	ND		35	4.2	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 5432	ND		54	17	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 5442	ND		54	35	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1
Aroclor 5460	ND		54	18	ug/Kg	☼	12/14/12 10:15	12/18/12 04:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*45 - 120*	*12/14/12 10:15*	*12/18/12 04:32*	*1*
Tetrachloro-m-xylene	*98*		*45 - 120*	*12/14/12 10:15*	*12/18/12 04:32*	*1*

Method: 8315A - Carbonyl Compounds by HPLC

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-49**
Date Collected: 12/07/12 07:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		2000	800	ug/Kg	☼	12/17/12 14:13	12/20/12 00:36	1

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36846-50**
Date Collected: 12/07/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	760	ug/Kg	☼	12/17/12 14:13	12/20/12 01:02	1

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36846-51**
Date Collected: 12/07/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	770	ug/Kg	☼	12/17/12 14:13	12/20/12 02:19	1

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-52**
Date Collected: 12/07/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	760	ug/Kg	☼	12/17/12 14:13	12/20/12 02:45	1

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-53**
Date Collected: 12/07/12 10:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 94.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1800	720	ug/Kg	☼	12/17/12 14:13	12/20/12 03:10	1

Client Sample ID: SL-545-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36846-54**
Date Collected: 12/07/12 10:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1800	750	ug/Kg	☼	12/17/12 14:13	12/20/12 03:36	1

Client Sample ID: SL-547-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-55**
Date Collected: 12/07/12 12:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	**1100**	**J**	1800	720	ug/Kg	☼	12/17/12 14:13	12/20/12 04:53	1

Client Sample ID: SL-547-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-56**
Date Collected: 12/07/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	**780**	**J**	1900	750	ug/Kg	☼	12/17/12 14:13	12/20/12 05:19	1

Client Sample ID: SL-547-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36846-57**
Date Collected: 12/07/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	780	ug/Kg	☼	12/17/12 14:13	12/20/12 05:44	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-3**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	22000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Boron	1.2	J	11	1.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Calcium	2100		56	16	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Iron	19000		38	4.2	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Lithium	20	J ^ B	41	0.34	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Magnesium	4200		11	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Manganese	300	J	550	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Phosphorus	420		11	1.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Potassium	3800	J	7200	46	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Sodium	97	J	560	66	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Strontium	16		0.55	0.040	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Tin	1.6	J	12	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Titanium	870		1.1	0.16	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1
Zirconium	1.6	J	9.6	0.40	mg/Kg	☼	12/14/12 08:00	12/14/12 16:21	1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-5**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	21000		19000	1.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Boron	ND		9.1	0.92	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Calcium	6800		47	13	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Iron	36000		32	3.6	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Lithium	59	B	35	0.28	mg/Kg	☼	12/14/12 08:00	12/17/12 16:03	1
Magnesium	8100		9.4	3.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Manganese	480		460	0.094	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Phosphorus	680		9.4	1.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Potassium	3500	J	6000	38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Sodium	630		470	55	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Strontium	27		0.46	0.034	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Tin	2.9	J	10	0.85	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Titanium	1200		0.93	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1
Zirconium	2.1	J	8.0	0.33	mg/Kg	☼	12/14/12 08:00	12/14/12 16:24	1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	19000	1.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Boron	ND		9.1	0.92	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Calcium	2100		47	13	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Iron	21000		32	3.6	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Lithium	19	J ^ B	35	0.28	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Magnesium	4300		9.4	3.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Manganese	310	J	470	0.094	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Phosphorus	370		9.4	1.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Potassium	4100	J	6000	39	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Sodium	97	J	470	56	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Strontium	20		0.47	0.034	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Tin	1.7	J	10	0.86	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	950		0.94	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1
Zirconium	1.8	J	8.1	0.33	mg/Kg	☼	12/14/12 08:00	12/14/12 16:26	1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-10**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000	J	21000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Boron	ND		10	1.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Calcium	1900		54	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Iron	22000		36	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Lithium	21	J ^ B	40	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Magnesium	4800		11	4.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Manganese	160	J	530	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Phosphorus	210		11	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Potassium	2000	J	6900	44	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Sodium	280	J	540	63	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Strontium	17		0.53	0.039	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Tin	1.9	J	12	0.98	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Titanium	900		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1
Zirconium	1.3	J	9.2	0.38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:29	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000	J	20000	1.5	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Boron	1.5	J	9.6	0.97	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Calcium	1600		49	14	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Iron	20000		34	3.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Lithium	21	J ^ B	37	0.30	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Magnesium	4300		9.9	3.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Manganese	250	J	490	0.099	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Phosphorus	200		9.9	1.6	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Potassium	2400	J	6300	40	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Sodium	240	J	490	58	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Strontium	18		0.49	0.036	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Tin	1.7	J	11	0.90	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Titanium	930		0.98	0.14	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1
Zirconium	1.8	J	8.5	0.35	mg/Kg	☼	12/14/12 08:00	12/14/12 16:31	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	21000	J	22000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Boron	ND		11	1.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Calcium	3300		54	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Iron	33000		37	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Lithium	47	B	40	0.33	mg/Kg	☼	12/14/12 08:00	12/17/12 16:06	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	7800		11	4.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Manganese	240	J	540	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Phosphorus	520		11	1.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Potassium	3000	J	6900	44	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Sodium	790		540	64	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Strontium	25		0.54	0.039	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Tin	3.0	J	12	0.99	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Titanium	1000		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1
Zirconium	2.4	J	9.3	0.38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:33	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-18**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000	J	21000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Boron	2.2	J	10	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Calcium	6700		53	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Iron	19000		36	4.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Lithium	17	J ^ B	39	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Magnesium	4700		11	3.9	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Manganese	250	J	530	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Phosphorus	330		11	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Potassium	3100	J	6800	44	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Sodium	81	J	530	63	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Strontium	23		0.53	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Tin	1.3	J	12	0.97	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Titanium	640		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1
Zirconium	2.8	J	9.2	0.38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:36	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-20**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20000	J	22000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Boron	3.4	J	11	1.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Calcium	11000		55	16	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Iron	24000		37	4.2	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Lithium	21	J B ^	41	0.33	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Magnesium	6000		11	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Manganese	340	J	540	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Phosphorus	450		11	1.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Potassium	4300	J	7000	45	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Sodium	100	J	550	65	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Strontium	34		0.54	0.040	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Tin	1.6	J	12	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Titanium	840		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1
Zirconium	3.7	J	9.5	0.39	mg/Kg	☼	12/14/12 08:00	12/14/12 16:47	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-25**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	21000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Boron	ND		10	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Calcium	2200		53	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Iron	17000		36	4.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Lithium	18	J B ^	39	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Magnesium	3700		11	3.9	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Manganese	280	J	530	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Phosphorus	450		11	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Potassium	3800	J	6800	44	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Sodium	81	J	530	63	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Strontium	18		0.53	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Tin	1.4	J	12	0.97	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Titanium	800		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1
Zirconium	1.5	J	9.2	0.38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:49	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10000	J	21000	1.6	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Boron	ND		10	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Calcium	2200		52	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Iron	18000		35	3.9	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Lithium	22	J B ^	38	0.31	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Magnesium	4700		10	3.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Manganese	270	J	510	0.10	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Phosphorus	330		10	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Potassium	2200	J	6600	42	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Sodium	100	J	520	61	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Strontium	14		0.51	0.037	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Tin	1.6	J	11	0.94	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Titanium	880		1.0	0.14	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1
Zirconium	1.0	J	8.9	0.37	mg/Kg	☼	12/14/12 08:00	12/14/12 16:51	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	22000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Boron	1.6	J	11	1.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Calcium	3200		55	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Iron	17000		37	4.2	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Lithium	18	J B ^	41	0.33	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Magnesium	3900		11	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Manganese	310	J	540	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Phosphorus	430		11	1.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Potassium	3400	J	7000	45	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Sodium	80	J	550	65	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Strontium	25		0.54	0.040	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Tin	1.5	J	12	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	840		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1
Zirconium	1.6	J	9.4	0.39	mg/Kg	☼	12/14/12 08:00	12/14/12 16:54	1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000	J	20000	1.6	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Boron	ND		9.9	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Calcium	1700		51	14	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Iron	20000		35	3.9	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Lithium	23	J B ^	38	0.31	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Magnesium	4500		10	3.8	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Manganese	300	J	510	0.10	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Phosphorus	320		10	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Potassium	2800	J	6500	42	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Sodium	110	J	510	60	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Strontium	17		0.51	0.037	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Tin	1.6	J	11	0.93	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Titanium	940		1.0	0.14	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1
Zirconium	1.8	J	8.8	0.36	mg/Kg	☼	12/14/12 08:00	12/14/12 16:56	1

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-35**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000	J	21000	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Boron	ND		10	1.0	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Calcium	2300		53	15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Iron	19000		36	4.1	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Lithium	19	J B ^	39	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Magnesium	4100		11	3.9	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Manganese	350	J	530	0.11	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Phosphorus	480		11	1.7	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Potassium	3900	J	6800	44	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Sodium	74	J	530	63	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Strontium	21		0.53	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Tin	1.3	J	12	0.97	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Titanium	860		1.1	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1
Zirconium	1.5	J	9.2	0.38	mg/Kg	☼	12/14/12 08:00	12/14/12 16:58	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	18000	J	20000	1.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Boron	1.4	J	9.8	0.99	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Calcium	2000		50	14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Iron	22000	B	34	3.8	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Lithium	24	J	37	0.30	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	4600		10	3.7	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Manganese	300	J B	500	0.10	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Phosphorus	310		10	1.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Potassium	2900	J	6400	41	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Sodium	150	J	500	59	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Strontium	19		0.50	0.036	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Tin	1.6	J	11	0.92	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Titanium	950		1.0	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1
Zirconium	2.1	J	8.7	0.36	mg/Kg	☼	12/17/12 08:00	12/17/12 17:39	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	22000	1.7	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Boron	3.1	J	11	1.1	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Calcium	2400		54	15	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Iron	19000	B	37	4.1	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Lithium	20	J	40	0.33	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Magnesium	4300		11	4.0	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Manganese	310	J B	540	0.11	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Phosphorus	490		11	1.8	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Potassium	4300	J	7000	45	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Sodium	88	J	540	64	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Strontium	18		0.54	0.039	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Tin	1.4	J	12	0.99	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Titanium	900		1.1	0.15	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1
Zirconium	1.5	J	9.4	0.39	mg/Kg	☼	12/17/12 08:00	12/17/12 17:41	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-42**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	19000	1.5	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Boron	2.4	J	9.2	0.93	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Calcium	2200		47	13	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Iron	16000	B	32	3.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Lithium	18	J	35	0.28	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Magnesium	3600		9.5	3.5	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Manganese	380	J B	470	0.095	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Phosphorus	360		9.5	1.5	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Potassium	3800	J	6100	39	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Sodium	87	J	470	56	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Strontium	20		0.47	0.034	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Tin	1.2	J	10	0.87	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Titanium	860		0.94	0.13	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1
Zirconium	1.7	J	8.2	0.34	mg/Kg	☼	12/17/12 08:00	12/17/12 17:44	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6010C - Metals (ICP)

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000	J	22000	1.7	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Boron	2.4	J	11	1.1	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Calcium	2400		55	16	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Iron	16000	B	37	4.2	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Lithium	17	J	41	0.33	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Magnesium	3700		11	4.1	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Manganese	360	J B	550	0.11	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Phosphorus	410		11	1.8	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Potassium	3400	J	7100	45	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Sodium	93	J	550	65	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Strontium	21		0.55	0.040	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Tin	1.3	J	12	1.0	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Titanium	840		1.1	0.15	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1
Zirconium	1.6	J	9.5	0.39	mg/Kg	☼	12/17/12 08:00	12/17/12 17:46	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-46**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	26000		20000	1.5	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Boron	6.0	J	9.7	0.98	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Calcium	19000		50	14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Iron	30000	B	34	3.8	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Lithium	23	J	37	0.30	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Magnesium	7700		10	3.7	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Manganese	430	J B	490	0.10	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Phosphorus	470		10	1.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Potassium	5500	J	6400	41	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Sodium	120	J	500	59	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Strontium	43		0.49	0.036	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Tin	1.7	J	11	0.91	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Titanium	770		0.99	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1
Zirconium	4.3	J	8.6	0.35	mg/Kg	☼	12/17/12 08:00	12/17/12 17:48	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	J	19000	1.5	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Boron	1.6	J	9.4	0.95	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Calcium	2100		49	14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Iron	17000	B	33	3.7	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Lithium	20	J	36	0.29	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Magnesium	4100		9.7	3.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Manganese	300	J B	480	0.097	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Phosphorus	360		9.7	1.6	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Potassium	3200	J	6200	40	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Sodium	110	J ^	490	57	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Strontium	30		0.48	0.035	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Tin	1.4	J	11	0.89	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	880		0.97	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1
Zirconium	1.8	J	8.4	0.34	mg/Kg	☼	12/17/12 08:00	12/17/12 17:19	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-3**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.044	J	9.0	0.015	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Arsenic	4.2	J	16	0.052	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Barium	99	J	150	0.073	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Beryllium	0.61	J	1.1	0.023	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Cadmium	0.66	J	1.0	0.0097	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Chromium	35	J	38	0.079	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Cobalt	7.0	J	22	0.0069	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Copper	18	J	30	0.074	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Lead	89		35	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Molybdenum	0.85	J	5.5	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Nickel	29	J	30	0.026	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Selenium	0.86		0.68	0.14	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Silver	1.5		0.82	0.021	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Thallium	0.29	J B	0.48	0.0036	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Vanadium	36	J	64	0.040	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1
Zinc	83	J	110	0.33	mg/Kg	☼	12/14/12 08:00	12/14/12 17:12	1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-5**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.015	J	8.1	0.013	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Arsenic	7.2	J	14	0.047	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Barium	150		130	0.066	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Beryllium	1.2		1.0	0.021	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Cadmium	0.59	J	0.94	0.0088	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Chromium	29	J	34	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Cobalt	13	J	20	0.0062	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Copper	22	J	27	0.067	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Lead	17	J	32	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Molybdenum	0.33	J	5.0	0.016	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Nickel	22	J	27	0.024	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Selenium	1.3		0.61	0.12	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Silver	0.033	J	0.74	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Thallium	0.38	J B	0.43	0.0033	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Vanadium	49	J	58	0.036	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1
Zinc	110		100	0.30	mg/Kg	☼	12/14/12 08:00	12/14/12 17:15	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.021	J	9.6	0.015	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Arsenic	5.9	J	16	0.056	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Barium	100	J	150	0.077	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Beryllium	0.58	J	1.2	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Cadmium	0.58	J	1.1	0.010	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Chromium	19	J	40	0.083	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Cobalt	6.7	J	23	0.0073	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Copper	15	J	32	0.078	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Lead	7.7	J	37	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Molybdenum	0.41	J	5.8	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Nickel	14	J	32	0.028	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Selenium	0.90		0.72	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Silver	0.060	J	0.87	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Thallium	0.28	J B	0.51	0.0039	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Vanadium	35	J	68	0.042	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1
Zinc	71	J	120	0.35	mg/Kg	☼	12/14/12 08:00	12/14/12 17:18	1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-10**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.6	0.014	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Arsenic	5.2	J	15	0.050	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Barium	75	J	140	0.070	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Beryllium	0.80	J	1.1	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Cadmium	0.15	J	0.99	0.0093	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Chromium	21	J	37	0.076	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Cobalt	5.0	J	21	0.0066	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Copper	8.3	J	29	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Lead	6.8	J	34	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Molybdenum	0.17	J	5.3	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Nickel	11	J	29	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Selenium	1.2		0.65	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Silver	0.085	J	0.79	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Thallium	0.25	J B	0.46	0.0035	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Vanadium	37	J	62	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1
Zinc	62	J	110	0.31	mg/Kg	☼	12/14/12 08:00	12/14/12 17:21	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.1	0.013	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Arsenic	4.7	J	14	0.047	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Barium	86	J	130	0.066	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Beryllium	0.72	J	1.0	0.021	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Cadmium	0.15	J	0.93	0.0087	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Chromium	18	J	34	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Cobalt	8.5	J	20	0.0062	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Copper	12	J	27	0.066	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.4	J	32	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Molybdenum	0.36	J	4.9	0.016	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Nickel	12	J	27	0.024	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Selenium	0.81		0.61	0.12	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Silver	0.031	J	0.73	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Thallium	0.26	J B	0.43	0.0033	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Vanadium	41	J	58	0.036	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1
Zinc	52	J	100	0.29	mg/Kg	☼	12/14/12 08:00	12/14/12 17:24	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.014	J	8.7	0.014	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Arsenic	6.9	J	15	0.050	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Barium	220		140	0.070	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Beryllium	1.6		1.1	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Cadmium	0.31	J	1.0	0.0094	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Chromium	39		37	0.076	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Cobalt	13	J	21	0.0066	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Copper	27	J	29	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Lead	17	J	34	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Molybdenum	0.52	J	5.3	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Nickel	24	J	29	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Selenium	3.4		0.65	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Silver	0.047	J	0.79	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Thallium	0.41	J B	0.46	0.0035	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Vanadium	66		62	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1
Zinc	110		110	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 17:27	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-18**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.015	J	9.5	0.015	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Arsenic	5.5	J	16	0.055	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Barium	110	J	150	0.077	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Beryllium	0.81	J	1.2	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Cadmium	0.42	J	1.1	0.010	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Chromium	28	J	40	0.083	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Cobalt	9.9	J	23	0.0073	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Copper	15	J	32	0.078	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Lead	9.8	J	37	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Molybdenum	0.27	J	5.8	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Nickel	22	J	32	0.028	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Selenium	1.1		0.72	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Silver	0.048	J	0.87	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Thallium	0.33	J B	0.50	0.0038	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Vanadium	53	J	68	0.042	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1
Zinc	81	J	120	0.35	mg/Kg	☼	12/14/12 08:00	12/14/12 17:29	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-20**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10	0.016	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Arsenic	5.1	J	17	0.058	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Barium	110	J	160	0.081	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Beryllium	0.78	J	1.3	0.026	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Cadmium	0.49	J	1.1	0.011	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Chromium	27	J	42	0.087	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Cobalt	8.6	J	24	0.0076	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Copper	15	J	33	0.081	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Lead	20	J	39	0.021	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Molybdenum	0.29	J	6.1	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Nickel	18	J	33	0.029	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Selenium	1.1		0.75	0.15	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Silver	0.23	J	0.90	0.023	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Thallium	0.30	J B	0.53	0.0040	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Vanadium	48	J	71	0.044	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1
Zinc	86	J	130	0.36	mg/Kg	☼	12/14/12 08:00	12/14/12 17:32	1

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-25**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.029	J	8.8	0.014	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Arsenic	3.6	J	15	0.051	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Barium	97	J	140	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Beryllium	0.55	J	1.1	0.023	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Cadmium	0.40	J	1.0	0.0094	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Chromium	18	J	37	0.077	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Cobalt	6.0	J	21	0.0067	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Copper	11	J	29	0.072	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Lead	15	J	34	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Molybdenum	0.41	J	5.3	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Nickel	12	J	29	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Selenium	0.81		0.66	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Silver	0.25	J	0.80	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Thallium	0.25	J B	0.46	0.0035	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Vanadium	33	J	62	0.039	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1
Zinc	65	J	110	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 18:28	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.018	J	8.3	0.013	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Arsenic	4.1	J	14	0.048	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Barium	66	J	130	0.067	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Beryllium	0.42	J	1.0	0.021	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Cadmium	0.14	J	0.95	0.0089	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Chromium	21	J	35	0.072	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Cobalt	6.1	J	20	0.0063	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Copper	8.8	J	28	0.068	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.3	J	32	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Molybdenum	0.28	J	5.0	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Nickel	13	J	28	0.024	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Selenium	0.83		0.62	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Silver	ND		0.75	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Thallium	0.23	J B	0.44	0.0033	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Vanadium	36	J	59	0.037	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1
Zinc	49	J	100	0.30	mg/Kg	☼	12/14/12 08:00	12/14/12 18:31	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.032	J	9.4	0.015	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Arsenic	3.3	J	16	0.054	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Barium	110	J	150	0.076	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Beryllium	0.56	J	1.2	0.024	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Cadmium	0.49	J	1.1	0.010	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Chromium	18	J	40	0.082	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Cobalt	6.7	J	23	0.0071	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Copper	11	J	31	0.077	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Lead	17	J	37	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Molybdenum	0.47	J	5.7	0.019	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Nickel	13	J	31	0.027	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Selenium	0.73		0.71	0.14	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Silver	1.4		0.85	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Thallium	0.24	J B	0.50	0.0038	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Vanadium	30	J	67	0.041	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1
Zinc	120		120	0.34	mg/Kg	☼	12/14/12 08:00	12/14/12 18:34	1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.5	0.014	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Arsenic	4.1	J	15	0.049	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Barium	93	J	140	0.069	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Beryllium	0.64	J	1.1	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Cadmium	0.17	J	0.97	0.0091	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Chromium	20	J	36	0.074	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Cobalt	6.0	J	20	0.0065	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Copper	8.7	J	28	0.069	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Lead	5.8	J	33	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Molybdenum	0.41	J	5.2	0.017	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Nickel	13	J	28	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Selenium	0.80		0.64	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Silver	0.060	J	0.77	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Thallium	0.26	J B	0.45	0.0034	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Vanadium	38	J	60	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1
Zinc	51	J	110	0.31	mg/Kg	☼	12/14/12 08:00	12/14/12 18:37	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-35**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.022	J	8.7	0.014	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Arsenic	3.1	J	15	0.051	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Barium	100	J	140	0.070	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Beryllium	0.53	J	1.1	0.022	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Cadmium	0.39	J	1.0	0.0094	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Chromium	17	J	37	0.076	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Cobalt	5.7	J	21	0.0066	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Copper	10	J	29	0.071	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Lead	10	J	34	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Molybdenum	0.45	J	5.3	0.018	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Nickel	13	J	29	0.025	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Selenium	0.80		0.65	0.13	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Silver	0.30	J	0.79	0.020	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Thallium	0.26	J B	0.46	0.0035	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Vanadium	28	J	62	0.038	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1
Zinc	58	J	110	0.32	mg/Kg	☼	12/14/12 08:00	12/14/12 18:51	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	J	7.8	0.013	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Arsenic	4.2	J	13	0.045	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Barium	100	J	130	0.063	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Beryllium	0.72	J	0.98	0.020	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Cadmium	0.21	J	0.89	0.0084	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Chromium	20	J	33	0.068	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Cobalt	6.2	J	19	0.0059	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Copper	9.6	J	26	0.064	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Lead	6.0	J	30	0.016	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Molybdenum	0.46	J	4.7	0.016	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Nickel	13	J	26	0.023	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Selenium	0.96	B	0.59	0.12	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Silver	0.047	J	0.71	0.018	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Thallium	0.30	J	0.41	0.0031	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Vanadium	36	J	55	0.034	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1
Zinc	51	J	98	0.28	mg/Kg	☼	12/17/12 08:00	12/17/12 21:54	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.023	J	8.2	0.013	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Arsenic	3.7	J	14	0.048	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Barium	100	J	130	0.066	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Beryllium	0.56	J	1.0	0.021	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Cadmium	0.47	J	0.94	0.0088	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Chromium	19	J	35	0.071	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Cobalt	5.9	J	20	0.0062	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Copper	12	J	27	0.067	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12	J	32	0.017	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Molybdenum	0.44	J	5.0	0.017	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Nickel	14	J	27	0.024	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Selenium	0.86	B	0.61	0.12	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Silver	0.14	J	0.74	0.019	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Thallium	0.28	J	0.43	0.0033	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Vanadium	31	J	58	0.036	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1
Zinc	73	J	100	0.30	mg/Kg	☼	12/17/12 08:00	12/17/12 21:57	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-42**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.021	J	9.2	0.015	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Arsenic	2.5	J	16	0.054	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Barium	100	J	150	0.075	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Beryllium	0.52	J	1.2	0.024	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Cadmium	0.34	J	1.1	0.0099	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Chromium	14	J	39	0.080	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Cobalt	5.0	J	22	0.0070	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Copper	8.3	J	31	0.075	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Lead	9.1	J	36	0.019	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Molybdenum	0.41	J	5.6	0.019	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Nickel	10	J	31	0.027	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Selenium	0.75	B	0.69	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Silver	0.054	J	0.84	0.021	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Thallium	0.25	J	0.49	0.0037	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Vanadium	26	J	66	0.041	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1
Zinc	51	J	120	0.33	mg/Kg	☼	12/17/12 08:00	12/17/12 22:00	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.023	J	8.5	0.014	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Arsenic	2.6	J	15	0.049	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Barium	100	J	140	0.069	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Beryllium	0.52	J	1.1	0.022	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Cadmium	0.40	J	0.98	0.0092	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Chromium	14	J	36	0.074	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Cobalt	5.0	J	20	0.0065	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Copper	9.3	J	28	0.069	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Lead	14	J	33	0.018	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Molybdenum	0.40	J	5.2	0.017	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Nickel	11	J	28	0.025	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Selenium	0.77	B	0.64	0.13	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Silver	0.14	J	0.77	0.020	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Thallium	0.24	J	0.45	0.0034	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Vanadium	25	J	61	0.038	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1
Zinc	65	J	110	0.31	mg/Kg	☼	12/17/12 08:00	12/17/12 22:03	1

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-46**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.027	J	9.5	0.015	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Arsenic	5.2	J	16	0.055	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Barium	120	J	150	0.077	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Beryllium	0.96	J	1.2	0.024	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Cadmium	0.58	J	1.1	0.010	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Chromium	31	J	40	0.083	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Cobalt	11	J	23	0.0072	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Copper	17	J	32	0.077	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Lead	9.8	J	37	0.020	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Molybdenum	0.22	J	5.8	0.019	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Nickel	21	J	32	0.028	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Selenium	1.1	B	0.71	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Silver	0.051	J	0.86	0.022	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Thallium	0.35	J	0.50	0.0038	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Vanadium	54	J	67	0.042	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1
Zinc	74	J	120	0.34	mg/Kg	☼	12/17/12 08:00	12/17/12 22:41	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.021	J	8.9	0.014	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Arsenic	3.5	J	15	0.052	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Barium	100	J	140	0.072	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Beryllium	0.52	J	1.1	0.023	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Cadmium	0.28	J	1.0	0.0096	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Chromium	18	J	38	0.078	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Cobalt	5.8	J	22	0.0068	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Copper	9.1	J	30	0.073	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Lead	9.6	J	35	0.019	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Molybdenum	0.46	J	5.4	0.018	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Nickel	12	J	30	0.026	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Selenium	0.92	B	0.67	0.14	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Silver	0.071	J	0.81	0.021	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Thallium	0.25	J	0.47	0.0036	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Vanadium	32	J	64	0.040	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1
Zinc	58	J	110	0.32	mg/Kg	☼	12/17/12 08:00	12/17/12 22:43	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-3**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.023	0.0064	mg/Kg	☼	12/13/12 11:30	12/13/12 16:37	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-5**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.026	0.0071	mg/Kg	☼	12/13/12 11:30	12/13/12 16:49	1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021	J	0.024	0.0067	mg/Kg	☼	12/13/12 11:30	12/13/12 16:51	1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-10**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0063	mg/Kg	☼	12/13/12 11:30	12/13/12 16:54	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.024	0.0067	mg/Kg	☼	12/13/12 11:30	12/13/12 16:56	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.026	0.0073	mg/Kg	☼	12/13/12 11:30	12/13/12 16:59	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-18**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 86.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.026	0.0073	mg/Kg	☼	12/13/12 11:30	12/13/12 17:01	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-20**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023	J	0.025	0.0070	mg/Kg	☼	12/13/12 11:30	12/13/12 17:03	1

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-25**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022	J	0.025	0.0070	mg/Kg	☼	12/13/12 11:30	12/13/12 17:06	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 96.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024	0.0067	mg/Kg	☼	12/13/12 11:30	12/13/12 17:08	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.025	0.0069	mg/Kg	☼	12/13/12 11:30	12/13/12 17:15	1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023	0.0065	mg/Kg	☼	12/13/12 11:30	12/13/12 17:18	1

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-35**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.025	0.0068	mg/Kg	☼	12/13/12 11:30	12/13/12 17:20	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.025	0.0069	mg/Kg	☼	12/18/12 12:10	12/18/12 14:26	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	J	0.026	0.0071	mg/Kg	☼	12/18/12 12:10	12/18/12 14:37	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-42**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.025	0.0068	mg/Kg	☼	12/18/12 12:10	12/18/12 14:39	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.023	0.0063	mg/Kg	☼	12/18/12 12:10	12/18/12 14:42	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-46**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.025	0.0068	mg/Kg	☼	12/18/12 12:10	12/18/12 14:44	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.024	0.0065	mg/Kg	☼	12/18/12 12:10	12/18/12 14:46	1

General Chemistry

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-2**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-3**
Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.46		0.100	0.100	SU			12/14/12 19:39	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:39	1
Percent Moisture	12		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-4**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — **Lab Sample ID: 280-36846-5**
Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.61		0.100	0.100	SU			12/17/12 20:12	1
Temperature	20.9		1.00	1.00	Degrees C			12/17/12 20:12	1
Percent Moisture	8.6		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-557-SA6-SB-6.0 — **Lab Sample ID: 280-36846-6**
Date Collected: 12/10/12 10:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10	0.10	%			12/17/12 10:53	1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-7**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-8**
Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.51		0.100	0.100	SU			12/14/12 19:57	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:57	1
Percent Moisture	12		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-9**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.10	0.10	%			12/17/12 10:52	1

General Chemistry

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-10**
Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.95		0.100	0.100	SU			12/17/12 20:14	1
Temperature	21.0		1.00	1.00	Degrees C			12/17/12 20:14	1
Percent Moisture	9.4		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-603-SA6-SB-4.5 — **Lab Sample ID: 280-36846-11**
Date Collected: 12/10/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.10	0.10	%			12/17/12 10:53	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-12**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-13**
Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.82		0.100	0.100	SU			12/14/12 19:41	1
Temperature	20.2		1.00	1.00	Degrees C			12/14/12 19:41	1
Percent Moisture	10		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-14**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — **Lab Sample ID: 280-36846-15**
Date Collected: 12/10/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.81		0.100	0.100	SU			12/17/12 20:15	1
Temperature	21.0		1.00	1.00	Degrees C			12/17/12 20:15	1
Percent Moisture	10		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-604-SA6-SB-4.0 — **Lab Sample ID: 280-36846-16**
Date Collected: 12/10/12 09:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10	0.10	%			12/17/12 10:53	1

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-17**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/17/12 10:52	1

General Chemistry

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-18**
Date Collected: 12/10/12 10:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.79		0.100	0.100	SU			12/14/12 19:42	1
Temperature	19.9		1.00	1.00	Degrees C			12/14/12 19:42	1
Percent Moisture	14		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-19**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-20**
Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.10		0.100	0.100	SU			12/14/12 19:43	1
Temperature	20.0		1.00	1.00	Degrees C			12/14/12 19:43	1
Percent Moisture	13		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-654A-SA6-SB-2.0-3.0 — **Lab Sample ID: 280-36846-21**
Date Collected: 12/10/12 08:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.3		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-22**
Date Collected: 12/10/12 09:05 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-654C-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-23**
Date Collected: 12/10/12 09:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-24**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-25**
Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.21		0.100	0.100	SU			12/14/12 19:44	1
Temperature	20.3		1.00	1.00	Degrees C			12/14/12 19:44	1
Percent Moisture	11		0.10	0.10	%			12/14/12 09:22	1

General Chemistry

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-26**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-27**
Date Collected: 12/10/12 14:35 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.40		0.100	0.100	SU			12/14/12 19:45	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:45	1
Percent Moisture	3.4		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-596-SA6-SB-4.5 — **Lab Sample ID: 280-36846-28**
Date Collected: 12/10/12 14:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/17/12 10:53	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-29**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-30**
Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.71		0.100	0.100	SU			12/14/12 19:46	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:46	1
Percent Moisture	12		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-31**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.0		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-32**
Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.39		0.100	0.100	SU			12/14/12 19:47	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:47	1
Percent Moisture	5.0		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-598-SA6-SB-4.5 — **Lab Sample ID: 280-36846-33**
Date Collected: 12/10/12 13:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.0		0.10	0.10	%			12/17/12 10:53	1

General Chemistry

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-34**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.1		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-35**
Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.66		0.100	0.100	SU			12/14/12 19:48	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:48	1
Percent Moisture	8.1		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-36**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.4		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-37**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.08		0.100	0.100	SU			12/14/12 19:50	1
Temperature	20.0		1.00	1.00	Degrees C			12/14/12 19:50	1
Percent Moisture	4.4		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-601-SA6-SB-4.5 — **Lab Sample ID: 280-36846-38**
Date Collected: 12/10/12 13:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.4		0.10	0.10	%			12/17/12 10:53	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-39**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-40**
Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.40		0.100	0.100	SU			12/14/12 19:52	1
Temperature	20.2		1.00	1.00	Degrees C			12/14/12 19:52	1
Percent Moisture	8.2		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-41**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		0.10	0.10	%			12/17/12 10:52	1

General Chemistry

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-42**
Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.75		0.100	0.100	SU			12/14/12 19:53	1
Temperature	20.2		1.00	1.00	Degrees C			12/14/12 19:53	1
Percent Moisture	9.9		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-43**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-44**
Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	6.49		0.100	0.100	SU			12/14/12 19:54	1
Temperature	20.3		1.00	1.00	Degrees C			12/14/12 19:54	1
Percent Moisture	9.3		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-45**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-46**
Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.10		0.100	0.100	SU			12/14/12 19:55	1
Temperature	20.5		1.00	1.00	Degrees C			12/14/12 19:55	1
Percent Moisture	15		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-47**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		0.10	0.10	%			12/17/12 10:52	1

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-48**
Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.33		0.100	0.100	SU			12/14/12 19:56	1
Temperature	20.4		1.00	1.00	Degrees C			12/14/12 19:56	1
Percent Moisture	7.3		0.10	0.10	%			12/14/12 09:41	1

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-49**
Date Collected: 12/07/12 07:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/14/12 09:22	1

General Chemistry

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — **Lab Sample ID: 280-36846-50**
Date Collected: 12/07/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — **Lab Sample ID: 280-36846-51**
Date Collected: 12/07/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-52**
Date Collected: 12/07/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.2		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-53**
Date Collected: 12/07/12 10:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.5		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-545-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36846-54**
Date Collected: 12/07/12 10:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.0		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-547-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36846-55**
Date Collected: 12/07/12 12:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.5		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-547-SA6-SB-4.0-5.0 — **Lab Sample ID: 280-36846-56**
Date Collected: 12/07/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.10	0.10	%			12/14/12 09:22	1

Client Sample ID: SL-547-SA6-SB-9.0-10.0 — **Lab Sample ID: 280-36846-57**
Date Collected: 12/07/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10	0.10	%			12/14/12 09:22	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-151884/1-A
Matrix: Solid
Analysis Batch: 152615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		9.4	0.24	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
2-Methylnaphthalene	ND		9.4	0.29	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Acenaphthene	ND		9.4	0.15	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Acenaphthylene	ND		9.4	0.16	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Anthracene	ND		9.4	0.68	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Benzo[a]anthracene	ND		9.4	0.85	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Benzo[a]pyrene	ND		9.4	0.70	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Benzo[b]fluoranthene	ND		9.4	1.1	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Benzo[g,h,i]perylene	ND		9.4	1.0	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Benzo[k]fluoranthene	ND		9.4	0.94	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Chrysene	ND		9.4	0.94	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Dibenz(a,h)anthracene	ND		9.4	1.2	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Fluoranthene	ND		9.4	0.94	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Fluorene	ND		9.4	0.44	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Indeno[1,2,3-cd]pyrene	ND		9.4	1.0	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Naphthalene	ND		9.4	0.31	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
N-Nitrosodimethylamine	ND		9.4	2.3	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Phenanthrene	ND		9.4	1.0	ug/Kg		12/12/12 16:55	12/17/12 17:26	1
Pyrene	ND		9.4	1.0	ug/Kg		12/12/12 16:55	12/17/12 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*45 - 130*	*12/12/12 16:55*	*12/17/12 17:26*	*1*
Nitrobenzene-d5	*81*		*40 - 130*	*12/12/12 16:55*	*12/17/12 17:26*	*1*
Terphenyl-d14	*102*		*45 - 130*	*12/12/12 16:55*	*12/17/12 17:26*	*1*

Lab Sample ID: LCS 280-151884/2-A
Matrix: Solid
Analysis Batch: 152451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	27.4	24.9		ug/Kg		91	50 - 150
2-Methylnaphthalene	27.4	24.1		ug/Kg		88	30 - 120
Acenaphthene	27.4	24.4		ug/Kg		89	35 - 120
Acenaphthylene	27.4	23.5		ug/Kg		86	41 - 120
Anthracene	27.4	23.1		ug/Kg		84	43 - 120
Benzo[a]anthracene	27.4	23.9		ug/Kg		87	36 - 120
Benzo[a]pyrene	27.4	23.9		ug/Kg		87	20 - 120
Benzo[b]fluoranthene	27.4	23.9		ug/Kg		87	37 - 120
Benzo[g,h,i]perylene	27.4	25.3		ug/Kg		92	20 - 123
Benzo[k]fluoranthene	27.4	24.6		ug/Kg		90	46 - 120
Chrysene	27.4	25.8		ug/Kg		94	34 - 120
Dibenz(a,h)anthracene	27.4	23.5		ug/Kg		86	20 - 120
Fluoranthene	27.4	24.6		ug/Kg		90	45 - 120
Fluorene	27.4	23.9		ug/Kg		87	44 - 120
Indeno[1,2,3-cd]pyrene	27.4	22.1		ug/Kg		81	20 - 127
Naphthalene	27.4	24.2		ug/Kg		88	44 - 120
Phenanthrene	27.4	24.4		ug/Kg		89	44 - 120
Pyrene	27.4	25.9		ug/Kg		94	43 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-151884/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152451 — **Prep Batch: 151884**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		45 - 130
Nitrobenzene-d5	82		40 - 130
Terphenyl-d14	97		45 - 130

Lab Sample ID: 280-36846-2 MS — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152451 — **Prep Batch: 151884**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	3.5	J	31.4	26.9	J D	ug/Kg	☼	75	50 - 150
2-Methylnaphthalene	5.0	J	31.4	27.7	J D	ug/Kg	☼	73	30 - 120
Acenaphthene	6.0	J	31.4	42.1	J D	ug/Kg	☼	115	35 - 120
Acenaphthylene	6.1	J	31.4	29.2	J D	ug/Kg	☼	74	41 - 120
Anthracene	26	J	31.4	86.9	J D	ug/Kg	☼	193	43 - 120
Benzo[a]anthracene	200		31.4	366	D 4	ug/Kg	☼	531	36 - 120
Benzo[a]pyrene	170		31.4	301	D 4	ug/Kg	☼	420	20 - 120
Benzo[b]fluoranthene	230		31.4	388	D 4	ug/Kg	☼	500	37 - 120
Benzo[g,h,i]perylene	87	J	31.4	154	D	ug/Kg	☼	215	20 - 123
Benzo[k]fluoranthene	86	J	31.4	170	D	ug/Kg	☼	267	46 - 120
Chrysene	290		31.4	487	D 4	ug/Kg	☼	626	34 - 120
Dibenz(a,h)anthracene	22	J	31.4	59.2	J D	ug/Kg	☼	119	20 - 120
Fluoranthene	370		31.4	645	D 4	ug/Kg	☼	870	45 - 120
Fluorene	7.3	J	31.4	35.1	J D	ug/Kg	☼	89	44 - 120
Indeno[1,2,3-cd]pyrene	96	J	31.4	174	D	ug/Kg	☼	249	20 - 127
Naphthalene	6.5	J	31.4	27.9	J D	ug/Kg	☼	68	44 - 120
Phenanthrene	140		31.4	333	D 4	ug/Kg	☼	602	44 - 120
Pyrene	400		31.4	698	D 4	ug/Kg	☼	952	43 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	74	D	45 - 130
Nitrobenzene-d5	99	D	40 - 130
Terphenyl-d14	87	D	45 - 130

Lab Sample ID: 280-36846-2 MSD — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152451 — **Prep Batch: 151884**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	3.5	J	32.0	28.8	J D	ug/Kg	☼	79	50 - 150	7	50
2-Methylnaphthalene	5.0	J	32.0	29.0	J D	ug/Kg	☼	75	30 - 120	5	30
Acenaphthene	6.0	J	32.0	30.9	J D	ug/Kg	☼	78	35 - 120	31	50
Acenaphthylene	6.1	J	32.0	30.3	J D	ug/Kg	☼	76	41 - 120	4	50
Anthracene	26	J	32.0	44.4	J D	ug/Kg	☼	57	43 - 120	65	50
Benzo[a]anthracene	200		32.0	177	D 4	ug/Kg	☼	-71	36 - 120	70	40
Benzo[a]pyrene	170		32.0	154	D 4	ug/Kg	☼	-47	20 - 120	64	30
Benzo[b]fluoranthene	230		32.0	209	D 4	ug/Kg	☼	-71	37 - 120	60	28
Benzo[g,h,i]perylene	87	J	32.0	92.7	J D	ug/Kg	☼	19	20 - 123	50	30
Benzo[k]fluoranthene	86	J	32.0	103	J D	ug/Kg	☼	53	46 - 120	49	28

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-36846-2 MSD — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152451 — **Prep Batch: 151884**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	290		32.0	244	D 4	ug/Kg	☼	-144	34 - 120	66	41
Dibenz(a,h)anthracene	22	J	32.0	38.1	J D	ug/Kg	☼	51	20 - 120	43	25
Fluoranthene	370		32.0	277	D 4	ug/Kg	☼	-294	45 - 120	80	30
Fluorene	7.3	J	32.0	29.6	J D	ug/Kg	☼	70	44 - 120	17	50
Indeno[1,2,3-cd]pyrene	96	J	32.0	104	J D	ug/Kg	☼	24	20 - 127	51	50
Naphthalene	6.5	J	32.0	30.2	J D	ug/Kg	☼	74	44 - 120	8	50
Phenanthrene	140		32.0	114	D 4	ug/Kg	☼	-95	44 - 120	98	42
Pyrene	400		32.0	301	D 4	ug/Kg	☼	-309	43 - 120	80	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*78*	*D*	*45 - 130*
Nitrobenzene-d5	*103*	*D*	*40 - 130*
Terphenyl-d14	*87*	*D*	*45 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-151823/3-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151895 — **Prep Batch: 151823**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	0.408	J	0.98	0.32	mg/Kg		12/12/12 12:35	12/12/12 18:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*112*		*77 - 123*	*12/12/12 12:35*	*12/12/12 18:46*	*1*

Lab Sample ID: LCS 280-151823/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151895 — **Prep Batch: 151823**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	5.39	5.69		mg/Kg		106	85 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*116*		*77 - 123*

Lab Sample ID: LCSD 280-151823/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 151895 — **Prep Batch: 151823**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	5.40	5.97		mg/Kg		111	85 - 153	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*116*		*77 - 123*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 280-152283/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		25	10	ug/L			12/14/12 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*82 - 110*		*12/14/12 16:23*	*1*

Lab Sample ID: LCS 280-152283/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152283

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			101	121		ug/L		120	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*82 - 110*

Lab Sample ID: LCSD 280-152283/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152283

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			101	124		ug/L		123	79 - 149	3	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*107*		*82 - 110*

Lab Sample ID: 280-37016-F-6 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	30		101	132		ug/L		102	79 - 149		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*107*		*82 - 110*

Lab Sample ID: 280-37016-F-6 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 152283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	30		101	132		ug/L		102	79 - 149	0	27

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*82 - 110*

Method: 8015B - Diesel Range Organics

Lab Sample ID: MB 280-152022/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152999 — **Prep Batch: 152022**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C30-C40	ND		9.8	0.98	mg/Kg		12/13/12 14:30	12/14/12 16:23	1
EFH (C12-C14)	ND		4.9	0.98	mg/Kg		12/13/12 14:30	12/14/12 16:23	1
EFH (C15-C20)	ND		4.9	0.98	mg/Kg		12/13/12 14:30	12/14/12 16:23	1
EFH (C21-C30)	ND		4.9	0.98	mg/Kg		12/13/12 14:30	12/14/12 16:23	1
EFH (C8-C11)	ND		4.9	0.98	mg/Kg		12/13/12 14:30	12/14/12 16:23	1
Total Petroleum Hydrocarbons (C8-C40)	0.840	J	3.9	0.66	mg/Kg		12/13/12 14:30	12/14/12 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*49 - 115*	*12/13/12 14:30*	*12/14/12 16:23*	*1*

Lab Sample ID: LCS 280-152022/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152999 — **Prep Batch: 152022**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	33.0	33.3		mg/Kg		101	43 - 115
EFH (C15-C20)	49.5	48.7		mg/Kg		98	56 - 115
EFH (C21-C30)	66.0	63.7		mg/Kg		96	55 - 115
EFH (C8-C11)	16.5	14.9		mg/Kg		90	21 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*87*		*49 - 115*

Lab Sample ID: 280-36846-4 MS — **Client Sample ID: SL-557-SA6-SB-5.5-6.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152999 — **Prep Batch: 152022**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C12-C14)	ND		35.2	38.5		mg/Kg	☼	109	43 - 115
EFH (C15-C20)	ND		52.8	55.7		mg/Kg	☼	106	56 - 115
EFH (C21-C30)	ND		70.4	71.7		mg/Kg	☼	102	55 - 115
EFH (C8-C11)	ND		17.6	17.0		mg/Kg	☼	96	21 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*90*		*49 - 115*

Lab Sample ID: 280-36846-4 MSD — **Client Sample ID: SL-557-SA6-SB-5.5-6.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152999 — **Prep Batch: 152022**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C12-C14)	ND		34.2	33.6		mg/Kg	☼	98	43 - 115	13	30
EFH (C15-C20)	ND		51.3	53.1		mg/Kg	☼	104	56 - 115	5	30
EFH (C21-C30)	ND		68.4	66.5		mg/Kg	☼	97	55 - 115	7	30
EFH (C8-C11)	ND		17.1	14.4		mg/Kg	☼	84	21 - 125	17	30

Method: 8015B - Diesel Range Organics (Continued)

Lab Sample ID: 280-36846-4 MSD — **Client Sample ID: SL-557-SA6-SB-5.5-6.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152999 — **Prep Batch: 152022**

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	88		49 - 115

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-152076/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.0	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1221	ND		33	15	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1232	ND		17	5.1	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1242	ND		17	9.0	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1248	ND		17	5.6	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1254	ND		17	5.5	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1260	ND		17	2.6	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1262	ND		33	11	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 1268	ND		33	3.9	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 5432	ND		50	16	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 5442	ND		50	32	ug/Kg		12/13/12 15:50	12/17/12 15:19	1
Aroclor 5460	ND		50	16	ug/Kg		12/13/12 15:50	12/17/12 15:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		45 - 120	12/13/12 15:50	12/17/12 15:19	1
Tetrachloro-m-xylene	102		45 - 120	12/13/12 15:50	12/17/12 15:19	1

Lab Sample ID: LCS 280-152076/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	63.9	74.1		ug/Kg		116	54 - 132
Aroclor 1260	63.9	59.2		ug/Kg		93	62 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	81		45 - 120
Tetrachloro-m-xylene	100		45 - 120

Lab Sample ID: LCS 280-152076/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	64.3	53.4		ug/Kg		83	62 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		45 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 280-152076/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	97		45 - 120

Lab Sample ID: 280-36846-3 MS — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		75.0	95.7		ug/Kg	☼	128	54 - 132
Aroclor 1260	39		75.0	98.4		ug/Kg	☼	79	62 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	61		45 - 120
Tetrachloro-m-xylene	97		45 - 120

Lab Sample ID: 280-36846-3 MS — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	31	J	70.8	69.1	F	ug/Kg	☼	54	62 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	57		45 - 120
Tetrachloro-m-xylene	93		45 - 120

Lab Sample ID: 280-36846-3 MSD — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		74.3	88.5		ug/Kg	☼	119	54 - 132	8	36
Aroclor 1260	39		74.3	84.8		ug/Kg	☼	62	62 - 129	15	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	55		45 - 120
Tetrachloro-m-xylene	89		45 - 120

Lab Sample ID: 280-36846-3 MSD — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152076**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	31	J	71.3	109	F	ug/Kg	☼	109	62 - 129	44	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	60		45 - 120
Tetrachloro-m-xylene	100		45 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 280-152181/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		17	5.1	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1221	ND		33	16	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1232	ND		17	5.1	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1242	ND		17	9.1	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1248	ND		17	5.6	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1254	ND		17	5.5	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1260	ND		17	2.7	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1262	ND		33	12	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 1268	ND		33	4.0	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 5432	ND		50	16	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 5442	ND		50	32	ug/Kg		12/14/12 10:15	12/18/12 00:15	1
Aroclor 5460	ND		50	16	ug/Kg		12/14/12 10:15	12/18/12 00:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*12/14/12 10:15*	*12/18/12 00:15*	*1*
Tetrachloro-m-xylene	*110*		*45 - 120*	*12/14/12 10:15*	*12/18/12 00:15*	*1*

Lab Sample ID: LCS 280-152181/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	63.5	77.4		ug/Kg		122	54 - 132
Aroclor 1260	63.5	61.6		ug/Kg		97	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*84*		*45 - 120*
Tetrachloro-m-xylene	*110*		*45 - 120*

Lab Sample ID: LCS 280-152181/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 5460	66.4	64.8		ug/Kg		97	62 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*45 - 120*
Tetrachloro-m-xylene	*113*		*45 - 120*

Lab Sample ID: 280-36846-37 MS — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		66.4	59.3		ug/Kg	☼	89	54 - 132
Aroclor 1260	ND		66.4	52.2		ug/Kg	☼	79	62 - 129

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-36846-37 MS — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	62		45 - 120
Tetrachloro-m-xylene	79		45 - 120

Lab Sample ID: 280-36846-37 MS — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 5460	ND		69.5	37.6	J F	ug/Kg	☼	54	62 - 129		

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	62		45 - 120
Tetrachloro-m-xylene	79		45 - 120

Lab Sample ID: 280-36846-37 MSD — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		68.6	63.6		ug/Kg	☼	93	54 - 132	7	36
Aroclor 1260	ND		68.6	50.4		ug/Kg	☼	73	62 - 129	4	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	65		45 - 120
Tetrachloro-m-xylene	83		45 - 120

Lab Sample ID: 280-36846-37 MSD — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152491 — **Prep Batch: 152181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 5460	ND		69.3	37.2	J F	ug/Kg	☼	54	62 - 129	1	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	61		45 - 120
Tetrachloro-m-xylene	79		45 - 120

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-44390/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	697	J	1700	690	ug/Kg		12/17/12 14:13	12/19/12 23:45	1

Method: 8315A - Carbonyl Compounds by HPLC (Continued)

Lab Sample ID: LCS 490-44390/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	2000	2730		ug/Kg		137	44 - 150

Lab Sample ID: 280-36846-50 MS — **Client Sample ID: SL-542-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Formaldehyde	ND		2190	2630		ug/Kg	☼	120	21 - 153

Lab Sample ID: 280-36846-50 MSD — **Client Sample ID: SL-542-SA6-SB-3.0-4.0MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Formaldehyde	ND		2170	1920		ug/Kg	☼	88	21 - 153	31	39

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-151989/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152324 — **Prep Batch: 151989**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Boron	ND		9.7	0.98	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Calcium	ND		50	14	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Iron	ND		34	3.8	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Lithium	0.371	J ^	37	0.30	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Magnesium	ND		10	3.7	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Manganese	ND		500	0.10	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Phosphorus	ND		10	1.6	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Potassium	ND		6400	41	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Sodium	ND		500	59	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Strontium	ND		0.50	0.036	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Tin	ND		11	0.91	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Titanium	ND		1.0	0.14	mg/Kg		12/14/12 08:00	12/14/12 16:17	1
Zirconium	ND		8.6	0.35	mg/Kg		12/14/12 08:00	12/14/12 16:17	1

Lab Sample ID: LCS 280-151989/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152324 — **Prep Batch: 151989**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	183	J	mg/Kg		92	80 - 120
Boron	100	89.5		mg/Kg		89	80 - 120
Calcium	5000	4430		mg/Kg		89	80 - 120
Iron	100	89.7		mg/Kg		90	80 - 120
Lithium	100	97.0	^	mg/Kg		97	80 - 120
Magnesium	5000	4730		mg/Kg		95	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-151989/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152324 — **Prep Batch: 151989**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	50.0	45.6	J	mg/Kg		91	80 - 120
Phosphorus	1000	977		mg/Kg		98	80 - 120
Potassium	5000	4670	J	mg/Kg		93	80 - 120
Sodium	5000	4580		mg/Kg		92	80 - 120
Strontium	100	96.0		mg/Kg		96	80 - 120
Tin	200	189		mg/Kg		95	80 - 120
Titanium	100	95.9		mg/Kg		96	80 - 120
Zirconium	50.0	43.7		mg/Kg		87	80 - 120

Lab Sample ID: 280-36846-35 MS — **Client Sample ID: SL-601-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152324 — **Prep Batch: 151989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	13000	J	198	16200	J 4	mg/Kg	☼	1613	75 - 125
Boron	ND		99.0	82.7		mg/Kg	☼	84	75 - 125
Calcium	2300		4950	6590		mg/Kg	☼	87	75 - 125
Iron	19000		99.0	17800	4	mg/Kg	☼	-1299	75 - 125
Lithium	19	J B ^	99.0	114	^	mg/Kg	☼	96	75 - 125
Magnesium	4100		4950	8670		mg/Kg	☼	92	75 - 125
Manganese	350	J	49.5	356	J 4	mg/Kg	☼	5	75 - 125
Phosphorus	480		990	1310		mg/Kg	☼	84	75 - 125
Potassium	3900	J	4950	8390		mg/Kg	☼	91	75 - 125
Sodium	74	J	4950	4510		mg/Kg	☼	90	75 - 125
Strontium	21		99.0	114		mg/Kg	☼	94	75 - 125
Tin	1.3	J	198	172		mg/Kg	☼	86	75 - 125
Titanium	860		99.0	1050	4	mg/Kg	☼	187	75 - 125
Zirconium	1.5	J	49.5	39.4		mg/Kg	☼	77	75 - 125

Lab Sample ID: 280-36846-35 MSD — **Client Sample ID: SL-601-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152324 — **Prep Batch: 151989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	13000	J	188	15800	J 4	mg/Kg	☼	1472	75 - 125	3	20
Boron	ND		93.8	78.7		mg/Kg	☼	84	75 - 125	5	20
Calcium	2300		4690	6400		mg/Kg	☼	87	75 - 125	3	20
Iron	19000		93.8	17000	4	mg/Kg	☼	-2201	75 - 125	4	20
Lithium	19	J B ^	93.8	107	^	mg/Kg	☼	94	75 - 125	6	20
Magnesium	4100		4690	8320		mg/Kg	☼	89	75 - 125	4	20
Manganese	350	J	46.9	340	J 4	mg/Kg	☼	-28	75 - 125	5	20
Phosphorus	480		938	1260		mg/Kg	☼	83	75 - 125	4	20
Potassium	3900	J	4690	8010		mg/Kg	☼	88	75 - 125	5	20
Sodium	74	J	4690	4220		mg/Kg	☼	88	75 - 125	7	20
Strontium	21		93.8	109		mg/Kg	☼	94	75 - 125	5	20
Tin	1.3	J	188	163		mg/Kg	☼	86	75 - 125	5	20
Titanium	860		93.8	1020	4	mg/Kg	☼	169	75 - 125	3	20
Zirconium	1.5	J	46.9	36.6		mg/Kg	☼	75	75 - 125	7	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 280-152226/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152658 — **Prep Batch: 152226**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20000	1.6	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Boron	ND		9.7	0.98	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Calcium	ND		50	14	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Iron	29.9	J	34	3.8	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Lithium	ND		37	0.30	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Magnesium	ND		10	3.7	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Manganese	0.239	J	500	0.10	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Phosphorus	ND		10	1.6	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Potassium	ND		6400	41	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Sodium	ND	^	500	59	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Strontium	ND		0.50	0.036	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Tin	ND		11	0.91	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Titanium	ND		1.0	0.14	mg/Kg		12/17/12 08:00	12/17/12 17:14	1
Zirconium	ND		8.6	0.35	mg/Kg		12/17/12 08:00	12/17/12 17:14	1

Lab Sample ID: LCS 280-152226/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152658 — **Prep Batch: 152226**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	201	J	mg/Kg		100	80 - 120
Boron	100	100		mg/Kg		100	80 - 120
Calcium	5000	5010		mg/Kg		100	80 - 120
Iron	100	103		mg/Kg		103	80 - 120
Lithium	100	104		mg/Kg		104	80 - 120
Magnesium	5000	5040		mg/Kg		101	80 - 120
Manganese	50.0	49.9	J	mg/Kg		100	80 - 120
Phosphorus	1000	1050		mg/Kg		105	80 - 120
Potassium	5000	5150	J	mg/Kg		103	80 - 120
Sodium	5000	4890		mg/Kg		98	80 - 120
Strontium	100	102		mg/Kg		102	80 - 120
Tin	200	203		mg/Kg		101	80 - 120
Titanium	100	102		mg/Kg		102	80 - 120
Zirconium	50.0	49.3		mg/Kg		99	80 - 120

Lab Sample ID: 280-36846-48 MS — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152658 — **Prep Batch: 152226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	14000	J	210	19700	J 4	mg/Kg	☼	2757	75 - 125
Boron	1.6	J	105	98.1		mg/Kg	☼	92	75 - 125
Calcium	2100		5240	7660		mg/Kg	☼	106	75 - 125
Iron	17000	B	105	19800	4	mg/Kg	☼	2262	75 - 125
Lithium	20	J	105	131		mg/Kg	☼	106	75 - 125
Magnesium	4100		5240	9870		mg/Kg	☼	111	75 - 125
Manganese	300	J B	52.4	381	J 4	mg/Kg	☼	148	75 - 125
Phosphorus	360		1050	1410		mg/Kg	☼	100	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-36846-48 MS — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152658 — **Prep Batch: 152226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	3200	J	5240	9010		mg/Kg	☼	112	75 - 125
Sodium	110	J ^	5240	5070		mg/Kg	☼	95	75 - 125
Strontium	30		105	126		mg/Kg	☼	92	75 - 125
Tin	1.4	J	210	194		mg/Kg	☼	92	75 - 125
Titanium	880		105	1180	4	mg/Kg	☼	281	75 - 125
Zirconium	1.8	J	52.4	50.8		mg/Kg	☼	94	75 - 125

Lab Sample ID: 280-36846-48 MSD — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152658 — **Prep Batch: 152226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	14000	J	198	19100	J 4	mg/Kg	☼	2643	75 - 125	3	20
Boron	1.6	J	99.0	90.6		mg/Kg	☼	90	75 - 125	8	20
Calcium	2100		4950	6910		mg/Kg	☼	97	75 - 125	10	20
Iron	17000	B	99.0	18800	4	mg/Kg	☼	1392	75 - 125	5	20
Lithium	20	J	99.0	122		mg/Kg	☼	103	75 - 125	7	20
Magnesium	4100		4950	9180		mg/Kg	☼	103	75 - 125	7	20
Manganese	300	J B	49.5	382	J 4	mg/Kg	☼	157	75 - 125	0	20
Phosphorus	360		990	1320		mg/Kg	☼	97	75 - 125	7	20
Potassium	3200	J	4950	8350		mg/Kg	☼	105	75 - 125	8	20
Sodium	110	J ^	4950	4730		mg/Kg	☼	93	75 - 125	7	20
Strontium	30		99.0	117		mg/Kg	☼	88	75 - 125	7	20
Tin	1.4	J	198	179		mg/Kg	☼	89	75 - 125	8	20
Titanium	880		99.0	1100	4	mg/Kg	☼	219	75 - 125	7	20
Zirconium	1.8	J	49.5	46.9		mg/Kg	☼	91	75 - 125	8	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-151990/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151990**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Arsenic	ND		15	0.051	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Barium	ND		140	0.071	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Beryllium	ND		1.1	0.023	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Chromium	ND		37	0.076	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Cobalt	ND		21	0.0066	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Copper	ND		29	0.071	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Lead	ND		34	0.018	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Nickel	ND		29	0.025	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Selenium	ND		0.66	0.13	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Silver	ND		0.79	0.020	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Thallium	0.00483	J	0.46	0.0035	mg/Kg		12/14/12 08:00	12/14/12 17:06	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-151990/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151990**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		62	0.039	mg/Kg		12/14/12 08:00	12/14/12 17:06	1
Zinc	ND		110	0.32	mg/Kg		12/14/12 08:00	12/14/12 17:06	1

Lab Sample ID: LCS 280-151990/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151990**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	18.0		mg/Kg		90	80 - 120
Arsenic	20.0	18.4		mg/Kg		92	80 - 120
Barium	20.0	18.7	J	mg/Kg		93	80 - 120
Beryllium	20.0	17.6		mg/Kg		88	80 - 120
Cadmium	20.0	18.4		mg/Kg		92	80 - 120
Chromium	20.0	18.9	J	mg/Kg		94	80 - 120
Cobalt	20.0	19.0	J	mg/Kg		95	80 - 120
Copper	20.0	19.9	J	mg/Kg		99	80 - 120
Lead	20.0	19.3	J	mg/Kg		97	80 - 120
Molybdenum	20.0	17.9		mg/Kg		90	80 - 120
Nickel	20.0	19.9	J	mg/Kg		99	80 - 120
Selenium	20.0	18.1		mg/Kg		90	80 - 120
Silver	20.0	19.2		mg/Kg		96	80 - 120
Thallium	20.0	19.6		mg/Kg		98	80 - 120
Vanadium	20.0	18.3	J	mg/Kg		92	80 - 120
Zinc	20.0	18.7	J	mg/Kg		94	80 - 120

Lab Sample ID: 280-36846-32 MS — **Client Sample ID: SL-598-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151990**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		19.5	1.43	J F	mg/Kg	☼	7	75 - 125
Arsenic	4.1	J	19.5	21.6		mg/Kg	☼	90	75 - 125
Barium	93	J	19.5	110	J 4	mg/Kg	☼	85	75 - 125
Beryllium	0.64	J	19.5	19.1		mg/Kg	☼	95	75 - 125
Cadmium	0.17	J	19.5	18.4		mg/Kg	☼	94	75 - 125
Chromium	20	J	19.5	39.5		mg/Kg	☼	100	75 - 125
Cobalt	6.0	J	19.5	24.4		mg/Kg	☼	94	75 - 125
Copper	8.7	J	19.5	26.9	J	mg/Kg	☼	93	75 - 125
Lead	5.8	J	19.5	24.1	J	mg/Kg	☼	94	75 - 125
Molybdenum	0.41	J	19.5	15.9		mg/Kg	☼	79	75 - 125
Nickel	13	J	19.5	31.7		mg/Kg	☼	96	75 - 125
Selenium	0.80		19.5	18.1		mg/Kg	☼	89	75 - 125
Silver	0.060	J	19.5	17.4		mg/Kg	☼	89	75 - 125
Thallium	0.26	J B	19.5	19.5		mg/Kg	☼	99	75 - 125
Vanadium	38	J	19.5	56.4	J	mg/Kg	☼	95	75 - 125
Zinc	51	J	19.5	69.2	J	mg/Kg	☼	92	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36846-32 MSD — **Client Sample ID: SL-598-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152510 — **Prep Batch: 151990**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		17.5	1.13	J F	mg/Kg	☼	6	75 - 125	24	20
Arsenic	4.1	J	17.5	21.3		mg/Kg	☼	98	75 - 125	1	20
Barium	93	J	17.5	114	J 4	mg/Kg	☼	121	75 - 125	4	20
Beryllium	0.64	J	17.5	18.4		mg/Kg	☼	101	75 - 125	4	20
Cadmium	0.17	J	17.5	17.6		mg/Kg	☼	99	75 - 125	5	20
Chromium	20	J	17.5	40.0		mg/Kg	☼	114	75 - 125	1	20
Cobalt	6.0	J	17.5	24.6		mg/Kg	☼	106	75 - 125	1	20
Copper	8.7	J	17.5	26.6		mg/Kg	☼	102	75 - 125	1	20
Lead	5.8	J	17.5	24.2	J	mg/Kg	☼	105	75 - 125	1	20
Molybdenum	0.41	J	17.5	15.0		mg/Kg	☼	83	75 - 125	5	20
Nickel	13	J	17.5	31.6		mg/Kg	☼	106	75 - 125	0	20
Selenium	0.80		17.5	17.1		mg/Kg	☼	93	75 - 125	5	20
Silver	0.060	J	17.5	16.3		mg/Kg	☼	93	75 - 125	6	20
Thallium	0.26	J B	17.5	18.7		mg/Kg	☼	105	75 - 125	4	20
Vanadium	38	J	17.5	59.9	F	mg/Kg	☼	126	75 - 125	6	20
Zinc	51	J	17.5	70.5	J	mg/Kg	☼	110	75 - 125	2	20

Lab Sample ID: MB 280-152228/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		8.7	0.014	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Arsenic	ND		15	0.051	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Barium	ND		140	0.071	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Beryllium	ND		1.1	0.023	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Cadmium	ND		1.0	0.0094	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Chromium	ND		37	0.076	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Cobalt	ND		21	0.0066	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Copper	ND		29	0.071	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Lead	ND		34	0.018	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Molybdenum	ND		5.3	0.018	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Nickel	ND		29	0.025	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Selenium	0.134	J	0.66	0.13	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Silver	ND		0.79	0.020	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Thallium	ND		0.46	0.0035	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Vanadium	ND		62	0.039	mg/Kg		12/17/12 08:00	12/17/12 21:48	1
Zinc	ND		110	0.32	mg/Kg		12/17/12 08:00	12/17/12 21:48	1

Lab Sample ID: LCS 280-152228/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.8		mg/Kg		99	80 - 120
Arsenic	20.0	20.0		mg/Kg		100	80 - 120
Barium	20.0	20.1	J	mg/Kg		101	80 - 120
Beryllium	20.0	20.2		mg/Kg		101	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-152228/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	20.0	19.4		mg/Kg		97	80 - 120
Chromium	20.0	20.1	J	mg/Kg		101	80 - 120
Cobalt	20.0	20.5	J	mg/Kg		103	80 - 120
Copper	20.0	21.1	J	mg/Kg		106	80 - 120
Lead	20.0	21.0	J	mg/Kg		105	80 - 120
Molybdenum	20.0	19.4		mg/Kg		97	80 - 120
Nickel	20.0	21.1	J	mg/Kg		105	80 - 120
Selenium	20.0	20.3		mg/Kg		101	80 - 120
Silver	20.0	20.7		mg/Kg		104	80 - 120
Thallium	20.0	21.6		mg/Kg		108	80 - 120
Vanadium	20.0	19.7	J	mg/Kg		98	80 - 120
Zinc	20.0	20.2	J	mg/Kg		101	80 - 120

Lab Sample ID: 280-36846-48 MS — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.021	J	20.2	1.34	J F	mg/Kg	☼	7	75 - 125
Arsenic	3.5	J	20.2	22.4		mg/Kg	☼	94	75 - 125
Barium	100	J	20.2	120	J 4	mg/Kg	☼	101	75 - 125
Beryllium	0.52	J	20.2	20.8		mg/Kg	☼	100	75 - 125
Cadmium	0.28	J	20.2	20.4		mg/Kg	☼	100	75 - 125
Chromium	18	J	20.2	37.9		mg/Kg	☼	99	75 - 125
Cobalt	5.8	J	20.2	26.2		mg/Kg	☼	101	75 - 125
Copper	9.1	J	20.2	27.9	J	mg/Kg	☼	94	75 - 125
Lead	9.6	J	20.2	28.8	J	mg/Kg	☼	95	75 - 125
Molybdenum	0.46	J	20.2	17.4		mg/Kg	☼	84	75 - 125
Nickel	12	J	20.2	32.1		mg/Kg	☼	98	75 - 125
Selenium	0.92	B	20.2	19.8		mg/Kg	☼	93	75 - 125
Silver	0.071	J	20.2	19.2		mg/Kg	☼	95	75 - 125
Thallium	0.25	J	20.2	21.1		mg/Kg	☼	103	75 - 125
Vanadium	32	J	20.2	51.9	J	mg/Kg	☼	99	75 - 125
Zinc	58	J	20.2	76.9	J	mg/Kg	☼	92	75 - 125

Lab Sample ID: 280-36846-48 MSD — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.021	J	21.6	1.50	J F	mg/Kg	☼	7	75 - 125	11	20
Arsenic	3.5	J	21.6	24.0		mg/Kg	☼	95	75 - 125	7	20
Barium	100	J	21.6	122	J 4	mg/Kg	☼	102	75 - 125	1	20
Beryllium	0.52	J	21.6	22.2		mg/Kg	☼	100	75 - 125	6	20
Cadmium	0.28	J	21.6	21.7		mg/Kg	☼	99	75 - 125	6	20
Chromium	18	J	21.6	38.7	J	mg/Kg	☼	95	75 - 125	2	20
Cobalt	5.8	J	21.6	27.3		mg/Kg	☼	99	75 - 125	4	20
Copper	9.1	J	21.6	30.0	J	mg/Kg	☼	97	75 - 125	7	20
Lead	9.6	J	21.6	30.5	J	mg/Kg	☼	97	75 - 125	6	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-36846-48 MSD — **Client Sample ID: SL-684-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152719 — **Prep Batch: 152228**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	0.46	J	21.6	18.4		mg/Kg	☼	83	75 - 125	6	20
Nickel	12	J	21.6	33.9		mg/Kg	☼	100	75 - 125	6	20
Selenium	0.92	B	21.6	21.3		mg/Kg	☼	94	75 - 125	7	20
Silver	0.071	J	21.6	20.7		mg/Kg	☼	96	75 - 125	8	20
Thallium	0.25	J	21.6	22.6		mg/Kg	☼	103	75 - 125	7	20
Vanadium	32	J	21.6	52.7	J	mg/Kg	☼	96	75 - 125	1	20
Zinc	58	J	21.6	77.5	J	mg/Kg	☼	89	75 - 125	1	20

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 280-152006/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152272 — **Prep Batch: 152006**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/13/12 11:30	12/13/12 16:32	1

Lab Sample ID: LCS 280-152006/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152272 — **Prep Batch: 152006**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.417	0.408		mg/Kg		98	85 - 120

Lab Sample ID: 280-36846-3 MS — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152272 — **Prep Batch: 152006**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.028		0.548	0.574		mg/Kg	☼	100	65 - 135

Lab Sample ID: 280-36846-3 MSD — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152272 — **Prep Batch: 152006**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.028		0.548	0.586		mg/Kg	☼	102	65 - 135	2	20

Lab Sample ID: MB 280-152445/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152990 — **Prep Batch: 152445**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0055	mg/Kg		12/18/12 12:10	12/18/12 14:21	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique) (Continued)

Lab Sample ID: LCS 280-152445/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152990 — **Prep Batch: 152445**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.417	0.455		mg/Kg		109	85 - 120

Lab Sample ID: 280-36846-37 MS — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152990 — **Prep Batch: 152445**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.010	J	0.443	0.487		mg/Kg	☼	108	65 - 135

Lab Sample ID: 280-36846-37 MSD — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152990 — **Prep Batch: 152445**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.010	J	0.451	0.478		mg/Kg	☼	104	65 - 135	2	20

Method: 9045D - pH

Lab Sample ID: LCS 280-152353/25 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152353

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH adj. to 25 deg C	7.00	7.010		SU		100	95 - 105

Lab Sample ID: LCSD 280-152353/26 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152353

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C	7.00	7.010		SU		100	95 - 105	0	5

Lab Sample ID: 280-36846-3 DU — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152353

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH adj. to 25 deg C	7.46		7.460		SU		0	5
Temperature	20.4		20.40		Degrees C		0	5

Lab Sample ID: 280-36846-37 DU — **Client Sample ID: SL-601-SA6-SB-4.0-5.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152353

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH adj. to 25 deg C	7.08		7.080		SU		0	5
Temperature	20.0		20.10		Degrees C		0.5	5

Method: 9045D - pH (Continued)

Lab Sample ID: LCS 280-152647/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152647

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH adj. to 25 deg C			7.00	6.990		SU		100	95 - 105		

Lab Sample ID: LCSD 280-152647/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152647

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH adj. to 25 deg C			7.00	6.990		SU		100	95 - 105	0	5

Lab Sample ID: 280-36846-5 DU — **Client Sample ID: SL-557-SA6-SB-5.5-6.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152647

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.61			7.630		SU				0.3	5
Temperature	20.9			20.90		Degrees C				0	5

Method: Moisture - Percent Moisture

Lab Sample ID: 280-36846-3 DU — **Client Sample ID: SL-557-SA6-SB-0.0-0.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152183

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	12			12		%				1	20

Lab Sample ID: 280-36846-51 DU — **Client Sample ID: SL-942-SA6-SB-3.0-4.0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 152183

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	11			11		%				0.7	20

GC/MS Semi VOA

Prep Batch: 151884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-2 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-2 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3546	
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	3546	
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3546	
LCS 280-151884/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-151884/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 152451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-2 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-2 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	8270C SIM	151884
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151884
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	8270C SIM	151884
LCS 280-151884/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	151884

Analysis Batch: 152615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151884
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151884
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8270C SIM	151884
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
MB 280-151884/1-A	Method Blank	Total/NA	Solid	8270C SIM	151884

Analysis Batch: 152839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884

GC/MS Semi VOA (Continued)

Analysis Batch: 152839 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	8270C SIM	151884

Analysis Batch: 153370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	None	
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	None	
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	None	
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	None	
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	None	

GC VOA

Prep Batch: 151823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-6	SL-557-SA6-SB-6.0	Total/NA	Solid	5035	
280-36846-11	SL-603-SA6-SB-4.5	Total/NA	Solid	5035	
280-36846-16	SL-604-SA6-SB-4.0	Total/NA	Solid	5035	
280-36846-28	SL-596-SA6-SB-4.5	Total/NA	Solid	5035	
280-36846-33	SL-598-SA6-SB-4.5	Total/NA	Solid	5035	
280-36846-38	SL-601-SA6-SB-4.5	Total/NA	Solid	5035	
LCS 280-151823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-151823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 280-151823/3-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 151895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-6	SL-557-SA6-SB-6.0	Total/NA	Solid	8015B	151823
280-36846-11	SL-603-SA6-SB-4.5	Total/NA	Solid	8015B	151823
280-36846-16	SL-604-SA6-SB-4.0	Total/NA	Solid	8015B	151823
280-36846-28	SL-596-SA6-SB-4.5	Total/NA	Solid	8015B	151823
280-36846-33	SL-598-SA6-SB-4.5	Total/NA	Solid	8015B	151823
280-36846-38	SL-601-SA6-SB-4.5	Total/NA	Solid	8015B	151823
LCS 280-151823/1-A	Lab Control Sample	Total/NA	Solid	8015B	151823

GC VOA (Continued)

Analysis Batch: 151895 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-151823/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	151823
MB 280-151823/3-A	Method Blank	Total/NA	Solid	8015B	151823

Analysis Batch: 152283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-1	TB-121012	Total/NA	Water	8015B	
280-37016-F-6 MS	Matrix Spike	Total/NA	Water	8015B	
280-37016-F-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
LCS 280-152283/4	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-152283/5	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-152283/6	Method Blank	Total/NA	Water	8015B	

GC Semi VOA

Leach Batch: 151863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	Increment, Prep	
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	Increment, Prep	
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

Prep Batch: 152022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3550C	
280-36846-4 MS	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3550C	
280-36846-4 MSD	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3550C	
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 152022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	3550C	
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3550C	
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3550C	
LCS 280-152022/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 280-152022/1-A	Method Blank	Total/NA	Solid	3550C	

Prep Batch: 152076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3546	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	3546	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Total/NA	Solid	3546	151863
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
LCS 280-152076/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-152076/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-152076/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 152181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863

GC Semi VOA (Continued)

Prep Batch: 152181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3546	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3546	151863
LCS 280-152181/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-152181/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-152181/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 152491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	8082A	152076
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152076
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	8082A	152076
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Total/NA	Solid	8082A	152076
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152076
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152076
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152181
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152181
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152181
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152181
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8082A	152181
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152181
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152181
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152181
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152181
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152181
LCS 280-152076/2-A	Lab Control Sample	Total/NA	Solid	8082A	152076
LCS 280-152076/3-A	Lab Control Sample	Total/NA	Solid	8082A	152076
LCS 280-152181/2-A	Lab Control Sample	Total/NA	Solid	8082A	152181
LCS 280-152181/3-A	Lab Control Sample	Total/NA	Solid	8082A	152181
MB 280-152076/1-A	Method Blank	Total/NA	Solid	8082A	152076
MB 280-152181/1-A	Method Blank	Total/NA	Solid	8082A	152181

Analysis Batch: 152999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022

GC Semi VOA (Continued)

Analysis Batch: 152999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	8015B	152022
280-36846-4 MS	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	8015B	152022
280-36846-4 MSD	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	8015B	152022
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	8015B	152022
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	152022
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	152022
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	152022
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
LCS 280-152022/2-A	Lab Control Sample	Total/NA	Solid	8015B	152022
MB 280-152022/1-A	Method Blank	Total/NA	Solid	8015B	152022

Analysis Batch: 153000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	8015B	152022
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	8015B	152022

Analysis Batch: 153330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	8082A	152076

HPLC/IC

Prep Batch: 44390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-49	SL-542-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36846-50	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A Prep	
280-36846-50 MS	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A Prep	
280-36846-50 MSD	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A Prep	
280-36846-51	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	8315A Prep	
280-36846-52	SL-545-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36846-53	SL-545-SA6-SB-4.0-5.0	Total/NA	Solid	8315A Prep	
280-36846-54	SL-545-SA6-SB-9.0-10.0	Total/NA	Solid	8315A Prep	
280-36846-55	SL-547-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
280-36846-56	SL-547-SA6-SB-4.0-5.0	Total/NA	Solid	8315A Prep	
280-36846-57	SL-547-SA6-SB-9.0-10.0	Total/NA	Solid	8315A Prep	
LCS 490-44390/2-A	Lab Control Sample	Total/NA	Solid	8315A Prep	
MB 490-44390/1-A	Method Blank	Total/NA	Solid	8315A Prep	

HPLC/IC (Continued)

Analysis Batch: 45245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-49	SL-542-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	44390
280-36846-50	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A	44390
280-36846-50 MS	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A	44390
280-36846-50 MSD	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	8315A	44390
280-36846-51	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	8315A	44390
280-36846-52	SL-545-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	44390
280-36846-53	SL-545-SA6-SB-4.0-5.0	Total/NA	Solid	8315A	44390
280-36846-54	SL-545-SA6-SB-9.0-10.0	Total/NA	Solid	8315A	44390
280-36846-55	SL-547-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	44390
280-36846-56	SL-547-SA6-SB-4.0-5.0	Total/NA	Solid	8315A	44390
280-36846-57	SL-547-SA6-SB-9.0-10.0	Total/NA	Solid	8315A	44390
LCS 490-44390/2-A	Lab Control Sample	Total/NA	Solid	8315A	44390
MB 490-44390/1-A	Method Blank	Total/NA	Solid	8315A	44390

Metals

Leach Batch: 151863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	Increment, Prep	
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	Increment, Prep	
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-32 MS	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-32 MSD	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-35 MS	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-35 MSD	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-48 MS	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-48 MSD	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

Metals (Continued)

Prep Batch: 151989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3050B	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	3050B	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-35 MS	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-35 MSD	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
LCS 280-151989/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-151989/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 151990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	3050B	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	3050B	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-32 MS	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-32 MSD	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
LCS 280-151990/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-151990/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 152006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	7471B	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	7471B	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863

Metals (Continued)

Prep Batch: 152006 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
LCS 280-152006/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-152006/1-A	Method Blank	Total/NA	Solid	7471B	

Prep Batch: 152226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48 MS	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48 MSD	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
LCS 280-152226/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-152226/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 152228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	3050B	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48 MS	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
280-36846-48 MSD	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	3050B	151863
LCS 280-152228/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-152228/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 152272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-3 MS	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-3 MSD	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	7471B	152006
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152006
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	7471B	152006
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152006
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152006
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152006
LCS 280-152006/2-A	Lab Control Sample	Total/NA	Solid	7471B	152006

Metals (Continued)

Analysis Batch: 152272 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-152006/1-A	Method Blank	Total/NA	Solid	7471B	152006

Analysis Batch: 152324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	6010C	151989
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	151989
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	6010C	151989
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	151989
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	151989
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-35 MS	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
280-36846-35 MSD	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	151989
LCS 280-151989/2-A	Lab Control Sample	Total/NA	Solid	6010C	151989
MB 280-151989/1-A	Method Blank	Total/NA	Solid	6010C	151989

Prep Batch: 152445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	151863
LCS 280-152445/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 280-152445/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 152510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	6020A	151990
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151990
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	6020A	151990
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151990
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151990
280-36846-32 MS	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151990
280-36846-32 MSD	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	151990

Metals (Continued)

Analysis Batch: 152510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	151990
LCS 280-151990/2-A	Lab Control Sample	Total/NA	Solid	6020A	151990
MB 280-151990/1-A	Method Blank	Total/NA	Solid	6020A	151990

Analysis Batch: 152658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	6010C	151989
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	6010C	151989
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	6010C	152226
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-48 MS	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
280-36846-48 MSD	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6010C	152226
LCS 280-152226/2-A	Lab Control Sample	Total/NA	Solid	6010C	152226
MB 280-152226/1-A	Method Blank	Total/NA	Solid	6010C	152226

Analysis Batch: 152719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	6020A	152228
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-48 MS	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
280-36846-48 MSD	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	6020A	152228
LCS 280-152228/2-A	Lab Control Sample	Total/NA	Solid	6020A	152228
MB 280-152228/1-A	Method Blank	Total/NA	Solid	6020A	152228

Analysis Batch: 152990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152445
280-36846-37 MS	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152445
280-36846-37 MSD	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	7471B	152445
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152445
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152445
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152445
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152445
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	7471B	152445
LCS 280-152445/2-A	Lab Control Sample	Total/NA	Solid	7471B	152445
MB 280-152445/1-A	Method Blank	Total/NA	Solid	7471B	152445

General Chemistry

Leach Batch: 151863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

General Chemistry (Continued)

Leach Batch: 151863 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-3 DU	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-3 DU	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	Increment, Prep	
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	DI Leach	
280-36846-5 DU	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	DI Leach	
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	Increment, Prep	
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	DI Leach	
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Total/NA	Solid	Increment, Prep	
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36846-37 DU	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	DI Leach	
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	DI Leach	
280-36846-49	SL-542-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-50	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	Increment, Prep	
280-36846-51	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36846-51 DU	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	Increment, Prep	
280-36846-52	SL-545-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-53	SL-545-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-54	SL-545-SA6-SB-9.0-10.0	Total/NA	Solid	Increment, Prep	

General Chemistry (Continued)

Leach Batch: 151863 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-55	SL-547-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	
280-36846-56	SL-547-SA6-SB-4.0-5.0	Total/NA	Solid	Increment, Prep	
280-36846-57	SL-547-SA6-SB-9.0-10.0	Total/NA	Solid	Increment, Prep	

Analysis Batch: 152183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-3 DU	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	Moisture	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	Moisture	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-21	SL-654A-SA6-SB-2.0-3.0	Total/NA	Solid	Moisture	151863
280-36846-22	SL-654B-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-23	SL-654C-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-49	SL-542-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-50	SL-542-SA6-SB-3.0-4.0MS	Total/NA	Solid	Moisture	151863
280-36846-51	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	151863
280-36846-51 DU	SL-942-SA6-SB-3.0-4.0	Total/NA	Solid	Moisture	151863
280-36846-52	SL-545-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-53	SL-545-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-54	SL-545-SA6-SB-9.0-10.0	Total/NA	Solid	Moisture	151863
280-36846-55	SL-547-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	151863
280-36846-56	SL-547-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	151863
280-36846-57	SL-547-SA6-SB-9.0-10.0	Total/NA	Solid	Moisture	151863

Analysis Batch: 152353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-3	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-3 DU	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-8	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-13	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-18	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-25	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-27	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	151863
280-36846-30	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863

General Chemistry (Continued)

Analysis Batch: 152353 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-32	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	151863
280-36846-35	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-37	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	151863
280-36846-37 DU	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	151863
280-36846-40	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-42	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-44	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-46	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
280-36846-48	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	9045D	151863
LCS 280-152353/25	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-152353/26	Lab Control Sample Dup	Total/NA	Solid	9045D	

Analysis Batch: 152532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-2	SL-557-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-4	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	Moisture	
280-36846-6	SL-557-SA6-SB-6.0	Total/NA	Solid	Moisture	
280-36846-7	SL-603-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-9	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36846-11	SL-603-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36846-12	SL-604-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-14	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	Moisture	
280-36846-16	SL-604-SA6-SB-4.0	Total/NA	Solid	Moisture	
280-36846-17	SL-653-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-19	SL-654A-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-24	SL-596-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-26	SL-596-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36846-28	SL-596-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36846-29	SL-598-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-31	SL-598-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36846-33	SL-598-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36846-34	SL-601-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-36	SL-601-SA6-SB-4.0-5.0	Total/NA	Solid	Moisture	
280-36846-38	SL-601-SA6-SB-4.5	Total/NA	Solid	Moisture	
280-36846-39	SL-608-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-41	SL-666-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-43	SL-667-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-45	SL-668-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	
280-36846-47	SL-684-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	

Analysis Batch: 152647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36846-5	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	9045D	151863
280-36846-5 DU	SL-557-SA6-SB-5.5-6.5	Total/NA	Solid	9045D	151863
280-36846-10	SL-603-SA6-SB-4.0-5.0	Total/NA	Solid	9045D	151863
280-36846-15	SL-604-SA6-SB-3.5-4.5	Total/NA	Solid	9045D	151863
LCS 280-152647/4	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 280-152647/5	Lab Control Sample Dup	Total/NA	Solid	9045D	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: TB-121012 — Lab Sample ID: 280-36846-1

Date Collected: 12/10/12 08:00 — **Matrix: Water**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 mL	5 mL	152283	12/14/12 16:52	TEM	TAL DEN

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-2

Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.2 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		10			152451	12/16/12 17:06	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			32.9 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 17:12	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-3

Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			32.0 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 16:24	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.59 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:37	JM	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:21	JKH	TAL DEN
Total/NA	Prep	3050B			1.10 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:12	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:39	DA	TAL DEN

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-4

Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.1 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 18:21	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.2 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-4

Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			152999	12/14/12 17:36	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-5

Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Prep	3546			31.2 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 18:11	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:49	JM	TAL DEN
Total/NA	Prep	3050B			1.17 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:24	JKH	TAL DEN
Total/NA	Prep	3050B			1.17 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:15	TEL	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 16:03	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152647	12/17/12 20:12	DA	TAL DEN

Client Sample ID: SL-557-SA6-SB-6.0 — Lab Sample ID: 280-36846-6

Date Collected: 12/10/12 10:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.68 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 19:15	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-7

Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.8 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		20			152451	12/16/12 18:46	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		5			153000	12/18/12 14:49	MRB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-7

Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-8

Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			31.5 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 18:32	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.56 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:51	JM	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:26	JKH	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:18	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:57	DA	TAL DEN

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-9

Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		20			152451	12/16/12 19:11	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.9 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		10			153000	12/18/12 15:14	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-10

Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.9 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 18:54	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-10

Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.58 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:54	JM	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:29	JKH	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:21	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152647	12/17/12 20:14	DA	TAL DEN

Client Sample ID: SL-603-SA6-SB-4.5 — Lab Sample ID: 280-36846-11

Date Collected: 12/10/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.46 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 19:45	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-12

Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.5 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		10			152451	12/16/12 19:36	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.7 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		5			153000	12/18/12 15:38	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-13

Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 19:15	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:56	JM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-604-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-13
Date Collected: 12/10/12 09:25
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.13 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:31	JKH	TAL DEN
Total/NA	Prep	3050B			1.20 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:24	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:41	DA	TAL DEN

Client Sample ID: SL-604-SA6-SB-3.5-4.5

Lab Sample ID: 280-36846-14
Date Collected: 12/10/12 09:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.3 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152451	12/16/12 20:01	KGV	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.4 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 20:02	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-604-SA6-SB-3.5-4.5

Lab Sample ID: 280-36846-15
Date Collected: 12/10/12 09:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			31.0 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 19:37	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 16:59	JM	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:33	JKH	TAL DEN
Total/NA	Prep	3050B			1.12 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:27	TEL	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 16:06	JKH	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152647	12/17/12 20:15	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-604-SA6-SB-4.0

Lab Sample ID: 280-36846-16
Date Collected: 12/10/12 09:45
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.14 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 20:14	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-653-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-17
Date Collected: 12/10/12 10:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.7 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		10			152839	12/18/12 22:02	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			33.0 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 20:26	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-653-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-18
Date Collected: 12/10/12 10:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 19:58	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:01	JM	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:36	JKH	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:29	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:42	DA	TAL DEN

Client Sample ID: SL-654A-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-19
Date Collected: 12/10/12 08:15
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.3 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		10			152839	12/18/12 22:27	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-19

Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			32.6 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 20:51	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-20

Date Collected: 12/10/12 08:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			31.1 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		4			153330	12/21/12 11:53	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:03	JM	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:47	JKH	TAL DEN
Total/NA	Prep	3050B			1.00 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 17:32	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:43	DA	TAL DEN

Client Sample ID: SL-654A-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36846-21

Date Collected: 12/10/12 08:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 20:41	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-22

Date Collected: 12/10/12 09:05 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-654B-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-22

Date Collected: 12/10/12 09:05 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1			152491	12/17/12 21:02	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 15:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-654C-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-23

Date Collected: 12/10/12 09:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			32.8 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 21:24	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-24

Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.0 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 21:11	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.2 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 21:15	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-25

Date Collected: 12/10/12 14:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 21:45	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:06	JM	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:49	JKH	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 18:28	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-596-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-25
Date Collected: 12/10/12 14:25
Matrix: Solid
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:44	DA	TAL DEN

Client Sample ID: SL-596-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-26
Date Collected: 12/10/12 14:35
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.3 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 21:36	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 21:39	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-596-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-27
Date Collected: 12/10/12 14:35
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.5 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 22:06	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:08	JM	TAL DEN
Total/NA	Prep	3050B			1.00 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:51	JKH	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 18:31	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:45	DA	TAL DEN

Client Sample ID: SL-596-SA6-SB-4.5

Lab Sample ID: 280-36846-28
Date Collected: 12/10/12 14:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.34 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 20:44	TEM	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-596-SA6-SB-4.5 — Lab Sample ID: 280-36846-28

Date Collected: 12/10/12 14:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-29

Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.7 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 22:01	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.0 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 22:03	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-30

Date Collected: 12/10/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			31.7 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 23:11	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:15	JM	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:54	JKH	TAL DEN
Total/NA	Prep	3050B			1.06 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 18:34	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:46	DA	TAL DEN

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-31

Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 22:26	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.6 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-31

Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1			152999	12/14/12 22:52	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-32

Date Collected: 12/10/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 23:32	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:18	JM	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:56	JKH	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 18:37	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:47	DA	TAL DEN

Client Sample ID: SL-598-SA6-SB-4.5 — Lab Sample ID: 280-36846-33

Date Collected: 12/10/12 13:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.31 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 21:13	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-34

Date Collected: 12/10/12 13:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.1 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		10			152839	12/18/12 22:52	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.7 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 23:16	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-601-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-35

Date Collected: 12/10/12 13:00
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	152076	12/13/12 15:50	NC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/17/12 23:54	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Prep	7471B			0.53 g	50 mL	152006	12/13/12 11:30	JM	TAL DEN
Total/NA	Analysis	7471B		1			152272	12/13/12 17:20	JM	TAL DEN
Total/NA	Prep	3050B			1.02 g	100 mL	151989	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152324	12/14/12 16:58	JKH	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	151990	12/14/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152510	12/14/12 18:51	TEL	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/12/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:48	DA	TAL DEN

Client Sample ID: SL-601-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-36

Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.6 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 23:16	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.2 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/14/12 23:40	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-601-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-37

Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 01:19	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.04 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:39	JKH	TAL DEN
Total/NA	Prep	3050B			1.17 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 21:54	TEL	TAL DEN
Total/NA	Prep	7471B			0.50 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:26	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-37

Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:50	DA	TAL DEN

Client Sample ID: SL-601-SA6-SB-4.5 — Lab Sample ID: 280-36846-38

Date Collected: 12/10/12 13:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.21 g	5 mL	151823	12/12/12 12:35	AMB	TAL DEN
Total/NA	Analysis	8015B		1			151895	12/12/12 21:42	TEM	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:53	DFB	TAL DEN

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-39

Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.5 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/17/12 23:41	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			30.1 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/15/12 00:04	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-40

Date Collected: 12/10/12 12:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.2 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 03:06	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.00 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:41	JKH	TAL DEN
Total/NA	Prep	3050B			1.16 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 21:57	TEL	TAL DEN
Total/NA	Prep	7471B			0.51 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:37	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:52	DA	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-41

Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.0 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		20			152839	12/18/12 23:17	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.7 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/15/12 00:29	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-42

Date Collected: 12/10/12 12:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.0 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 03:28	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.17 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:44	JKH	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 22:00	TEL	TAL DEN
Total/NA	Prep	7471B			0.54 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:39	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:53	DA	TAL DEN

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-43

Date Collected: 12/10/12 14:15 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.9 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/18/12 00:31	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			32.4 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/15/12 00:53	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-667-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-44

Date Collected: 12/10/12 14:15
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.6 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 03:49	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.00 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:46	JKH	TAL DEN
Total/NA	Prep	3050B			1.13 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 22:03	TEL	TAL DEN
Total/NA	Prep	7471B			0.58 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:42	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:54	DA	TAL DEN

Client Sample ID: SL-668-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-45

Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		20			152839	12/18/12 23:42	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			31.4 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/15/12 01:17	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-668-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-46

Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.5 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 04:11	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.18 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:48	JKH	TAL DEN
Total/NA	Prep	3050B			1.08 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 22:41	TEL	TAL DEN
Total/NA	Prep	7471B			0.57 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:44	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-46

Date Collected: 12/10/12 13:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:55	DA	TAL DEN

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-47

Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			31.4 g	1000 uL	151884	12/12/12 16:55	CDC	TAL DEN
Total/NA	Analysis	8270C SIM		1			152615	12/18/12 01:21	JS	TAL DEN
Total/NA	Analysis	None		1			153370	12/21/12 10:29	JB	TAL DEN
Total/NA	Prep	3550C			32.3 g	1000 uL	152022	12/13/12 14:30	SPF	TAL DEN
Total/NA	Analysis	8015B		1			152999	12/15/12 01:42	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			152532	12/17/12 10:52	DFB	TAL DEN

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-48

Date Collected: 12/10/12 14:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3546			30.1 g	10000 uL	152181	12/14/12 10:15	LC	TAL DEN
Total/NA	Analysis	8082A		1			152491	12/18/12 04:32	TDJ	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Prep	3050B			1.11 g	100 mL	152226	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6010C		1			152658	12/17/12 17:19	JKH	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	152228	12/17/12 08:00	RC	TAL DEN
Total/NA	Analysis	6020A		1			152719	12/17/12 22:43	TEL	TAL DEN
Total/NA	Prep	7471B			0.55 g	50 mL	152445	12/18/12 12:10	NF	TAL DEN
Total/NA	Analysis	7471B		1			152990	12/18/12 14:46	NF	TAL DEN
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:41	AFB	TAL DEN
Total/NA	Leach	DI Leach				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	9045D		1	1.0 mL	1.0 mL	152353	12/14/12 19:56	DA	TAL DEN

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-49

Date Collected: 12/07/12 07:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 85.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.05 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 00:36	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-542-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-49

Date Collected: 12/07/12 07:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-542-SA6-SB-3.0-4.0MS — Lab Sample ID: 280-36846-50

Date Collected: 12/07/12 08:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.03 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 01:02	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-942-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36846-51

Date Collected: 12/07/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.07 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 02:19	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-545-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-52

Date Collected: 12/07/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.01 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 02:45	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-545-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-53

Date Collected: 12/07/12 10:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.06 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 03:10	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-1

Client Sample ID: SL-545-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36846-54

Date Collected: 12/07/12 10:30 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.00 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 03:36	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-547-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-55

Date Collected: 12/07/12 12:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.00 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 04:53	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-547-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-56

Date Collected: 12/07/12 13:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.03 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 05:19	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Client Sample ID: SL-547-SA6-SB-9.0-10.0 — Lab Sample ID: 280-36846-57

Date Collected: 12/07/12 13:50 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.04 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 05:44	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	151863	12/13/12 14:58	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152183	12/14/12 09:22	AFB	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

SSFL Phase 3 Chain of Custody

28
4.0
2.8
hrmm

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street, Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-121012	12/10/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-557-SA6-SB-0.0-0.5	12/10/12 10:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-557-SA6-SB-0.0-0.5	12/10/12 10:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-557-SA6-SB-5.5-6.5	12/10/12 10:45	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-557-SA6-SB-5.5-6.5	12/10/12 10:45	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-557-SA6-SB-6.0	12/10/12 10:50	SO	None	3 - Encore	10 day																				X												
SL-603-SA6-SB-0.0-0.5	12/10/12 08:20	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-603-SA6-SB-0.0-0.5	12/10/12 08:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-603-SA6-SB-4.0-5.0	12/10/12 08:40	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-603-SA6-SB-4.0-5.0	12/10/12 08:40	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-603-SA6-SB-4.5	12/10/12 08:45	SO	None	3 - Encore	10 day																				X												
SL-604-SA6-SB-0.0-0.5	12/10/12 09:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-604-SA6-SB-0.0-0.5	12/10/12 09:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-604-SA6-SB-3.5-4.5	12/10/12 09:40	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-604-SA6-SB-3.5-4.5	12/10/12 09:40	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-604-SA6-SB-4.0	12/10/12 09:45	SO	None	3 - Encore	10 day																				X												
SL-653-SA6-SB-0.0-0.5	12/10/12 10:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-653-SA6-SB-0.0-0.5	12/10/12 10:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-654A-SA6-SB-0.0-0.5	12/10/12 08:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-654A-SA6-SB-0.0-0.5	12/10/12 08:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-654A-SA6-SB-2.0-3.0	12/10/12 08:50	SO	None	1 - SS-Sleeve	10 day										X																						
SL-654B-SA6-SB-0.0-0.5	12/10/12 09:05	SO	None	1 - SS-Sleeve	10 day										X																						
SL-654C-SA6-SB-0.0-0.5	12/10/12 09:30	SO	None	1 - SS-Sleeve	10 day										X																						
SL-596-SA6-SB-0.0-0.5	12/10/12 14:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-596-SA6-SB-0.0-0.5	12/10/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-596-SA6-SB-4.0-5.0	12/10/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-596-SA6-SB-4.0-5.0	12/10/12 14:35	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-596-SA6-SB-4.5	12/10/12 14:40	SO	None	3 - Encore	10 day																				X												
SL-598-SA6-SB-0.0-0.5	12/10/12 13:40	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-598-SA6-SB-0.0-0.5	12/10/12 13:40	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-598-SA6-SB-4.0-5.0	12/10/12 13:50	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-598-SA6-SB-4.0-5.0	12/10/12 13:50	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-598-SA6-SB-4.5	12/10/12 13:55	SO	None	3 - Encore	10 day																				X												
SL-601-SA6-SB-0.0-0.5	12/10/12 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-601-SA6-SB-0.0-0.5	12/10/12 13:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-601-SA6-SB-4.0-5.0	12/10/12 13:10	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-601-SA6-SB-4.0-5.0	12/10/12 13:10	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-601-SA6-SB-4.5	12/10/12 13:15	SO	None	3 - Encore	10 day																				X												
SL-608-SA6-SB-0.0-0.5	12/10/12 12:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-608-SA6-SB-0.0-0.5	12/10/12 12:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-666-SA6-SB-0.0-0.5	12/10/12 12:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-666-SA6-SB-0.0-0.5	12/10/12 12:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-667-SA6-SB-0.0-0.5	12/10/12 14:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-667-SA6-SB-0.0-0.5	12/10/12 14:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-668-SA6-SB-0.0-0.5	12/10/12 13:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-668-SA6-SB-0.0-0.5	12/10/12 13:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-684-SA6-SB-0.0-0.5	12/10/12 14:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-684-SA6-SB-0.0-0.5	12/10/12 14:50	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters [illegible]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/10/2012	1600	[illegible]	12-12-12	0930						

[redacted]

2.2 [illegible] 12/12/12
FP

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo:

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-02
Cooler #:
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

124053

	Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	1,4 Dioxane 8270 SIM	PAHs 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
-2	SL-542-SA6-SB-0.0-0.5	12/7/12 07:50	SO	None	2 - SS-Sleeve	10 day																												X				
-3	SL-542-SA6-SB-3.0-4.0MS	12/7/12 08:45	SO	None	6 - 16 oz glass	10 day																												X				MS/MSD
-4	SL-942-SA6-SB-3.0-4.0	12/7/12 08:55	SO	None	2 - 16 oz glass	10 day																												X				
-7	SL-545-SA6-SB-0.0-0.5	12/7/12 09:40	SO	None	2 - SS-Sleeve	10 day																												X				
-8	SL-545-SA6-SB-4.0-5.0	12/7/12 10:20	SO	None	2 - 16 oz glass	10 day																												X				
-9	SL-545-SA6-SB-9.0-10.0	12/7/12 10:30	SO	None	2 - 16 oz glass	10 day																												X				
-12	SL-547-SA6-SB-0.0-0.5	12/7/12 12:40	SO	None	2 - SS-Sleeve	10 day																												X				
-13	SL-547-SA6-SB-4.0-5.0	12/7/12 13:40	SO	None	2 - 16 oz glass	10 day																												X				
-14	SL-547-SA6-SB-9.0-10.0	12/7/12 13:50	SO	None	2 - 16 oz glass	10 day																												X				

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	10/10/2012	1200	[illegible]	12-12-12	93-	[illegible]	12/10/12	1230			

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36846-1

Login Number: 36846

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36846-1

Login Number: 36846
List Number: 1
Creator: Huckaba, Jimmy

List Source: TestAmerica Nashville
List Creation: 12/15/12 10:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 13, 2012 2:36 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36846, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the thirty-seven samples received at the laboratory on 12/12/12.

The samples were received in acceptable condition at temperatures of 2.8, 4.0, 2.8 and 2.2ºC.

Receipt Discrepancies:
1.) Due to a transit issue, FedEx was unable to deliver the samples to the lab on Tuesday as scheduled. Due of this delay, the Encore volume expired in transit for samples SL-557-SA6-SB-6.0 (280-36846-6), SL-603-SA6-SB-4.5 (280-36846-11) and SL-604-SA6-SB-4.0 (280-36846-16). The client was notified and instructed the laboratory to proceed with the requested analyses.

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.
2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.
3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample. For example, moisture data for sample SL-573-SA5B-SB-4.5 should be uploaded from sample SL-573-SA5B-SB-4.0-5.0.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Canton laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36846-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [089496]
Attachments: 5

Uriell, Lisa

From: Burgesser, Todd [BurgesserTE@cdmsmith.com]
Sent: Tuesday, December 11, 2012 11:12 AM
To: Uriell, Lisa; Mysel, Stefanie; Hartman, Pamela; Zakowski, Cherie
Cc: Eichelberger, Elizabeth
Subject: RE: SSFL 12/10/2012 COC

Please proceed and inform us of any missed holding time. The misses holding times for the GRO analyses will likely result in qualification (on our part) of the data as estimated but if they are prepared within 96-hours of collection we will avoid rejecting the results and having to re-sample. Please keep us informed on the progress of these samples.

From: Uriell, Lisa [mailto:Lisa.Uriell@testamericainc.com]
Sent: Tuesday, December 11, 2012 11:02 AM
To: Burgesser, Todd; Mysel, Stefanie; Hartman, Pamela; Zakowski, Cherie
Cc: Eichelberger, Elizabeth
Subject: RE: SSFL 12/10/2012 COC
Importance: High

Good Morning,

It appears that the three coolers destined for Denver did not arrive at the Denver lab. They are currently in Fort Worth, Texas.

We spoke with FedEx and they will be keeping these coolers chilled. The missing volume should arrive on Wednesday, December 12, 2012; however the holding time for the solid encore volume may have expired for several of the samples. Would you like for us to proceed with the requested analyses, or cancel any expired methods pending recollection?

We will provide a sample confirmation including the cooler temperatures on Wednesday.

Let us know if you need more information.

Thank you.

LISA B. URIELL
Project Manager
(303) 736-0103
Lisa.Uriell@TestAmericainc.com

From: Burgesser, Todd [mailto:BurgesserTE@cdmsmith.com]
Sent: Tuesday, December 11, 2012 8:39 AM
To: Uriell, Lisa; Mysel, Stefanie; Eichelberger, Elizabeth
Cc: Hartman, Pamela
Subject: RE: SSFL 12/10/2012 COC

That is fine

From: Uriell, Lisa [mailto:Lisa.Uriell@testamericainc.com]
Sent: Tuesday, December 11, 2012 8:30 AM
To: Burgesser, Todd; Mysel, Stefanie; Eichelberger, Elizabeth
Cc: Hartman, Pamela
Subject: RE: SSFL 12/10/2012 COC

Would you like these samples logged into the same SDG as the samples we will be receiving today?

LISA B. URIELL
Project Manager
(303) 736-0103
Lisa.Uriell@TestAmericainc.com

From: Burgesser, Todd [mailto:BurgesserTE@cdmsmith.com]
Sent: Tuesday, December 11, 2012 7:57 AM
To: Mysel, Stefanie; Uriell, Lisa; Eichelberger, Elizabeth
Cc: Hartman, Pamela
Subject: RE: SSFL 12/10/2012 COC

In addition, The following samples associated with the samples sent to you on Saturday will be arriving today. All of these are for formaldehyde

---

From: Mysel, Stefanie
Sent: Monday, December 10, 2012 5:08 PM
To: lisa.uriell@testamericainc.com; elizabeth.eichelberger@testamericainc.com; Burgesser, Todd
Cc: Hartman, Pamela; Mysel, Stefanie
Subject: SSFL 12/10/2012 COC

Lisa,

3 coolers were shipped to your lab for delivery tomorrow. These samples are from today's sampling. Samples were collected from subarea 6. The airbill number for today's shipment is 794266139531. Let me know if you have any questions or issues. Attached is an excel table with sample names, dates and times from today's sampling.

Regards,

Stefanie J. Mysel
Geologist

CDM Smith
100 Pringle Avenue
Suite 300
Walnut Creek, CA 94596

Main: 925-933-2900
Direct: 925-296-8081
Cell: 610-248-2430
Email: myselsj@cdmsmith.com

SAMPLE DELIVERY GROUP

280-36846-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36846-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/9/2013 7:33:27 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 10
Sample Summary 11
Chronicle 12
Subcontract Data 16
Chain of Custody 72
Receipt Checklists 76

Job ID: 280-36846-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36846-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Nineteen soil samples were received under Chain of Custody on December 12, 2012. The samples were received in good condition at temperatures of 2.8°C, 4.0°C, 2.8°C and 2.2°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36846-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
S	Ion suppression.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
*	Surrogate recovery is outside stated control limits.
C	Co-eluting isomer.
X	See project narrative.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.48	Q J	5.9	0.14	0.5	0.24	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.7	J	5.9	0.13	0.1	0.27	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	7.4		5.9	0.14	0.1	0.74	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	8.5	C	5.9	0.12	0.1	0.85	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	280		5.9	0.28	0.01	2.8	ng/kg	1	☼	1613B	Total
OCDD	3800	B	12	0.28	0.001	3.8	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.88	J	1.2	0.20	0.1	0.088	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.44	J	5.9	0.096	0.05	0.022	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.65	J	5.9	0.093	0.5	0.33	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.2	J	5.9	0.070	0.1	0.22	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	3.9	Q J	5.9	0.065	0.1	0.39	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.86	Q J	5.9	0.071	0.1	0.086	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.18	Q J	5.9	0.087	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	40		5.9	0.13	0.01	0.40	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.5	J	5.9	0.15	0.01	0.025	ng/kg	1	☼	1613B	Total
OCDF	160	B	12	0.22	0.001	0.16	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.0	Q J	5.4	0.11	0.01	0.010	ng/kg	1	☼	1613B	Total
OCDD	26	S B	11	0.29	0.001	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.25	J	5.4	0.060	0.01	0.0025	ng/kg	1	☼	1613B	Total
OCDF	1.3	Q B J	11	0.23	0.001	0.0013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.22	J	5.8	0.10	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.32	J	5.8	0.082	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.53	J	5.8	0.092	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.26	Q S J	5.8	0.080	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	13		5.8	0.11	0.01	0.13	ng/kg	1	☼	1613B	Total
OCDD	170	B	12	0.11	0.001	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.11	J	5.8	0.055	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.15	J	5.8	0.054	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.2	J	5.8	0.075	0.01	0.022	ng/kg	1	☼	1613B	Total
OCDF	3.1	B J	12	0.11	0.001	0.0031	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.11	Q J	5.6	0.066	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.25	Q J	5.6	0.11	0.01	0.0025	ng/kg	1	☼	1613B	Total
OCDD	5.6	S B J	11	0.19	0.001	0.0056	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.88	J	5.6	0.19	0.01	0.0088	ng/kg	1	☼	1613B	Total
OCDD	7.8	B J	11	0.25	0.001	0.0078	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.089	Q J	5.6	0.064	0.1	0.0089	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-604-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	0.44	J	5.6	0.10	0.01	0.0044	ng/kg	1	☼	1613B	Total
OCDF	1.2	Q B J	11	0.22	0.001	0.0012	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-604-SA6-SB-3.5-4.5 — Lab Sample ID: 280-36846-15

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	4.2	B J	11	0.24	0.001	0.0042	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-653-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-18

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	1.9	Q J	5.7	0.72	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.0	Q J	5.7	0.55	0.1	0.20	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	85		5.7	1.8	0.01	0.85	ng/kg	1	☼	1613B	Total
OCDD	590	B	11	1.9	0.001	0.59	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.67	Q J	1.1	0.38	0.1	0.067	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.58	Q J	5.7	0.22	0.5	0.29	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.85	J	5.7	0.29	0.1	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.5	S J	5.7	0.80	0.01	0.045	ng/kg	1	☼	1613B	Total
OCDF	14	Q B	11	1.8	0.001	0.014	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-654A-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-20

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.29	Q J	5.7	0.12	0.5	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.66	J	5.7	0.17	0.1	0.066	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	3.1	Q J	5.7	0.18	0.1	0.31	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.3	Q J	5.7	0.16	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	92		5.7	0.29	0.01	0.92	ng/kg	1	☼	1613B	Total
OCDD	920	B	11	0.42	0.001	0.92	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.60	Q J	1.1	0.14	0.1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.28	J	5.7	0.11	0.05	0.014	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.83	J	5.7	0.093	0.5	0.42	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.79	J	5.7	0.083	0.1	0.079	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.73	Q J	5.7	0.082	0.1	0.073	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.18	Q J	5.7	0.087	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	14		5.7	0.14	0.01	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.4	J	5.7	0.21	0.01	0.014	ng/kg	1	☼	1613B	Total
OCDF	29	Q B	11	0.40	0.001	0.029	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-596-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-25

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.37	Q J	5.4	0.11	0.5	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.60	J	5.4	0.10	0.1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.8	J	5.4	0.10	0.1	0.18	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.6	J	5.4	0.093	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	54		5.4	0.15	0.01	0.54	ng/kg	1	☼	1613B	Total
OCDD	890	B	11	0.12	0.001	0.89	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.52	J	1.1	0.17	0.1	0.052	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.19	Q J	5.4	0.079	0.05	0.0095	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.23	J	5.4	0.077	0.5	0.12	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-596-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-25

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.50	Q J	5.4	0.067	0.1	0.050	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.81	Q J	5.4	0.059	0.1	0.081	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	J	5.4	0.062	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.30	J	5.4	0.080	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	9.4		5.4	0.076	0.01	0.094	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.54	J	5.4	0.13	0.01	0.0054	ng/kg	1	☼	1613B	Total
OCDF	33	B	11	0.080	0.001	0.033	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-596-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-27

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.55	Q J	5.0	0.086	0.01	0.0055	ng/kg	1	☼	1613B	Total
OCDD	12	B	9.9	0.075	0.001	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.18	Q J	5.0	0.063	0.01	0.0018	ng/kg	1	☼	1613B	Total
OCDF	0.30	Q B J	9.9	0.070	0.001	0.00030	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-598-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-30

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.6	Q J	5.5	0.17	0.5	0.80	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.9	J	5.5	0.11	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	7.2		5.5	0.12	0.1	0.72	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	7.8	C	5.5	0.10	0.1	0.78	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	200		5.5	0.15	0.01	2.0	ng/kg	1	☼	1613B	Total
OCDD	3300	B	11	0.20	0.001	3.3	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.76	J	1.1	0.21	0.1	0.076	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.67	J	5.5	0.10	0.5	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.6	J C	5.5	0.072	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	3.0	Q J	5.5	0.075	0.1	0.30	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.62	J	5.5	0.078	0.1	0.062	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.087	Q J	5.5	0.088	0.1	0.0087	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	22		5.5	0.11	0.01	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.3	Q J	5.5	0.17	0.01	0.013	ng/kg	1	☼	1613B	Total
OCDF	61	B	11	0.094	0.001	0.061	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-598-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-32

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.1	J	5.0	0.084	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDD	23	B	10	0.089	0.001	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.17	J	5.0	0.055	0.01	0.0017	ng/kg	1	☼	1613B	Total
OCDF	0.41	B J	10	0.063	0.001	0.00041	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-601-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-35

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.0	Q J	5.3	0.11	0.5	0.50	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.6	J	5.3	0.099	0.1	0.26	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	5.0	J	5.3	0.10	0.1	0.50	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	6.3		5.3	0.092	0.1	0.63	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	180		5.3	0.13	0.01	1.8	ng/kg	1	☼	1613B	Total
OCDD	2200	B	11	0.12	0.001	2.2	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-601-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36846-35

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.25	Q J	1.1	0.15	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.092	Q J	5.3	0.096	0.05	0.0046	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.28	Q J	5.3	0.087	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.3	Q J	5.3	0.067	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	8.7	Q	5.3	0.059	0.1	0.87	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	1.2	J	5.3	0.064	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.18	J	5.3	0.077	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	40		5.3	0.086	0.01	0.40	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.9	J	5.3	0.15	0.01	0.029	ng/kg	1	☼	1613B	Total
OCDF	140	B	11	0.092	0.001	0.14	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-601-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-37

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.7	J	5.1	0.10	0.01	0.017	ng/kg	1	☼	1613B	Total
OCDD	32	B	10	0.11	0.001	0.032	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.38	Q J	5.1	0.076	0.01	0.0038	ng/kg	1	☼	1613B	Total
OCDF	1.8	B J	10	0.072	0.001	0.0018	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-608-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-40

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.60	Q J	5.5	0.17	0.5	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.8	J	5.5	0.19	0.1	0.18	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.6	J	5.5	0.19	0.1	0.46	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	5.1	C J	5.5	0.18	0.1	0.51	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	160		5.5	0.20	0.01	1.6	ng/kg	1	☼	1613B	Total
OCDD	1900	B	11	0.21	0.001	1.9	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.70	Q J	1.1	0.21	0.1	0.070	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.25	J	5.5	0.12	0.05	0.013	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.44	Q J	5.5	0.11	0.5	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.94	Q J	5.5	0.095	0.1	0.094	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.2	Q J	5.5	0.085	0.1	0.12	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.53	J	5.5	0.094	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	15		5.5	0.13	0.01	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.0	J	5.5	0.20	0.01	0.010	ng/kg	1	☼	1613B	Total
OCDF	32	B	11	0.11	0.001	0.032	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-666-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-42

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.50	J	5.6	0.11	0.1	0.050	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.68	J	5.6	0.099	0.1	0.068	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	12		5.6	0.16	0.01	0.12	ng/kg	1	☼	1613B	Total
OCDD	190	B	11	0.10	0.001	0.19	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.72	J	1.1	0.18	0.1	0.072	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.17	J	5.6	0.083	0.05	0.0085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.20	J	5.6	0.063	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.22	Q J	5.6	0.057	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.19	J	5.6	0.078	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.5	Q J	5.6	0.091	0.01	0.015	ng/kg	1	☼	1613B	Total
OCDF	2.6	B J	11	0.083	0.001	0.0026	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-667-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-44

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.71	J	5.7	0.15	0.5	0.36	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.1	J	5.7	0.12	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.0	J	5.7	0.13	0.1	0.20	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.2	J C	5.7	0.11	0.1	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	53		5.7	0.18	0.01	0.53	ng/kg	1	☼	1613B	Total
OCDD	1100	B	11	0.14	0.001	1.1	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.4	X	1.1	0.22	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.27	J	5.7	0.12	0.05	0.014	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.33	J	5.7	0.11	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.46	J	5.7	0.079	0.1	0.046	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.50	Q J	5.7	0.069	0.1	0.050	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.21	Q J	5.7	0.077	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.6	Q J	5.7	0.087	0.01	0.046	ng/kg	1	☼	1613B	Total
OCDF	7.7	B J	11	0.089	0.001	0.0077	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-668-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-46

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.8	J	5.8	0.087	0.01	0.018	ng/kg	1	☼	1613B	Total
OCDD	15	B	12	0.086	0.001	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.51	Q J	5.8	0.065	0.01	0.0051	ng/kg	1	☼	1613B	Total
OCDF	1.1	Q B J	12	0.10	0.001	0.0011	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-684-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-48

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.44	Q J	5.2	0.094	0.5	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.42	Q J	5.2	0.067	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.3	J	5.2	0.070	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.3	J	5.2	0.063	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	36		5.2	0.086	0.01	0.36	ng/kg	1	☼	1613B	Total
OCDD	500	S B	10	0.11	0.001	0.50	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.16	Q J	1.0	0.15	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.22	Q J	5.2	0.043	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.53	Q J	5.2	0.042	0.1	0.053	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.13	Q J	5.2	0.045	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.14	J	5.2	0.049	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.9		5.2	0.065	0.01	0.059	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.28	Q J	5.2	0.095	0.01	0.0028	ng/kg	1	☼	1613B	Total
OCDF	31	B	10	0.11	0.001	0.031	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36846-3	SL-557-SA6-SB-0.0-0.5	Solid	12/10/12 10:25	12/12/12 09:30
280-36846-5	SL-557-SA6-SB-5.5-6.5	Solid	12/10/12 10:45	12/12/12 09:30
280-36846-8	SL-603-SA6-SB-0.0-0.5	Solid	12/10/12 08:20	12/12/12 09:30
280-36846-10	SL-603-SA6-SB-4.0-5.0	Solid	12/10/12 08:40	12/12/12 09:30
280-36846-13	SL-604-SA6-SB-0.0-0.5	Solid	12/10/12 09:25	12/12/12 09:30
280-36846-15	SL-604-SA6-SB-3.5-4.5	Solid	12/10/12 09:40	12/12/12 09:30
280-36846-18	SL-653-SA6-SB-0.0-0.5	Solid	12/10/12 10:10	12/12/12 09:30
280-36846-20	SL-654A-SA6-SB-0.0-0.5	Solid	12/10/12 08:15	12/12/12 09:30
280-36846-25	SL-596-SA6-SB-0.0-0.5	Solid	12/10/12 14:25	12/12/12 09:30
280-36846-27	SL-596-SA6-SB-4.0-5.0	Solid	12/10/12 14:35	12/12/12 09:30
280-36846-30	SL-598-SA6-SB-0.0-0.5	Solid	12/10/12 13:40	12/12/12 09:30
280-36846-32	SL-598-SA6-SB-4.0-5.0	Solid	12/10/12 13:50	12/12/12 09:30
280-36846-35	SL-601-SA6-SB-0.0-0.5	Solid	12/10/12 13:00	12/12/12 09:30
280-36846-37	SL-601-SA6-SB-4.0-5.0	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-40	SL-608-SA6-SB-0.0-0.5	Solid	12/10/12 12:25	12/12/12 09:30
280-36846-42	SL-666-SA6-SB-0.0-0.5	Solid	12/10/12 12:30	12/12/12 09:30
280-36846-44	SL-667-SA6-SB-0.0-0.5	Solid	12/10/12 14:15	12/12/12 09:30
280-36846-46	SL-668-SA6-SB-0.0-0.5	Solid	12/10/12 13:10	12/12/12 09:30
280-36846-48	SL-684-SA6-SB-0.0-0.5	Solid	12/10/12 14:50	12/12/12 09:30

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-557-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-3

Date Collected: 12/10/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/28/12 19:59	DCG	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2353020	12/18/12 09:29	TN	TAL KNX

Client Sample ID: SL-557-SA6-SB-5.5-6.5 — Lab Sample ID: 280-36846-5

Date Collected: 12/10/12 10:45 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/28/12 20:59	DCG	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:30	TN	TAL KNX

Client Sample ID: SL-603-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-8

Date Collected: 12/10/12 08:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/28/12 21:58	DCG	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:31	TN	TAL KNX

Client Sample ID: SL-603-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36846-10

Date Collected: 12/10/12 08:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/28/12 22:58	DCG	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:31	TN	TAL KNX

Client Sample ID: SL-604-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36846-13

Date Collected: 12/10/12 09:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/31/12 04:17	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:32	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-604-SA6-SB-3.5-4.5

Lab Sample ID: 280-36846-15
Date Collected: 12/10/12 09:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/31/12 05:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:32	TN	TAL KNX

Client Sample ID: SL-653-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-18
Date Collected: 12/10/12 10:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 87

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	12/31/12 06:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:32	TN	TAL KNX

Client Sample ID: SL-654A-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-20
Date Collected: 12/10/12 08:15
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/04/13 14:08	KLW	TAL KNX
Total	Analysis	1613B		1			2352021	12/31/12 07:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:32	TN	TAL KNX

Client Sample ID: SL-596-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-25
Date Collected: 12/10/12 14:25
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 11:33	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:33	TN	TAL KNX

Client Sample ID: SL-596-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-27
Date Collected: 12/10/12 14:35
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 96.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 12:33	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:33	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-598-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-30
Date Collected: 12/10/12 13:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 13:33	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:33	TN	TAL KNX

Client Sample ID: SL-598-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-32
Date Collected: 12/10/12 13:50
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 14:32	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:33	TN	TAL KNX

Client Sample ID: SL-601-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-35
Date Collected: 12/10/12 13:00
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 15:32	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:34	TN	TAL KNX

Client Sample ID: SL-601-SA6-SB-4.0-5.0

Lab Sample ID: 280-36846-37
Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 16:32	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:34	TN	TAL KNX

Client Sample ID: SL-608-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-40
Date Collected: 12/10/12 12:25
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 17:31	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:34	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36846-2

Client Sample ID: SL-666-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-42

Date Collected: 12/10/12 12:30
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 18:31	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:34	TN	TAL KNX

Client Sample ID: SL-667-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-44

Date Collected: 12/10/12 14:15
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/02/13 19:31	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:35	TN	TAL KNX

Client Sample ID: SL-668-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-46

Date Collected: 12/10/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 86

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/03/13 00:59	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:35	TN	TAL KNX

Client Sample ID: SL-684-SA6-SB-0.0-0.5

Lab Sample ID: 280-36846-48

Date Collected: 12/10/12 14:50
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2352021_P	12/17/12 10:00		TAL KNX
Total	Analysis	1613B		1			2352021	01/03/13 01:58	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353020	12/18/12 09:35	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L150409 Analytical Report 1

Sample Receipt Documentation 52

Total Number of Pages 55

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36846-2

CDM - SSFL Area IV

Lot #: H2L150409

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 7, 2013

ANALYTICAL METHODS SUMMARY

H2L150409

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L150409

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXLMF	001	SL-557-SA6-SB-0.0-0.5	12/10/12	10:25
MXLMG	002	SL-557-SA6-SB-5.5-6.5	12/10/12	10:45
MXLMH	003	SL-603-SA6-SB-0.0-0.5	12/10/12	08:20
MXLMJ	004	SL-603-SA6-SB-4.0-5.0	12/10/12	08:40
MXLMK	005	SL-604-SA6-SB-0.0-0.5	12/10/12	09:25
MXLML	006	SL-604-SA6-SB-3.5-4.5	12/10/12	09:40
MXLMM	007	SL-653-SA6-SB-0.0-0.5	12/10/12	10:10
MXLMN	008	SL-654A-SA6-SB-0.0-0.5	12/10/12	08:15
MXLMP	009	SL-596-SA6-SB-0.0-0.5	12/10/12	14:25
MXLMQ	010	SL-596-SA6-SB-4.0-5.0	12/10/12	14:35
MXLMR	011	SL-598-SA6-SB-0.0-0.5	12/10/12	13:40
MXLMT	012	SL-598-SA6-SB-4.0-5.0	12/10/12	13:50
MXLMV	013	SL-601-SA6-SB-0.0-0.5	12/10/12	13:00
MXLMW	014	SL-601-SA6-SB-4.0-5.0	12/10/12	13:10
MXLMX	015	SL-608-SA6-SB-0.0-0.5	12/10/12	12:25
MXLM0	016	SL-666-SA6-SB-0.0-0.5	12/10/12	12:30
MXLM1	017	SL-667-SA6-SB-0.0-0.5	12/10/12	14:15
MXLM2	018	SL-668-SA6-SB-0.0-0.5	12/10/12	13:10
MXLM3	019	SL-684-SA6-SB-0.0-0.5	12/10/12	14:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L150409

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For sample SL-653-SA6-SB-0.0-0.5, the recovery of internal standard 13C-OCDD was below the lower acceptance limit of 17%. The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column because the RTx-5 column is not isomer specific for this analyte. The lower of the 2378-TCDF results are reported for each sample. The 2378-TCDF was reported from the primary Rtx-5 column for sample SL-667-SA6-SB-0.0-0.5. All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF. The DB-225 analytical column raw data is included in the data package after each Rtx-5 column analysis.

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:
>
> **Minimum Level**: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.
>
> Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample

PROJECT NARRATIVE
H2L150409

extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may

PROJECT NARRATIVE
H2L150409

indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

PROJECT NARRATIVE
H2L150409

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-557-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 001	**Work Order #....:**	MXLMF1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	12
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.2	0.30	1.0	0
1,2,3,7,8-PeCDD	**12/28/12**	**1**	**0.48 Q J**	**5.9**	**0.14**	**1.0**	**0.48**
1,2,3,4,7,8-HxCDD	**12/28/12**	**1**	**2.7 J**	**5.9**	**0.13**	**0.1**	**0.27**
1,2,3,6,7,8-HxCDD	**12/28/12**	**1**	**7.4**	**5.9**	**0.14**	**0.1**	**0.74**
1,2,3,7,8,9-HxCDD	**12/28/12**	**1**	**8.5 C**	**5.9**	**0.12**	**0.1**	**0.85**
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**280**	**5.9**	**0.28**	**0.01**	**2.8**
OCDD	**12/28/12**	**1**	**3800 B**	**12**	**0.28**	**0.0003**	**1.1**
2,3,7,8-TCDF	**12/28/12**	**1**	**0.88 J**	**1.2**	**0.20**	**0.1**	**0.088**
1,2,3,7,8-PeCDF	**12/28/12**	**1**	**0.44 J**	**5.9**	**0.096**	**0.03**	**0.013**
2,3,4,7,8-PeCDF	**12/28/12**	**1**	**0.65 J**	**5.9**	**0.093**	**0.3**	**0.20**
1,2,3,4,7,8-HxCDF	**12/28/12**	**1**	**2.2 J**	**5.9**	**0.070**	**0.1**	**0.22**
1,2,3,6,7,8-HxCDF	**12/28/12**	**1**	**3.9 Q J**	**5.9**	**0.065**	**0.1**	**0.39**
2,3,4,6,7,8-HxCDF	**12/28/12**	**1**	**0.86 Q J**	**5.9**	**0.071**	**0.1**	**0.086**
1,2,3,7,8,9-HxCDF	**12/28/12**	**1**	**0.18 Q J**	**5.9**	**0.087**	**0.1**	**0.018**
1,2,3,4,6,7,8-HpCDF	**12/28/12**	**1**	**40**	**5.9**	**0.13**	**0.01**	**0.40**
1,2,3,4,7,8,9-HpCDF	**12/28/12**	**1**	**2.5 J**	**5.9**	**0.15**	**0.01**	**0.025**
OCDF	**12/28/12**	**1**	**160 B**	**12**	**0.22**	**0.0003**	**0.048**
Total TEQ Concentration							**7.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	110	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	90	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	54	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	98	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	97	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-557-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-557-SA6-SB-5.5-6.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 002	**Work Order #....:**	MXLMG1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	8.8
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.1	0.30	1.0	0
1,2,3,7,8-PeCDD	12/28/12	1	ND	5.4	0.098	1.0	0
1,2,3,4,7,8-HxCDD	12/28/12	1	ND	5.4	0.070	0.1	0
1,2,3,6,7,8-HxCDD	12/28/12	1	ND	5.4	0.078	0.1	0
1,2,3,7,8,9-HxCDD	12/28/12	1	ND	5.4	0.069	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**1.0 Q J**	**5.4**	**0.11**	**0.01**	**0.010**
OCDD	**12/28/12**	**1**	**26 S B**	**11**	**0.29**	**0.0003**	**0.0078**
2,3,7,8-TCDF	12/28/12	1	ND	1.1	0.15	0.1	0
1,2,3,7,8-PeCDF	12/28/12	1	ND	5.4	0.069	0.03	0
2,3,4,7,8-PeCDF	12/28/12	1	ND	5.4	0.057	0.3	0
1,2,3,4,7,8-HxCDF	12/28/12	1	ND	5.4	0.043	0.1	0
1,2,3,6,7,8-HxCDF	12/28/12	1	ND	5.4	0.045	0.1	0
2,3,4,6,7,8-HxCDF	12/28/12	1	ND	5.4	0.046	0.1	0
1,2,3,7,8,9-HxCDF	12/28/12	1	ND	5.4	0.054	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/28/12**	**1**	**0.25 J**	**5.4**	**0.060**	**0.01**	**0.0025**
1,2,3,4,7,8,9-HpCDF	12/28/12	1	ND	5.4	0.077	0.01	0
OCDF	**12/28/12**	**1**	**1.3 Q B J**	**11**	**0.23**	**0.0003**	**0.00039**
Total TEQ Concentration							**0.021**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	54	(25 - 164)
13C-1,2,3,7,8-PeCDD	85	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	38	(17 - 157)
13C-2,3,7,8-TCDF	52	(24 - 169)
13C-1,2,3,7,8-PeCDF	72	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-557-SA6-SB-5.5-6.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-603-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 003	**Work Order #....:**	MXLMH1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	12
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.2	0.30	1.0	0
1,2,3,7,8-PeCDD	**12/28/12**	**1**	**0.22 J**	**5.8**	**0.10**	**1.0**	**0.22**
1,2,3,4,7,8-HxCDD	**12/28/12**	**1**	**0.32 J**	**5.8**	**0.082**	**0.1**	**0.032**
1,2,3,6,7,8-HxCDD	**12/28/12**	**1**	**0.53 J**	**5.8**	**0.092**	**0.1**	**0.053**
1,2,3,7,8,9-HxCDD	**12/28/12**	**1**	**0.26 Q S J**	**5.8**	**0.080**	**0.1**	**0.026**
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**13**	**5.8**	**0.11**	**0.01**	**0.13**
OCDD	**12/28/12**	**1**	**170 B**	**12**	**0.11**	**0.0003**	**0.051**
2,3,7,8-TCDF	12/28/12	1	ND	1.2	0.16	0.1	0
1,2,3,7,8-PeCDF	12/28/12	1	ND	5.8	0.073	0.03	0
2,3,4,7,8-PeCDF	12/28/12	1	ND	5.8	0.067	0.3	0
1,2,3,4,7,8-HxCDF	**12/28/12**	**1**	**0.11 J**	**5.8**	**0.055**	**0.1**	**0.011**
1,2,3,6,7,8-HxCDF	**12/28/12**	**1**	**0.15 J**	**5.8**	**0.054**	**0.1**	**0.015**
2,3,4,6,7,8-HxCDF	12/28/12	1	ND	5.8	0.060	0.1	0
1,2,3,7,8,9-HxCDF	12/28/12	1	ND	5.8	0.069	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/28/12**	**1**	**2.2 J**	**5.8**	**0.075**	**0.01**	**0.022**
1,2,3,4,7,8,9-HpCDF	12/28/12	1	ND	5.8	0.090	0.01	0
OCDF	**12/28/12**	**1**	**3.1 B J**	**12**	**0.11**	**0.0003**	**0.00093**
Total TEQ Concentration							**0.56**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	101	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	91	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	104	(23 - 140)
13C-OCDD	76	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	90	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	85	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	99	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	85	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	93	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-603-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-603-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 004	**Work Order #....:**	MXLMJ1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	8.2
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/28/12	1	ND	1.1	0.28	1.0	0
1,2,3,7,8-PeCDD	12/28/12	1	ND	5.6	0.11	1.0	0
1,2,3,4,7,8-HxCDD	12/28/12	1	ND	5.6	0.067	0.1	0
1,2,3,6,7,8-HxCDD	12/28/12	1	ND	5.6	0.076	0.1	0
1,2,3,7,8,9-HxCDD	**12/28/12**	**1**	**0.11 Q J**	**5.6**	**0.066**	**0.1**	**0.011**
1,2,3,4,6,7,8-HpCDD	**12/28/12**	**1**	**0.25 Q J**	**5.6**	**0.11**	**0.01**	**0.0025**
OCDD	**12/28/12**	**1**	**5.6 S B J**	**11**	**0.19**	**0.0003**	**0.0017**
2,3,7,8-TCDF	12/28/12	1	ND	1.1	0.18	0.1	0
1,2,3,7,8-PeCDF	12/28/12	1	ND	5.6	0.074	0.03	0
2,3,4,7,8-PeCDF	12/28/12	1	ND	5.6	0.064	0.3	0
1,2,3,4,7,8-HxCDF	12/28/12	1	ND	5.6	0.047	0.1	0
1,2,3,6,7,8-HxCDF	12/28/12	1	ND	5.6	0.048	0.1	0
2,3,4,6,7,8-HxCDF	12/28/12	1	ND	5.6	0.049	0.1	0
1,2,3,7,8,9-HxCDF	12/28/12	1	ND	5.6	0.060	0.1	0
1,2,3,4,6,7,8-HpCDF	12/28/12	1	ND	5.6	0.064	0.01	0
1,2,3,4,7,8,9-HpCDF	12/28/12	1	ND	5.6	0.084	0.01	0
OCDF	12/28/12	1	ND	11	0.15	0.0003	0
Total TEQ Concentration							**0.015**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	48	(17 - 157)
13C-2,3,7,8-TCDF	65	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-603-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-604-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 005	**Work Order #....:**	MXLMK1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	12
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.26	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.6	0.11	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.6	0.093	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.6	0.10	0.1	0
1,2,3,7,8,9-HxCDD	12/31/12	1	ND	5.6	0.091	0.1	0
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**0.88 J**	**5.6**	**0.19**	**0.01**	**0.0088**
OCDD	**12/31/12**	**1**	**7.8 B J**	**11**	**0.25**	**0.0003**	**0.0023**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	0.16	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.6	0.099	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.6	0.086	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.6	0.063	0.1	0
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.089 Q J**	**5.6**	**0.064**	**0.1**	**0.0089**
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.6	0.066	0.1	0
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.6	0.086	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**0.44 J**	**5.6**	**0.10**	**0.01**	**0.0044**
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.6	0.16	0.01	0
OCDF	**12/31/12**	**1**	**1.2 Q B J**	**11**	**0.22**	**0.0003**	**0.00036**
Total TEQ Concentration							**0.025**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	66	(23 - 140)
13C-OCDD	41	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	75	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	61	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	58	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-604-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-604-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 006	**Work Order #....:**	MXLML1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	11
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.25	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.5	0.11	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.5	0.11	0.1	0
1,2,3,6,7,8-HxCDD	12/31/12	1	ND	5.5	0.11	0.1	0
1,2,3,7,8,9-HxCDD	12/31/12	1	ND	5.5	0.10	0.1	0
1,2,3,4,6,7,8-HpCDD	12/31/12	1	ND	5.5	0.19	0.01	0
OCDD	**12/31/12**	**1**	**4.2 B J**	**11**	**0.24**	**0.0003**	**0.0013**
2,3,7,8-TCDF	12/31/12	1	ND	1.1	0.16	0.1	0
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.5	0.086	0.03	0
2,3,4,7,8-PeCDF	12/31/12	1	ND	5.5	0.070	0.3	0
1,2,3,4,7,8-HxCDF	12/31/12	1	ND	5.5	0.076	0.1	0
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.5	0.071	0.1	0
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.5	0.082	0.1	0
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.5	0.10	0.1	0
1,2,3,4,6,7,8-HpCDF	12/31/12	1	ND	5.5	0.13	0.01	0
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.5	0.20	0.01	0
OCDF	12/31/12	1	ND	11	0.25	0.0003	0
Total TEQ Concentration							**0.0013**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	54	(23 - 140)
13C-OCDD	33	(17 - 157)
13C-2,3,7,8-TCDF	67	(24 - 169)
13C-1,2,3,7,8-PeCDF	72	(24 - 185)
13C-2,3,4,7,8-PeCDF	76	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	56	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	50	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-604-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated Result.

TestAmerica Denver

Client Sample ID: SL-653-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 007	**Work Order #....:**	MXLMM1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	13
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.50	1.0	0
1,2,3,7,8-PeCDD	12/31/12	1	ND	5.7	0.29	1.0	0
1,2,3,4,7,8-HxCDD	12/31/12	1	ND	5.7	0.50	0.1	0
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**1.9 Q J**	**5.7**	**0.72**	**0.1**	**0.19**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**2.0 Q J**	**5.7**	**0.55**	**0.1**	**0.20**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**85**	**5.7**	**1.8**	**0.01**	**0.85**
OCDD	**12/31/12**	**1**	**590 B**	**11**	**1.9**	**0.0003**	**0.18**
2,3,7,8-TCDF	**12/31/12**	**1**	**0.67 Q J**	**1.1**	**0.38**	**0.1**	**0.067**
1,2,3,7,8-PeCDF	12/31/12	1	ND	5.7	0.23	0.03	0
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.58 Q J**	**5.7**	**0.22**	**0.3**	**0.17**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**0.85 J**	**5.7**	**0.29**	**0.1**	**0.085**
1,2,3,6,7,8-HxCDF	12/31/12	1	ND	5.7	0.30	0.1	0
2,3,4,6,7,8-HxCDF	12/31/12	1	ND	5.7	0.41	0.1	0
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.7	0.46	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**4.5 S J**	**5.7**	**0.80**	**0.01**	**0.045**
1,2,3,4,7,8,9-HpCDF	12/31/12	1	ND	5.7	0.68	0.01	0
OCDF	**12/31/12**	**1**	**14 Q B**	**11**	**1.8**	**0.0003**	**0.0042**
Total TEQ Concentration							**1.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	(25 - 164)
13C-1,2,3,7,8-PeCDD	58	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	72	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	44	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	25	(23 - 140)
13C-OCDD	13 *	(17 - 157)
13C-2,3,7,8-TCDF	59	(24 - 169)
13C-1,2,3,7,8-PeCDF	58	(24 - 185)
13C-2,3,4,7,8-PeCDF	55	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	57	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	56	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	58	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	32	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	32	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	77	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-653-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-654A-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 008	**Work Order #....:**	MXLMN1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	12
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	12/31/12	1	ND	1.1	0.24	1.0	0
1,2,3,7,8-PeCDD	**12/31/12**	**1**	**0.29 Q J**	**5.7**	**0.12**	**1.0**	**0.29**
1,2,3,4,7,8-HxCDD	**12/31/12**	**1**	**0.66 J**	**5.7**	**0.17**	**0.1**	**0.066**
1,2,3,6,7,8-HxCDD	**12/31/12**	**1**	**3.1 Q J**	**5.7**	**0.18**	**0.1**	**0.31**
1,2,3,7,8,9-HxCDD	**12/31/12**	**1**	**1.3 Q J**	**5.7**	**0.16**	**0.1**	**0.13**
1,2,3,4,6,7,8-HpCDD	**12/31/12**	**1**	**92**	**5.7**	**0.29**	**0.01**	**0.92**
OCDD	**12/31/12**	**1**	**920 B**	**11**	**0.42**	**0.0003**	**0.28**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.60 Q J**	**1.1**	**0.14**	**0.1**	**0.060**
1,2,3,7,8-PeCDF	**12/31/12**	**1**	**0.28 J**	**5.7**	**0.11**	**0.03**	**0.0084**
2,3,4,7,8-PeCDF	**12/31/12**	**1**	**0.83 J**	**5.7**	**0.093**	**0.3**	**0.25**
1,2,3,4,7,8-HxCDF	**12/31/12**	**1**	**0.79 J**	**5.7**	**0.083**	**0.1**	**0.079**
1,2,3,6,7,8-HxCDF	**12/31/12**	**1**	**0.73 Q J**	**5.7**	**0.082**	**0.1**	**0.073**
2,3,4,6,7,8-HxCDF	**12/31/12**	**1**	**0.18 Q J**	**5.7**	**0.087**	**0.1**	**0.018**
1,2,3,7,8,9-HxCDF	12/31/12	1	ND	5.7	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**12/31/12**	**1**	**14**	**5.7**	**0.14**	**0.01**	**0.14**
1,2,3,4,7,8,9-HpCDF	**12/31/12**	**1**	**1.4 J**	**5.7**	**0.21**	**0.01**	**0.014**
OCDF	**12/31/12**	**1**	**29 Q B**	**11**	**0.40**	**0.0003**	**0.0087**
Total TEQ Concentration							**2.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	82	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	59	(23 - 140)
13C-OCDD	37	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	87	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	56	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-654A-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-596-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 009	**Work Order #....:**	MXLMP1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	10
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.22	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.37 Q J**	**5.4**	**0.11**	**1.0**	**0.37**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**0.60 J**	**5.4**	**0.10**	**0.1**	**0.060**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**1.8 J**	**5.4**	**0.10**	**0.1**	**0.18**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**1.6 J**	**5.4**	**0.093**	**0.1**	**0.16**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**54**	**5.4**	**0.15**	**0.01**	**0.54**
OCDD	**1/2/13**	**1**	**890 B**	**11**	**0.12**	**0.0003**	**0.27**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.52 J**	**1.1**	**0.17**	**0.1**	**0.052**
1,2,3,7,8-PeCDF	**1/2/13**	**1**	**0.19 Q J**	**5.4**	**0.079**	**0.03**	**0.0057**
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.23 J**	**5.4**	**0.077**	**0.3**	**0.069**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.50 Q J**	**5.4**	**0.067**	**0.1**	**0.050**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.81 Q J**	**5.4**	**0.059**	**0.1**	**0.081**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.23 J**	**5.4**	**0.062**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.30 J**	**5.4**	**0.080**	**0.1**	**0.030**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**9.4**	**5.4**	**0.076**	**0.01**	**0.094**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**0.54 J**	**5.4**	**0.13**	**0.01**	**0.0054**
OCDF	**1/2/13**	**1**	**33 B**	**11**	**0.080**	**0.0003**	**0.0099**
Total TEQ Concentration							**2.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	73	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	74	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-596-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-596-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 010	**Work Order #....:**	MXLMQ1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	3.2
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	0.99	0.26	1.0	0
1,2,3,7,8-PeCDD	1/2/13	1	ND	5.0	0.090	1.0	0
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.0	0.058	0.1	0
1,2,3,6,7,8-HxCDD	1/2/13	1	ND	5.0	0.066	0.1	0
1,2,3,7,8,9-HxCDD	1/2/13	1	ND	5.0	0.057	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**0.55 Q J**	**5.0**	**0.086**	**0.01**	**0.0055**
OCDD	**1/2/13**	**1**	**12 B**	**9.9**	**0.075**	**0.0003**	**0.0036**
2,3,7,8-TCDF	1/2/13	1	ND	0.99	0.16	0.1	0
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.0	0.067	0.03	0
2,3,4,7,8-PeCDF	1/2/13	1	ND	5.0	0.059	0.3	0
1,2,3,4,7,8-HxCDF	1/2/13	1	ND	5.0	0.048	0.1	0
1,2,3,6,7,8-HxCDF	1/2/13	1	ND	5.0	0.050	0.1	0
2,3,4,6,7,8-HxCDF	1/2/13	1	ND	5.0	0.052	0.1	0
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.0	0.060	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**0.18 Q J**	**5.0**	**0.063**	**0.01**	**0.0018**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.0	0.091	0.01	0
OCDF	**1/2/13**	**1**	**0.30 Q B J**	**9.9**	**0.070**	**0.0003**	**0.000090**
Total TEQ Concentration							**0.011**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	77	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	68	(24 - 169)
13C-1,2,3,7,8-PeCDF	72	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-596-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-598-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 011	**Work Order #....:**	MXLMR1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	12
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.28	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**1.6 Q J**	**5.5**	**0.17**	**1.0**	**1.6**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**2.9 J**	**5.5**	**0.11**	**0.1**	**0.29**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**7.2**	**5.5**	**0.12**	**0.1**	**0.72**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**7.8 C**	**5.5**	**0.10**	**0.1**	**0.78**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**200**	**5.5**	**0.15**	**0.01**	**2.0**
OCDD	**1/2/13**	**1**	**3300 B**	**11**	**0.20**	**0.0003**	**0.99**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.76 J**	**1.1**	**0.21**	**0.1**	**0.076**
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.5	0.11	0.03	0
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.67 J**	**5.5**	**0.10**	**0.3**	**0.20**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**1.6 J C**	**5.5**	**0.072**	**0.1**	**0.16**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**3.0 Q J**	**5.5**	**0.075**	**0.1**	**0.30**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.62 J**	**5.5**	**0.078**	**0.1**	**0.062**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.087 Q J**	**5.5**	**0.088**	**0.1**	**0.0087**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**22**	**5.5**	**0.11**	**0.01**	**0.22**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**1.3 Q J**	**5.5**	**0.17**	**0.01**	**0.013**
OCDF	**1/2/13**	**1**	**61 B**	**11**	**0.094**	**0.0003**	**0.018**
Total TEQ Concentration							**7.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	73	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	74	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	68	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	90	(17 - 157)
13C-2,3,7,8-TCDF	62	(24 - 169)
13C-1,2,3,7,8-PeCDF	65	(24 - 185)
13C-2,3,4,7,8-PeCDF	67	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	64	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	59	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	64	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-598-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-598-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 012	**Work Order #....:**	MXLMT1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	4.6
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.0	0.19	1.0	0
1,2,3,7,8-PeCDD	1/2/13	1	ND	5.0	0.091	1.0	0
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.0	0.065	0.1	0
1,2,3,6,7,8-HxCDD	1/2/13	1	ND	5.0	0.071	0.1	0
1,2,3,7,8,9-HxCDD	1/2/13	1	ND	5.0	0.063	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**1.1 J**	**5.0**	**0.084**	**0.01**	**0.011**
OCDD	**1/2/13**	**1**	**23 B**	**10**	**0.089**	**0.0003**	**0.0069**
2,3,7,8-TCDF	1/2/13	1	ND	1.0	0.12	0.1	0
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.0	0.056	0.03	0
2,3,4,7,8-PeCDF	1/2/13	1	ND	5.0	0.052	0.3	0
1,2,3,4,7,8-HxCDF	1/2/13	1	ND	5.0	0.038	0.1	0
1,2,3,6,7,8-HxCDF	1/2/13	1	ND	5.0	0.039	0.1	0
2,3,4,6,7,8-HxCDF	1/2/13	1	ND	5.0	0.038	0.1	0
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.0	0.048	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**0.17 J**	**5.0**	**0.055**	**0.01**	**0.0017**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.0	0.078	0.01	0
OCDF	**1/2/13**	**1**	**0.41 B J**	**10**	**0.063**	**0.0003**	**0.00012**
Total TEQ Concentration							**0.020**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	92	(17 - 157)
13C-2,3,7,8-TCDF	68	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	75	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-598-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.

TestAmerica Denver

Client Sample ID: SL-601-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 013	**Work Order #....:**	MXLMV1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	7.6
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.23	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**1.0 Q J**	**5.3**	**0.11**	**1.0**	**1.0**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**2.6 J**	**5.3**	**0.099**	**0.1**	**0.26**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**5.0 J**	**5.3**	**0.10**	**0.1**	**0.50**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**6.3**	**5.3**	**0.092**	**0.1**	**0.63**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**180**	**5.3**	**0.13**	**0.01**	**1.8**
OCDD	**1/2/13**	**1**	**2200 B**	**11**	**0.12**	**0.0003**	**0.66**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.25 Q J**	**1.1**	**0.15**	**0.1**	**0.025**
1,2,3,7,8-PeCDF	**1/2/13**	**1**	**0.092 Q J**	**5.3**	**0.096**	**0.03**	**0.0028**
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.28 Q J**	**5.3**	**0.087**	**0.3**	**0.084**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**1.3 Q J**	**5.3**	**0.067**	**0.1**	**0.13**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**8.7 Q**	**5.3**	**0.059**	**0.1**	**0.87**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**1.2 J**	**5.3**	**0.064**	**0.1**	**0.12**
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.18 J**	**5.3**	**0.077**	**0.1**	**0.018**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**40**	**5.3**	**0.086**	**0.01**	**0.40**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**2.9 J**	**5.3**	**0.15**	**0.01**	**0.029**
OCDF	**1/2/13**	**1**	**140 B**	**11**	**0.092**	**0.0003**	**0.042**
Total TEQ Concentration							**6.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	71	(24 - 185)
13C-2,3,4,7,8-PeCDF	74	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	65	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	67	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	66	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-601-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-601-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 014	**Work Order #....:**	MXLMW1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	4.3
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.0	0.25	1.0	0
1,2,3,7,8-PeCDD	1/2/13	1	ND	5.1	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.1	0.079	0.1	0
1,2,3,6,7,8-HxCDD	1/2/13	1	ND	5.1	0.086	0.1	0
1,2,3,7,8,9-HxCDD	1/2/13	1	ND	5.1	0.076	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**1.7 J**	**5.1**	**0.10**	**0.01**	**0.017**
OCDD	**1/2/13**	**1**	**32 B**	**10**	**0.11**	**0.0003**	**0.0096**
2,3,7,8-TCDF	1/2/13	1	ND	1.0	0.14	0.1	0
1,2,3,7,8-PeCDF	1/2/13	1	ND	5.1	0.074	0.03	0
2,3,4,7,8-PeCDF	1/2/13	1	ND	5.1	0.068	0.3	0
1,2,3,4,7,8-HxCDF	1/2/13	1	ND	5.1	0.058	0.1	0
1,2,3,6,7,8-HxCDF	1/2/13	1	ND	5.1	0.057	0.1	0
2,3,4,6,7,8-HxCDF	1/2/13	1	ND	5.1	0.063	0.1	0
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.1	0.071	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**0.38 Q J**	**5.1**	**0.076**	**0.01**	**0.0038**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.1	0.11	0.01	0
OCDF	**1/2/13**	**1**	**1.8 B J**	**10**	**0.072**	**0.0003**	**0.00054**
Total TEQ Concentration							**0.031**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	75	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	87	(17 - 157)
13C-2,3,7,8-TCDF	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	69	(24 - 185)
13C-2,3,4,7,8-PeCDF	70	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	66	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	64	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-601-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-608-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 015	**Work Order #....:**	MXLMX1AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	8.3
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.31	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.60 Q J**	**5.5**	**0.17**	**1.0**	**0.60**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**1.8 J**	**5.5**	**0.19**	**0.1**	**0.18**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**4.6 J**	**5.5**	**0.19**	**0.1**	**0.46**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**5.1 C J**	**5.5**	**0.18**	**0.1**	**0.51**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**160**	**5.5**	**0.20**	**0.01**	**1.6**
OCDD	**1/2/13**	**1**	**1900 B**	**11**	**0.21**	**0.0003**	**0.57**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.70 Q J**	**1.1**	**0.21**	**0.1**	**0.070**
1,2,3,7,8-PeCDF	**1/2/13**	**1**	**0.25 J**	**5.5**	**0.12**	**0.03**	**0.0075**
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.44 Q J**	**5.5**	**0.11**	**0.3**	**0.13**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.94 Q J**	**5.5**	**0.095**	**0.1**	**0.094**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**1.2 Q J**	**5.5**	**0.085**	**0.1**	**0.12**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.53 J**	**5.5**	**0.094**	**0.1**	**0.053**
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.5	0.12	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**15**	**5.5**	**0.13**	**0.01**	**0.15**
1,2,3,4,7,8,9-HpCDF	**1/2/13**	**1**	**1.0 J**	**5.5**	**0.20**	**0.01**	**0.010**
OCDF	**1/2/13**	**1**	**32 B**	**11**	**0.11**	**0.0003**	**0.0096**
Total TEQ Concentration							**4.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	102	(17 - 157)
13C-2,3,7,8-TCDF	69	(24 - 169)
13C-1,2,3,7,8-PeCDF	72	(24 - 185)
13C-2,3,4,7,8-PeCDF	76	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	71	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	77	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-608-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-666-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 016	**Work Order #....:**	MXLM01AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	11
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.28	1.0	0
1,2,3,7,8-PeCDD	1/2/13	1	ND	5.6	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/2/13	1	ND	5.6	0.11	0.1	0
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**0.50 J**	**5.6**	**0.11**	**0.1**	**0.050**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**0.68 J**	**5.6**	**0.099**	**0.1**	**0.068**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**12**	**5.6**	**0.16**	**0.01**	**0.12**
OCDD	**1/2/13**	**1**	**190 B**	**11**	**0.10**	**0.0003**	**0.057**
2,3,7,8-TCDF	**1/2/13**	**1**	**0.72 J**	**1.1**	**0.18**	**0.1**	**0.072**
1,2,3,7,8-PeCDF	**1/2/13**	**1**	**0.17 J**	**5.6**	**0.083**	**0.03**	**0.0051**
2,3,4,7,8-PeCDF	1/2/13	1	ND	5.6	0.080	0.3	0
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.20 J**	**5.6**	**0.063**	**0.1**	**0.020**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.22 Q J**	**5.6**	**0.057**	**0.1**	**0.022**
2,3,4,6,7,8-HxCDF	1/2/13	1	ND	5.6	0.066	0.1	0
1,2,3,7,8,9-HxCDF	**1/2/13**	**1**	**0.19 J**	**5.6**	**0.078**	**0.1**	**0.019**
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**1.5 Q J**	**5.6**	**0.091**	**0.01**	**0.015**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.6	0.16	0.01	0
OCDF	**1/2/13**	**1**	**2.6 B J**	**11**	**0.083**	**0.0003**	**0.00078**
Total TEQ Concentration							**0.45**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	77	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	91	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	71	(24 - 185)
13C-2,3,4,7,8-PeCDF	72	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	69	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-666-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-667-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 017	**Work Order #....:**	MXLM11AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	9.5
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/2/13	1	ND	1.1	0.28	1.0	0
1,2,3,7,8-PeCDD	**1/2/13**	**1**	**0.71 J**	**5.7**	**0.15**	**1.0**	**0.71**
1,2,3,4,7,8-HxCDD	**1/2/13**	**1**	**1.1 J**	**5.7**	**0.12**	**0.1**	**0.11**
1,2,3,6,7,8-HxCDD	**1/2/13**	**1**	**2.0 J**	**5.7**	**0.13**	**0.1**	**0.20**
1,2,3,7,8,9-HxCDD	**1/2/13**	**1**	**2.2 J C**	**5.7**	**0.11**	**0.1**	**0.22**
1,2,3,4,6,7,8-HpCDD	**1/2/13**	**1**	**53**	**5.7**	**0.18**	**0.01**	**0.53**
OCDD	**1/2/13**	**1**	**1100 B**	**11**	**0.14**	**0.0003**	**0.33**
2,3,7,8-TCDF	**1/2/13**	**1**	**1.4 X**	**1.1**	**0.22**	**0.1**	**0.14**
1,2,3,7,8-PeCDF	**1/2/13**	**1**	**0.27 J**	**5.7**	**0.12**	**0.03**	**0.0081**
2,3,4,7,8-PeCDF	**1/2/13**	**1**	**0.33 J**	**5.7**	**0.11**	**0.3**	**0.099**
1,2,3,4,7,8-HxCDF	**1/2/13**	**1**	**0.46 J**	**5.7**	**0.079**	**0.1**	**0.046**
1,2,3,6,7,8-HxCDF	**1/2/13**	**1**	**0.50 Q J**	**5.7**	**0.069**	**0.1**	**0.050**
2,3,4,6,7,8-HxCDF	**1/2/13**	**1**	**0.21 Q J**	**5.7**	**0.077**	**0.1**	**0.021**
1,2,3,7,8,9-HxCDF	1/2/13	1	ND	5.7	0.090	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/2/13**	**1**	**4.6 Q J**	**5.7**	**0.087**	**0.01**	**0.046**
1,2,3,4,7,8,9-HpCDF	1/2/13	1	ND	5.7	0.16	0.01	0
OCDF	**1/2/13**	**1**	**7.7 B J**	**11**	**0.089**	**0.0003**	**0.0023**
Total TEQ Concentration							**2.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	96	(17 - 157)
13C-2,3,7,8-TCDF	69	(24 - 169)
13C-1,2,3,7,8-PeCDF	70	(24 - 185)
13C-2,3,4,7,8-PeCDF	72	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	65	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	66	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-667-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
X	See project narrative.

TestAmerica Denver

Client Sample ID: SL-668-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 018	**Work Order #....:**	MXLM21AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	14
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.2	0.26	1.0	0
1,2,3,7,8-PeCDD	1/3/13	1	ND	5.8	0.094	1.0	0
1,2,3,4,7,8-HxCDD	1/3/13	1	ND	5.8	0.082	0.1	0
1,2,3,6,7,8-HxCDD	1/3/13	1	ND	5.8	0.084	0.1	0
1,2,3,7,8,9-HxCDD	1/3/13	1	ND	5.8	0.077	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**1.8 J**	**5.8**	**0.087**	**0.01**	**0.018**
OCDD	**1/3/13**	**1**	**15 B**	**12**	**0.086**	**0.0003**	**0.0045**
2,3,7,8-TCDF	1/3/13	1	ND	1.2	0.16	0.1	0
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.8	0.076	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.8	0.066	0.3	0
1,2,3,4,7,8-HxCDF	1/3/13	1	ND	5.8	0.044	0.1	0
1,2,3,6,7,8-HxCDF	1/3/13	1	ND	5.8	0.038	0.1	0
2,3,4,6,7,8-HxCDF	1/3/13	1	ND	5.8	0.042	0.1	0
1,2,3,7,8,9-HxCDF	1/3/13	1	ND	5.8	0.053	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**0.51 Q J**	**5.8**	**0.065**	**0.01**	**0.0051**
1,2,3,4,7,8,9-HpCDF	1/3/13	1	ND	5.8	0.088	0.01	0
OCDF	**1/3/13**	**1**	**1.1 Q B J**	**12**	**0.10**	**0.0003**	**0.00033**
Total TEQ Concentration							**0.028**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	81	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	84	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-668-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-684-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150409 - 019	**Work Order #....:**	MXLM31AC	**Matrix.....:**	SO
Date Sampled....:	12/10/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/17/12			**Dilution Factor:**	1
Prep Batch # ....:	2352021			**Percent Moisture:**	7.2
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M1A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/3/13	1	ND	1.0	0.20	1.0	0
1,2,3,7,8-PeCDD	**1/3/13**	**1**	**0.44 Q J**	**5.2**	**0.094**	**1.0**	**0.44**
1,2,3,4,7,8-HxCDD	**1/3/13**	**1**	**0.42 Q J**	**5.2**	**0.067**	**0.1**	**0.042**
1,2,3,6,7,8-HxCDD	**1/3/13**	**1**	**1.3 J**	**5.2**	**0.070**	**0.1**	**0.13**
1,2,3,7,8,9-HxCDD	**1/3/13**	**1**	**1.3 J**	**5.2**	**0.063**	**0.1**	**0.13**
1,2,3,4,6,7,8-HpCDD	**1/3/13**	**1**	**36**	**5.2**	**0.086**	**0.01**	**0.36**
OCDD	**1/3/13**	**1**	**500 S B**	**10**	**0.11**	**0.0003**	**0.15**
2,3,7,8-TCDF	**1/3/13**	**1**	**0.16 Q J**	**1.0**	**0.15**	**0.1**	**0.016**
1,2,3,7,8-PeCDF	1/3/13	1	ND	5.2	0.056	0.03	0
2,3,4,7,8-PeCDF	1/3/13	1	ND	5.2	0.053	0.3	0
1,2,3,4,7,8-HxCDF	**1/3/13**	**1**	**0.22 Q J**	**5.2**	**0.043**	**0.1**	**0.022**
1,2,3,6,7,8-HxCDF	**1/3/13**	**1**	**0.53 Q J**	**5.2**	**0.042**	**0.1**	**0.053**
2,3,4,6,7,8-HxCDF	**1/3/13**	**1**	**0.13 Q J**	**5.2**	**0.045**	**0.1**	**0.013**
1,2,3,7,8,9-HxCDF	**1/3/13**	**1**	**0.14 J**	**5.2**	**0.049**	**0.1**	**0.014**
1,2,3,4,6,7,8-HpCDF	**1/3/13**	**1**	**5.9**	**5.2**	**0.065**	**0.01**	**0.059**
1,2,3,4,7,8,9-HpCDF	**1/3/13**	**1**	**0.28 Q J**	**5.2**	**0.095**	**0.01**	**0.0028**
OCDF	**1/3/13**	**1**	**31 B**	**10**	**0.11**	**0.0003**	**0.0093**
Total TEQ Concentration							**1.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	57	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	94	(24 - 185)
13C-2,3,4,7,8-PeCDF	96	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	79	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-684-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L170000 - 021B	**Work Order #....:**	MXL1Q1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/17/12	**Analysis Date....:**	12/28/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2352021				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.27	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.083	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.079	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.090	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.078	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.075	ng/kg
OCDD	**0.64**	**J**	**10**	**0.11**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.14	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.063	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.061	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.045	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.044	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.048	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.054	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.058	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.076	ng/kg
OCDF	**0.22**	**Q J**	**10**	**0.090**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	25 - 164
13C-1,2,3,7,8-PeCDD	83	25 - 181
13C-1,2,3,4,7,8-HxCDD	77	32 - 141
13C-1,2,3,6,7,8-HxCDD	72	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	74	23 - 140
13C-OCDD	68	17 - 157
13C-2,3,7,8-TCDF	66	24 - 169
13C-1,2,3,7,8-PeCDF	77	24 - 185
13C-2,3,4,7,8-PeCDF	77	21 - 178
13C-1,2,3,4,7,8-HxCDF	70	26 - 152
13C-1,2,3,6,7,8-HxCDF	66	26 - 123
13C-2,3,4,6,7,8-HxCDF	69	28 - 136
13C-1,2,3,7,8,9-HxCDF	76	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	65	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	72	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L170000 - 021B	**Work Order #....:**	MXL1Q1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/17/12	**Analysis Date....:**	12/28/12	**Percent Moisture:**	0.0
Prep Batch # ....:	2352021				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M1A	**Method:**	EPA-5 1613B
Analyst ID....:	Daniel (Dan) C. Gobich				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150409	**Work Order # ...:**	MXL1Q1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L170000 - 021				
Prep Date .....:	12/17/12	**Analysis Date ..:**	12/28/12		
Prep Batch # ...:	2352021				
Dilution Factor :	1				
Analyst ID.....:	Daniel (Dan) C. Gobich	**Instrument ID..:**	M1A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.3**	**ng/kg**	**112**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**102**	**ng/kg**	**102**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**104**	**ng/kg**	**104**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**109**	**ng/kg**	**109**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**102**	**ng/kg**	**102**		**(70 - 140)**
OCDD	**200**	**212**	**ng/kg**	**106**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.3**	**ng/kg**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**99.2**	**ng/kg**	**99**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**101**	**ng/kg**	**101**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**101**	**ng/kg**	**101**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**99.3**	**ng/kg**	**99**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**102**	**ng/kg**	**102**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**99.1**	**ng/kg**	**99**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**103**	**ng/kg**	**103**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**99.7**	**ng/kg**	**100**		**(78 - 138)**
OCDF	**200**	**162**	**ng/kg**	**81**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(20 - 175)
13C-1,2,3,7,8-PeCDD	81	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	75	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	70	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	76	(26 - 166)
13C-OCDD	79	(13 - 199)
13C-2,3,7,8-TCDF	66	(22 - 152)
13C-1,2,3,7,8-PeCDF	73	(21 - 192)
13C-2,3,4,7,8-PeCDF	73	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	64	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	60	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	65	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	67	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	63	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	69	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Hal150409

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-163685.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36846-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/21/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture											Total Number of containers	Special Instructions/Note:
			Preservation Code																	
SL-557-SA6-SB-0.0-0.5 (280-36846-3)	12/10/12	10:25 Pacific		Solid			X	X												, TEQs required
SL-557-SA6-SB-5.5-6.5 (280-36846-5)	12/10/12	10:45 Pacific		Solid			X	X												TEQs required
SL-603-SA6-SB-0.0-0.5 (280-36846-8)	12/10/12	08:20 Pacific		Solid			X	X												, TEQs required
SL-603-SA6-SB-4.0-5.0 (280-36846-10)	12/10/12	08:40 Pacific		Solid			X	X												TEQs required
SL-604-SA6-SB-0.0-0.5 (280-36846-13)	12/10/12	09:25 Pacific		Solid			X	X												TEQs required
SL-604-SA6-SB-3.5-4.5 (280-36846-15)	12/10/12	09:40 Pacific		Solid			X	X												TEQs required
SL-653-SA6-SB-0.0-0.5 (280-36846-18)	12/10/12	10:10 Pacific		Solid			X	X												TEQs required
SL-654A-SA6-SB-0.0-0.5 (280-36846-20)	12/10/12	08:15 Pacific		Solid			X	X												, TEQs required
SL-596-SA6-SB-0.0-0.5 (280-36846-25)	12/10/12	14:25 Pacific		Solid			X	X												TEQs required
SL-596-SA6-SB-4.0-5.0 (280-36846-27)	12/10/12	14:35 Pacific		Solid			X	X												, TEQs required
SL-598-SA6-SB-0.0-0.5 (280-36846-30)	12/10/12	13:40 Pacific		Solid			X	X												, TEQs required

Rec'd temp 4.1°C
Custody Seals intact
D.D.F. 12-15-12
Fedex # 5490 3693 3778
Rec'd 1 cooler

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
N Watts	12-14-12 1600		David D. Flo	12-15-12 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

H2L150409

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-163685.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36846-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/21/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-598-SA6-SB-4.0-5.0 (280-36846-32)	12/10/12	13:50 Pacific		Solid			X	X		TEQs required
SL-601-SA6-SB-0.0-0.5 (280-36846-35)	12/10/12	13:00 Pacific		Solid			X	X		, TEQs required
SL-601-SA6-SB-4.0-5.0 (280-36846-37)	12/10/12	13:10 Pacific		Solid			X	X		TEQs required
SL-608-SA6-SB-0.0-0.5 (280-36846-40)	12/10/12	12:25 Pacific		Solid			X	X		TEQs required
SL-666-SA6-SB-0.0-0.5 (280-36846-42)	12/10/12	12:30 Pacific		Solid			X	X		, TEQs required
SL-667-SA6-SB-0.0-0.5 (280-36846-44)	12/10/12	14:15 Pacific		Solid			X	X		, TEQs required
SL-668-SA6-SB-0.0-0.5 (280-36846-46)	12/10/12	13:10 Pacific		Solid			X	X		TEQs required
SL-684-SA6-SB-0.0-0.5 (280-36846-48)	12/10/12	14:50 Pacific		Solid			X	X		, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	12-14-12 1600		David D. Flo	12-15-12 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L150409

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken 12-15-12
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☑ 1g Other:	1G, SL-601-SA6-SB-0.0-0.5, ~~COC~~ COC LIST 1 CONTAINER, RECEIVED 2
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ 19a Other	

Quote #: 90692 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12-15-12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

28
4.0
2.8

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street, Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-121012	12/10/12 08:00	WQ	HCl	2 - 40 mL Vial	10 day																				X												
SL-557-SA6-SB-0.0-0.5	12/10/12 10:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-557-SA6-SB-0.0-0.5	12/10/12 10:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-557-SA6-SB-5.5-6.5	12/10/12 10:45	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-557-SA6-SB-5.5-6.5	12/10/12 10:45	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-557-SA6-SB-6.0	12/10/12 10:50	SO	None	3 - Encore	10 day																				X												
SL-603-SA6-SB-0.0-0.5	12/10/12 08:20	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-603-SA6-SB-0.0-0.5	12/10/12 08:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-603-SA6-SB-4.0-5.0	12/10/12 08:40	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-603-SA6-SB-4.0-5.0	12/10/12 08:40	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-603-SA6-SB-4.5	12/10/12 08:45	SO	None	3 - Encore	10 day																				X												
SL-604-SA6-SB-0.0-0.5	12/10/12 09:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-604-SA6-SB-0.0-0.5	12/10/12 09:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-604-SA6-SB-3.5-4.5	12/10/12 09:40	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-604-SA6-SB-3.5-4.5	12/10/12 09:40	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-604-SA6-SB-4.0	12/10/12 09:45	SO	None	3 - Encore	10 day																				X												
SL-653-SA6-SB-0.0-0.5	12/10/12 10:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-653-SA6-SB-0.0-0.5	12/10/12 10:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-654A-SA6-SB-0.0-0.5	12/10/12 08:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-654A-SA6-SB-0.0-0.5	12/10/12 08:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-654A-SA6-SB-2.0-3.0	12/10/12 08:50	SO	None	1 - SS-Sleeve	10 day										X																						
SL-654B-SA6-SB-0.0-0.5	12/10/12 09:05	SO	None	1 - SS-Sleeve	10 day										X																						
SL-654C-SA6-SB-0.0-0.5	12/10/12 09:30	SO	None	1 - SS-Sleeve	10 day										X																						
SL-596-SA6-SB-0.0-0.5	12/10/12 14:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-596-SA6-SB-0.0-0.5	12/10/12 14:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-596-SA6-SB-4.0-5.0	12/10/12 14:35	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-596-SA6-SB-4.0-5.0	12/10/12 14:35	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-596-SA6-SB-4.5	12/10/12 14:40	SO	None	3 - Encore	10 day																				X												
SL-598-SA6-SB-0.0-0.5	12/10/12 13:40	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-598-SA6-SB-0.0-0.5	12/10/12 13:40	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-598-SA6-SB-4.0-5.0	12/10/12 13:50	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-598-SA6-SB-4.0-5.0	12/10/12 13:50	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-598-SA6-SB-4.5	12/10/12 13:55	SO	None	3 - Encore	10 day																				X												
SL-601-SA6-SB-0.0-0.5	12/10/12 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-601-SA6-SB-0.0-0.5	12/10/12 13:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-601-SA6-SB-4.0-5.0	12/10/12 13:10	SO	None	2 - 16 oz glass	10 day	X	X					X			X											X											
SL-601-SA6-SB-4.0-5.0	12/10/12 13:10	SO	None	2 - 4 oz glass	10 day									X				X																			
SL-601-SA6-SB-4.5	12/10/12 13:15	SO	None	3 - Encore	10 day																				X												
SL-608-SA6-SB-0.0-0.5	12/10/12 12:25	SO	None	3 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-608-SA6-SB-0.0-0.5	12/10/12 12:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-666-SA6-SB-0.0-0.5	12/10/12 12:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-666-SA6-SB-0.0-0.5	12/10/12 12:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-667-SA6-SB-0.0-0.5	12/10/12 14:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-667-SA6-SB-0.0-0.5	12/10/12 14:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-668-SA6-SB-0.0-0.5	12/10/12 13:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-668-SA6-SB-0.0-0.5	12/10/12 13:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-684-SA6-SB-0.0-0.5	12/10/12 14:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-684-SA6-SB-0.0-0.5	12/10/12 14:50	SO	None	1 - 4 oz glass	10 day													X																			

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo: 794266139531

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-01
Cooler #: 1,2,3
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters [illegible]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/10/2012	1600	[illegible]	12-12-12	0930						

Page 74 of 78

COC Rev 2

[redacted]

2.2 [illegible] 12/12/12
FP

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2012
CarrierName: FedEx
AirbillNo:

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121210-02
Cooler #:
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

124053

	Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	1,4 Dioxane 8270 SIM	PAHs 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
-2	SL-542-SA6-SB-0.0-0.5	12/7/12 07:50	SO	None	2 - SS-Sleeve	10 day																												X				
-3	SL-542-SA6-SB-3.0-4.0MS	12/7/12 08:45	SO	None	6 - 16 oz glass	10 day																												X				MS/MSD
-4	SL-942-SA6-SB-3.0-4.0	12/7/12 08:55	SO	None	2 - 16 oz glass	10 day																												X				
-7	SL-545-SA6-SB-0.0-0.5	12/7/12 09:40	SO	None	2 - SS-Sleeve	10 day																												X				
-8	SL-545-SA6-SB-4.0-5.0	12/7/12 10:20	SO	None	2 - 16 oz glass	10 day																												X				
-9	SL-545-SA6-SB-9.0-10.0	12/7/12 10:30	SO	None	2 - 16 oz glass	10 day																												X				
-12	SL-547-SA6-SB-0.0-0.5	12/7/12 12:40	SO	None	2 - SS-Sleeve	10 day																												X				
-13	SL-547-SA6-SB-4.0-5.0	12/7/12 13:40	SO	None	2 - 16 oz glass	10 day																												X				
-14	SL-547-SA6-SB-9.0-10.0	12/7/12 13:50	SO	None	2 - 16 oz glass	10 day																												X				

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	10/10/2012	1200	[illegible]	12-12-12	93-	[illegible]	12/10/12	1230			

COC Rev 2

CDM: 20121210-02, Page 1 of 1

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36846-2

Login Number: 36846

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 13, 2012 2:36 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36846, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the thirty-seven samples received at the laboratory on 12/12/12.

The samples were received in acceptable condition at temperatures of 2.8, 4.0, 2.8 and 2.2ºC.

Receipt Discrepancies:
1.) Due to a transit issue, FedEx was unable to deliver the samples to the lab on Tuesday as scheduled. Due of this delay, the Encore volume expired in transit for samples SL-557-SA6-SB-6.0 (280-36846-6), SL-603-SA6-SB-4.5 (280-36846-11) and SL-604-SA6-SB-4.0 (280-36846-16). The client was notified and instructed the laboratory to proceed with the requested analyses.

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized. Prior to homogenization, sample volume required for the volatile analyses has been logged as one distinct sample, while the volume requiring homogenization has been logged with the same sample ID as a second laboratory sample.
2.) The percent moisture analysis will be performed on the homogenized sample volume, per project requirements. The non-homogenized samples have been logged with a moisture analysis (placed on hold) and data will be uploaded from the homogenized moisture results.
3.) Samples requesting only TPH-GRO 8015B and/or VOCs 8260B were submitted with encore volume only. The client indicated that the percent moisture result should be obtained from the sample interval surrounding the encore sample. For example, moisture data for sample SL-573-SA5B-SB-4.5 should be uploaded from sample SL-573-SA5B-SB-4.0-5.0.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Canton laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36846-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [089496]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36889-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36889-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/26/2012 10:28:17 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 6
Sample Summary 7
Client Sample Results 8
QC Sample Results 9
QC Association 10
Chronicle 11
Chain of Custody 12
Receipt Checklists 13

Job ID: 280-36889-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36889-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Two soil samples were received under Chain of Custody on December 12, 2012. The samples were received in good condition at a temperature of 4.6°C.

The 8315 Formaldehyde analysis presented in this report was performed at TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, 615-726-0177.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36889-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No other anomalies were encountered during sample receipt.

HPLC / Formaldehyde - SW846 Method 8315A
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

A low level of Formaldehyde was detected in the method blank associated with prep batch 490-44390. The value should be considered an estimate, and has been flagged “J”. Because the concentration in the method blank was not present at a level greater than one half the reporting limit, corrective action was deemed unnecessary. Usability of the sample data is not compromised.

No other anomalies were observed.

General Chemistry - Various Parameters
The soil samples were homogenized per the coning and quartering process; however, the samples contained rocks and/or vegetation that were removed and not extracted.

No anomalies were observed.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36889-5

No Detections

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-6

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Method	Method Description	Protocol	Laboratory
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Solid	12/11/12 08:55	12/12/12 09:30
280-36889-6	SL-948-SA6-SB-0.0-0.5	Solid	12/11/12 09:10	12/12/12 09:30

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Method: 8315A - Carbonyl Compounds by HPLC

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS — **Lab Sample ID: 280-36889-5**
Date Collected: 12/11/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	770	ug/Kg	☼	12/17/12 14:13	12/20/12 06:10	1

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36889-6**
Date Collected: 12/11/12 09:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		1900	780	ug/Kg	☼	12/17/12 14:13	12/20/12 07:27	1

General Chemistry

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS — **Lab Sample ID: 280-36889-5**
Date Collected: 12/11/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12**		0.10	0.10	%			12/14/12 11:06	1

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — **Lab Sample ID: 280-36889-6**
Date Collected: 12/11/12 09:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12**		0.10	0.10	%			12/14/12 11:06	1

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-44390/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	697	J	1700	690	ug/Kg		12/17/12 14:13	12/19/12 23:45	1

Lab Sample ID: LCS 490-44390/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Formaldehyde			2000	2730		ug/Kg		137	44 - 150		

Lab Sample ID: 280-36889-5 MS — **Client Sample ID: SL-548-SA6-SB-0.0-0.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Formaldehyde	ND		2250	2430		ug/Kg	☼	108	21 - 153		

Lab Sample ID: 280-36889-5 MSD — **Client Sample ID: SL-548-SA6-SB-0.0-0.5MS**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45245 — **Prep Batch: 44390**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Formaldehyde	ND		2220	2890		ug/Kg	☼	130	21 - 153	17	39

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

HPLC/IC

Prep Batch: 44390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A Prep	
280-36889-5 MS	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A Prep	
280-36889-5 MSD	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A Prep	
280-36889-6	SL-948-SA6-SB-0.0-0.5	Total/NA	Solid	8315A Prep	
LCS 490-44390/2-A	Lab Control Sample	Total/NA	Solid	8315A Prep	
MB 490-44390/1-A	Method Blank	Total/NA	Solid	8315A Prep	

Analysis Batch: 45245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A	44390
280-36889-5 MS	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A	44390
280-36889-5 MSD	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	8315A	44390
280-36889-6	SL-948-SA6-SB-0.0-0.5	Total/NA	Solid	8315A	44390
LCS 490-44390/2-A	Lab Control Sample	Total/NA	Solid	8315A	44390
MB 490-44390/1-A	Method Blank	Total/NA	Solid	8315A	44390

General Chemistry

Leach Batch: 152135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	Increment, Prep	
280-36889-6	SL-948-SA6-SB-0.0-0.5	Total/NA	Solid	Increment, Prep	

Analysis Batch: 152247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Total/NA	Solid	Moisture	152135
280-36889-6	SL-948-SA6-SB-0.0-0.5	Total/NA	Solid	Moisture	152135

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-1

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36889-5

Date Collected: 12/11/12 08:55 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.06 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 06:10	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	152135	12/13/12 17:14	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152247	12/14/12 11:06	AFB	TAL DEN

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-6

Date Collected: 12/11/12 09:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315A Prep			5.04 g	1 mL	44390	12/17/12 14:13	RH	TAL NSH
Total/NA	Analysis	8315A		1			45245	12/20/12 07:27	HT	TAL NSH
Total/NA	Leach	Increment, Prep				1.0 mL	152135	12/13/12 17:14	JS	TAL DEN
Total/NA	Analysis	Moisture		1			152247	12/14/12 11:06	AFB	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

SSFL Phase 3 Chain of Custody

4.6 12/12/12 FP

CDM Smith

DateShipped: 12/11/2012
CarrierName: FedEx
AirbillNo: 794276213101

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121211-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water) Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-512-SA6-SB-0.0-0.5	12/11/12 07:50	SO	None	1 - SS-Sleeve	10 day								X																							
SL-599-SA6-SB-0.0-0.5MS	12/11/12 07:50	SO	None	3 - SS-Sleeve	10 day								X																							MS/MSD
SL-999-SA6-SB-0.0-0.5	12/11/12 08:00	SO	None	1 - SS-Sleeve	10 day								X																							
SL-599-SA6-SB-4.0-5.0	12/11/12 08:20	SO	None	1 - 4 oz glass	10 day								X																							
SL-548-SA6-SB-0.0-0.5MS	12/11/12 08:55	SO	None	2 - SS-Sleeve	10 day								X																		X					MS/MSD
SL-948-SA6-SB-0.0-0.5	12/11/12 09:10	SO	None	1 - SS-Sleeve	10 day								X																		X					
SL-555-SA6-SB-0.0-0.5	12/11/12 10:25	SO	None	1 - SS-Sleeve	10 day								X																							
SL-597-SA6-SB-3.5-4.5	12/11/12 09:20	SO	None	1 - 4 oz glass	10 day								X																							
SL-605-SA6-SB-4.0-5.0	12/11/12 11:00	SO	None	1 - 4 oz glass	10 day								X																							
SL-609-SA6-SB-2.0-3.0	12/11/12 09:40	SO	None	1 - 4 oz glass	10 day								X																							
SL-610-SA6-SB-3.0-4.0	12/11/12 10:20	SO	None	1 - 4 oz glass	10 day								X																							
SL-556-SA6-SB-0.0-0.5	12/11/12 12:40	SO	None	1 - SS-Sleeve	10 day								X																							
SL-594-SA6-SB-0.0-0.5	12/11/12 14:20	SO	None	1 - SS-Sleeve	10 day								X																							
SL-595-SA6-SB-0.0-0.5	12/11/12 13:10	SO	None	1 - SS-Sleeve	10 day								X																							
SL-595-SA6-SB-2.0-3.0	12/11/12 13:40	SO	None	1 - 4 oz glass	10 day								X																							
SL-593-SA6-SB-0.0-0.5	12/11/12 15:00	SO	None	1 - SS-Sleeve	10 day								X																							

Special Instructions:

Sampler: Mark Peters, John Halbert

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/11/12	1600	[illegible]	12/12/12	0930						

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36889-1

Login Number: 36889

List Source: TestAmerica Denver

List Number: 1

Creator: Eichelberger, Elizabeth M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36889-1

Login Number: 36889
List Number: 1
Creator: Huckaba, Jimmy

List Source: TestAmerica Nashville
List Creation: 12/15/12 10:52 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 13, 2012 3:21 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36889, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the sixteen soil samples received at the laboratory on 12/12/12.

The samples were received in acceptable condition at a temperature of 4.6ºC.

Receipt Discrepancies: None

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36889-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [089505]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36889-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36889-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/16/2013 3:09:12 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 11
Sample Summary 12
Chronicle 13
Subcontract Data 17
Chain of Custody 73
Receipt Checklists 74

Job ID: 280-36889-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36889-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Sixteen soil samples were received under Chain of Custody on December 12, 2012. The samples were received in good condition at a temperature of 4.6°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36889-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
*	Surrogate recovery is outside stated control limits.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
a	Spiked analyte recovery is outside stated control limits.
X	See project narrative.
p	Relative percent difference (RPD) is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-512-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	9.5		1.1	0.13	1	9.5	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDD	10		1.1	0.18	1	10	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.41	Q J	5.3	0.080	0.5	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.41	J	5.3	0.086	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.4	J	5.3	0.088	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.2	B J	5.3	0.082	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	33	B	5.3	0.17	0.01	0.33	ng/kg	1	☼	1613B	Total
OCDD	320	B	11	0.090	0.001	0.32	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.95	B J	1.1	0.15	0.1	0.095	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.42	Q J	5.3	0.084	0.05	0.021	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.66	J	5.3	0.078	0.5	0.33	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.7	J	5.3	0.061	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.79	Q B J	5.3	0.059	0.1	0.079	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.42	B J	5.3	0.065	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.8	B	5.3	0.090	0.01	0.068	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.75	Q B J	5.3	0.11	0.01	0.0075	ng/kg	1	☼	1613B	Total
OCDF	10	B J	11	0.046	0.001	0.010	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-599-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36889-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	2.2		1.1	0.15	1	2.2	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	9.3		5.7	0.12	0.5	4.7	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	18		5.7	0.14	0.1	1.8	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	73		5.7	0.14	0.1	7.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	46	C B	5.7	0.13	0.1	4.6	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1800	B	5.7	0.26	0.01	18	ng/kg	1	☼	1613B	Total
OCDD	20000	B E	11	0.25	0.001	20	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	2.4	B	1.1	0.25	0.1	0.24	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	1.9	J	5.7	0.13	0.05	0.095	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	2.0	J	5.7	0.13	0.5	1.0	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	11	Q	5.7	0.059	0.1	1.1	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	21	Q B	5.7	0.057	0.1	2.1	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	7.8	B	5.7	0.062	0.1	0.78	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.70	Q J	5.7	0.083	0.1	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	260	B	5.7	0.13	0.01	2.6	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	22	B	5.7	0.25	0.01	0.22	ng/kg	1	☼	1613B	Total
OCDF	230	B	11	0.12	0.001	0.23	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-999-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.3	Q	1.1	0.12	1	1.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	5.3	Q J	5.3	0.15	0.5	2.7	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	10		5.3	0.14	0.1	1.0	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	43		5.3	0.15	0.1	4.3	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	27	C B	5.3	0.13	0.1	2.7	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1000	B	5.3	0.29	0.01	10	ng/kg	1	☼	1613B	Total
OCDD	12000	B E	11	0.30	0.001	12	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	2.2	B X	1.1	0.13	0.1	0.22	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	1.5	J	5.3	0.13	0.05	0.075	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.5	J	5.3	0.11	0.5	0.75	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-999-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36889-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	6.7	Q	5.3	0.066	0.1	0.67	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	11	Q B	5.3	0.064	0.1	1.1	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	4.1	B J	5.3	0.064	0.1	0.41	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.46	Q J	5.3	0.076	0.1	0.046	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	140	B	5.3	0.10	0.01	1.4	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	12	B	5.3	0.14	0.01	0.12	ng/kg	1	☼	1613B	Total
OCDF	260	B	11	0.069	0.001	0.26	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-599-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36889-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.11	Q J	5.0	0.028	0.5	0.055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.13	Q J	5.0	0.049	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.75	J	5.0	0.053	0.1	0.075	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.57	B J	5.0	0.048	0.1	0.057	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	28	B	5.0	0.088	0.01	0.28	ng/kg	1	☼	1613B	Total
OCDD	430	B	9.9	0.10	0.001	0.43	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.031	Q B J	0.99	0.026	0.1	0.0031	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.17	J	5.0	0.037	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.24	Q B J	5.0	0.034	0.1	0.024	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.14	B J	5.0	0.031	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.2	B J	5.0	0.048	0.01	0.042	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.53	Q B J	5.0	0.094	0.01	0.0053	ng/kg	1	☼	1613B	Total
OCDF	5.6	B J	9.9	0.030	0.001	0.0056	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36889-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.035	J	1.1	0.026	1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.17	Q J	5.4	0.047	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.25	Q J	5.4	0.083	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	10		5.4	0.086	0.1	1.0	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.89	Q B J	5.4	0.079	0.1	0.089	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	200	B	5.4	0.15	0.01	2.0	ng/kg	1	☼	1613B	Total
OCDD	5400	B E	11	0.20	0.001	5.4	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.23	B J	1.1	0.035	0.1	0.023	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.17	Q J	5.4	0.046	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.4	Q J	5.4	0.044	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	2.0	Q B J	5.4	0.045	0.1	0.20	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.35	B J	5.4	0.047	0.1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	28	B	5.4	0.068	0.01	0.28	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	3.1	B J	5.4	0.099	0.01	0.031	ng/kg	1	☼	1613B	Total
OCDF	18	B	11	0.032	0.001	0.018	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.13	Q J	5.4	0.043	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.16	Q J	5.4	0.060	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.89	J	5.4	0.063	0.1	0.089	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.43	B J	5.4	0.058	0.1	0.043	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	30	B	5.4	0.096	0.01	0.30	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-948-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36889-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	540	B	11	0.12	0.001	0.54	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.19	Q B J	1.1	0.037	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.063	Q J	5.4	0.035	0.05	0.0032	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.16	J	5.4	0.034	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.30	Q J	5.4	0.042	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.28	Q B J	5.4	0.040	0.1	0.028	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.088	Q B J	5.4	0.043	0.1	0.0088	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.5	Q B J	5.4	0.075	0.01	0.035	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.42	B J	5.4	0.095	0.01	0.0042	ng/kg	1	☼	1613B	Total
OCDF	6.0	B J	11	0.036	0.001	0.0060	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-555-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.032	Q J	1.1	0.027	1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.15	Q J	5.7	0.023	0.5	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.14	Q J	5.7	0.047	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.34	J	5.7	0.051	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.51	B J	5.7	0.046	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	5.6	B J	5.7	0.046	0.01	0.056	ng/kg	1	☼	1613B	Total
OCDD	81	B	11	0.054	0.001	0.081	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.076	B Q J	1.1	0.022	0.1	0.0076	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.057	Q J	5.7	0.022	0.05	0.0028	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.053	Q J	5.7	0.022	0.5	0.026	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.051	Q B J	5.7	0.024	0.1	0.0051	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.073	Q B J	5.7	0.025	0.1	0.0073	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.14	J	5.7	0.031	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.72	Q B J	5.7	0.022	0.01	0.0072	ng/kg	1	☼	1613B	Total
OCDF	1.5	B J	11	0.020	0.001	0.0015	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-597-SA6-SB-3.5-4.5 — Lab Sample ID: 280-36889-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.060	Q J	1.0	0.036	1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.52	J	5.2	0.045	0.5	0.26	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.4	J	5.2	0.27	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.5	J	5.2	0.65	0.1	0.45	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	13	B	5.2	0.36	0.1	1.3	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	98	B	5.2	0.13	0.01	0.98	ng/kg	1	☼	1613B	Total
OCDD	1200	B	10	0.14	0.001	1.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.99	Q B J	1.0	0.050	0.1	0.099	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.18	Q J	5.2	0.030	0.05	0.0090	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.25	Q J	5.2	0.027	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.3	J	5.2	0.24	0.1	0.13	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.47	B J	5.2	0.030	0.1	0.047	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.071	Q J	5.2	0.035	0.1	0.0071	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	14	Q B	5.2	1.0	0.01	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.6	B J	5.2	0.041	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDF	37	B	10	0.040	0.001	0.037	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-605-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36889-9

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-605-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36889-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.22	Q B J	6.0	0.065	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.3	B J	6.0	0.068	0.01	0.023	ng/kg	1	☼	1613B	Total
OCDD	30	B	12	0.056	0.001	0.030	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.37	Q B J	1.2	0.032	0.1	0.037	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.057	Q J	6.0	0.028	0.5	0.029	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.036	Q B J	6.0	0.026	0.1	0.0036	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.51	Q B J	6.0	0.075	0.01	0.0051	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.095	Q B J	6.0	0.038	0.01	0.00095	ng/kg	1	☼	1613B	Total
OCDF	1.3	B J	12	0.036	0.001	0.0013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-609-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36889-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.087	Q J	5.1	0.023	0.5	0.043	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.62	Q B J	5.1	0.13	0.1	0.062	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	5.6	B	5.1	0.063	0.01	0.056	ng/kg	1	☼	1613B	Total
OCDD	56	B	10	0.047	0.001	0.056	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.12	B J	1.0	0.023	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.038	Q J	5.1	0.020	0.05	0.0019	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.076	J	5.1	0.019	0.5	0.038	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.37	Q B J	5.1	0.40	0.1	0.037	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.046	Q B J	5.1	0.019	0.1	0.0046	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.8	Q B J	5.1	0.77	0.01	0.038	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.14	Q B J	5.1	0.030	0.01	0.0014	ng/kg	1	☼	1613B	Total
OCDF	5.2	B J	10	0.027	0.001	0.0052	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-610-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36889-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.13	J	5.0	0.049	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.14	B J	5.0	0.041	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.1	B J	5.0	0.055	0.01	0.021	ng/kg	1	☼	1613B	Total
OCDD	24	B	10	0.049	0.001	0.024	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.022	Q B J	1.0	0.021	0.1	0.0022	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.043	Q J	5.0	0.022	0.1	0.0043	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.037	Q B J	5.0	0.018	0.1	0.0037	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.52	Q B J	5.0	0.037	0.01	0.0052	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.11	B J	5.0	0.031	0.01	0.0011	ng/kg	1	☼	1613B	Total
OCDF	1.0	Q B J	10	0.024	0.001	0.0010	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-556-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.59	Q J	5.5	0.050	0.5	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.4	J	5.5	0.092	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.2	J	5.5	0.11	0.1	0.42	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	4.1	B J	5.5	0.096	0.1	0.41	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	180	B	5.5	0.18	0.01	1.8	ng/kg	1	☼	1613B	Total
OCDD	3200	B	11	0.17	0.001	3.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.24	Q B J	1.1	0.035	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.20	Q J	5.5	0.051	0.05	0.010	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.30	Q J	5.5	0.046	0.5	0.15	ng/kg	1	☼	1613B	Total

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-556-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36889-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	1.4	J	5.5	0.059	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.85	B J	5.5	0.068	0.1	0.085	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.41	Q B J	5.5	0.041	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.13	Q J	5.5	0.049	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	11	B	5.5	0.10	0.01	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.4	B J	5.5	0.062	0.01	0.014	ng/kg	1	☼	1613B	Total
OCDF	28	B	11	0.052	0.001	0.028	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-594-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.091	Q J	1.1	0.044	1	0.091	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.2	Q J	5.3	0.076	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.8	J	5.3	0.079	0.1	0.28	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	7.2		5.3	0.084	0.1	0.72	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	5.7	B	5.3	0.076	0.1	0.57	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	230	B	5.3	0.25	0.01	2.3	ng/kg	1	☼	1613B	Total
OCDD	2600	B	11	0.14	0.001	2.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.38	Q B J	1.1	0.048	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.22	Q J	5.3	0.065	0.05	0.011	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.28	J	5.3	0.057	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.2	J	5.3	0.046	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.1	Q B J	5.3	0.050	0.1	0.11	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.56	Q B J	5.3	0.049	0.1	0.056	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	40	Q B	5.3	0.079	0.01	0.40	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.8	B J	5.3	0.094	0.01	0.018	ng/kg	1	☼	1613B	Total
OCDF	180	B	11	0.10	0.001	0.18	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-595-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-14

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.16	Q J	1.2	0.065	1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.4	J	5.8	0.071	0.5	0.70	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.5	J	5.8	0.25	0.1	0.25	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	5.9		5.8	0.69	0.1	0.59	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	28	B	5.8	0.35	0.1	2.8	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	160	B	5.8	0.17	0.01	1.6	ng/kg	1	☼	1613B	Total
OCDD	2500	B	12	0.17	0.001	2.5	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.96	B J	1.2	0.14	0.1	0.096	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.47	Q J	5.8	0.060	0.05	0.024	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.75	J	5.8	0.055	0.5	0.38	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.3	J	5.8	0.19	0.1	0.23	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.6	Q B J	5.8	0.82	0.1	0.16	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.57	Q B J	5.8	0.041	0.1	0.057	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.28	Q J	5.8	0.047	0.1	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	27	Q B	5.8	1.6	0.01	0.27	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.1	B J	5.8	0.069	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDF	52	B	12	0.082	0.001	0.052	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-595-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36889-15

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-595-SA6-SB-2.0-3.0 (Continued) — Lab Sample ID: 280-36889-15

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.22	J	5.2	0.032	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.26	J	5.2	0.057	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.73	J	5.2	0.088	0.1	0.073	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	B J	5.2	0.065	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	17	B	5.2	0.058	0.01	0.17	ng/kg	1	☼	1613B	Total
OCDD	290	B	10	0.073	0.001	0.29	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.14	Q B J	1.0	0.025	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.094	Q J	5.2	0.026	0.05	0.0047	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.15	J	5.2	0.023	0.5	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.21	J	5.2	0.031	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.15	Q B J	5.2	0.050	0.1	0.015	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.088	Q B J	5.2	0.020	0.1	0.0088	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.057	Q J	5.2	0.022	0.1	0.0057	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.7	Q B J	5.2	0.070	0.01	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.13	Q B J	5.2	0.031	0.01	0.0013	ng/kg	1	☼	1613B	Total
OCDF	5.8	B J	10	0.037	0.001	0.0058	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-593-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.68	J	5.5	0.048	0.5	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	1.3	J	5.5	0.14	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	3.2	Q J	5.5	0.21	0.1	0.32	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	7.2	B	5.5	0.16	0.1	0.72	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	90	B	5.5	0.13	0.01	0.90	ng/kg	1	☼	1613B	Total
OCDD	1200	B	11	0.11	0.001	1.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.13	Q B J	1.1	0.031	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.17	Q J	5.5	0.037	0.05	0.0085	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.16	Q J	5.5	0.034	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.0	C J	5.5	0.089	0.1	0.10	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.39	Q B J	5.5	0.14	0.1	0.039	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	Q B J	5.5	0.034	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.18	Q J	5.5	0.040	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	17	B	5.5	0.20	0.01	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.0	B J	5.5	0.055	0.01	0.010	ng/kg	1	☼	1613B	Total
OCDF	47	B	11	0.062	0.001	0.047	ng/kg	1	☼	1613B	Total

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36889-1	SL-512-SA6-SB-0.0-0.5	Solid	12/11/12 07:50	12/12/12 09:30
280-36889-2	SL-599-SA6-SB-0.0-0.5MS	Solid	12/11/12 07:50	12/12/12 09:30
280-36889-3	SL-999-SA6-SB-0.0-0.5	Solid	12/11/12 08:00	12/12/12 09:30
280-36889-4	SL-599-SA6-SB-4.0-5.0	Solid	12/11/12 08:20	12/12/12 09:30
280-36889-5	SL-548-SA6-SB-0.0-0.5MS	Solid	12/11/12 08:55	12/12/12 09:30
280-36889-6	SL-948-SA6-SB-0.0-0.5	Solid	12/11/12 09:10	12/12/12 09:30
280-36889-7	SL-555-SA6-SB-0.0-0.5	Solid	12/11/12 10:25	12/12/12 09:30
280-36889-8	SL-597-SA6-SB-3.5-4.5	Solid	12/11/12 09:20	12/12/12 09:30
280-36889-9	SL-605-SA6-SB-4.0-5.0	Solid	12/11/12 11:00	12/12/12 09:30
280-36889-10	SL-609-SA6-SB-2.0-3.0	Solid	12/11/12 09:40	12/12/12 09:30
280-36889-11	SL-610-SA6-SB-3.0-4.0	Solid	12/11/12 10:20	12/12/12 09:30
280-36889-12	SL-556-SA6-SB-0.0-0.5	Solid	12/11/12 12:40	12/12/12 09:30
280-36889-13	SL-594-SA6-SB-0.0-0.5	Solid	12/11/12 14:20	12/12/12 09:30
280-36889-14	SL-595-SA6-SB-0.0-0.5	Solid	12/11/12 13:10	12/12/12 09:30
280-36889-15	SL-595-SA6-SB-2.0-3.0	Solid	12/11/12 13:40	12/12/12 09:30
280-36889-16	SL-593-SA6-SB-0.0-0.5	Solid	12/11/12 15:00	12/12/12 09:30

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-512-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-1
Date Collected: 12/11/12 07:50
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 05:57	LKM	TAL KNX
Total	Analysis	1613B		1			2354023	01/09/13 12:11	KLW	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2353021	12/18/12 09:44	TN	TAL KNX

Client Sample ID: SL-599-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-36889-2
Date Collected: 12/11/12 07:50
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.6 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 06:58	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:45	TN	TAL KNX

Client Sample ID: SL-999-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-3
Date Collected: 12/11/12 08:00
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 08:00	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:45	TN	TAL KNX

Client Sample ID: SL-599-SA6-SB-4.0-5.0

Lab Sample ID: 280-36889-4
Date Collected: 12/11/12 08:20
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 09:02	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:45	TN	TAL KNX

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-36889-5
Date Collected: 12/11/12 08:55
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 10:03	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:45	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-948-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-6

Date Collected: 12/11/12 09:10 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/04/13 11:05	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:46	TN	TAL KNX

Client Sample ID: SL-555-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36889-7

Date Collected: 12/11/12 10:25 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 92.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.5 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/07/13 16:46	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:46	TN	TAL KNX

Client Sample ID: SL-597-SA6-SB-3.5-4.5 — Lab Sample ID: 280-36889-8

Date Collected: 12/11/12 09:20 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 95.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/07/13 17:48	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:46	TN	TAL KNX

Client Sample ID: SL-605-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36889-9

Date Collected: 12/11/12 11:00 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.5 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/07/13 18:50	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:46	TN	TAL KNX

Client Sample ID: SL-609-SA6-SB-2.0-3.0 — Lab Sample ID: 280-36889-10

Date Collected: 12/11/12 09:40 — **Matrix: Solid**
Date Received: 12/12/12 09:30 — **Percent Solids: 94.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/07/13 19:52	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:47	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-610-SA6-SB-3.0-4.0

Lab Sample ID: 280-36889-11
Date Collected: 12/11/12 10:20
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 01:07	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:47	TN	TAL KNX

Client Sample ID: SL-556-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-12
Date Collected: 12/11/12 12:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.5 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 02:07	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:47	TN	TAL KNX

Client Sample ID: SL-594-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-13
Date Collected: 12/11/12 14:20
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 03:08	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:48	TN	TAL KNX

Client Sample ID: SL-595-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-14
Date Collected: 12/11/12 13:10
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 04:10	LKM	TAL KNX
Total	Analysis	1613B		1			2354023	01/09/13 14:46	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:48	TN	TAL KNX

Client Sample ID: SL-595-SA6-SB-2.0-3.0

Lab Sample ID: 280-36889-15
Date Collected: 12/11/12 13:40
Matrix: Solid
Date Received: 12/12/12 09:30
Percent Solids: 94.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 05:11	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:50	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36889-2

Client Sample ID: SL-593-SA6-SB-0.0-0.5

Lab Sample ID: 280-36889-16

Date Collected: 12/11/12 15:00

Matrix: Solid

Date Received: 12/12/12 09:30

Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	2354023_P	12/19/12 11:00		TAL KNX
Total	Analysis	1613B		1			2354023	01/08/13 06:13	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2353021	12/18/12 09:50	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L150408 Analytical Report 1

Sample Receipt Documentation 52

Total Number of Pages 55

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36889-2

CDM - SSFL Area IV

Lot #: H2L150408

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 11, 2013

ANALYTICAL METHODS SUMMARY

H2L150408

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L150408

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXLLW	001	SL-512-SA6-SB-0.0-0.5	12/11/12	07:50
MXLLX	002	SL-599-SA6-SB-0.0-0.5MS	12/11/12	07:50
MXLL0	003	SL-999-SA6-SB-0.0-0.5	12/11/12	08:00
MXLL1	004	SL-599-SA6-SB-4.0-5.0	12/11/12	08:20
MXLL2	005	SL-548-SA6-SB-0.0-0.5MS	12/11/12	08:55
MXLL3	006	SL-948-SA6-SB-0.0-0.5	12/11/12	09:10
MXLL4	007	SL-555-SA6-SB-0.0-0.5	12/11/12	10:25
MXLL5	008	SL-597-SA6-SB-3.5-4.5	12/11/12	09:20
MXLL6	009	SL-605-SA6-SB-4.0-5.0	12/11/12	11:00
MXLL7	010	SL-609-SA6-SB-2.0-3.0	12/11/12	09:40
MXLL8	011	SL-610-SA6-SB-3.0-4.0	12/11/12	10:20
MXLL9	012	SL-556-SA6-SB-0.0-0.5	12/11/12	12:40
MXLMA	013	SL-594-SA6-SB-0.0-0.5	12/11/12	14:20
MXLMC	014	SL-595-SA6-SB-0.0-0.5	12/11/12	13:10
MXLMD	015	SL-595-SA6-SB-2.0-3.0	12/11/12	13:40
MXLME	016	SL-593-SA6-SB-0.0-0.5	12/11/12	15:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L150408

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

For samples SL-597-SA6-SB-3.5-4.5, SL-609-SA6-SB-2.0-3.0, SL-595-SA6-SB-0.0-0.5, SL-593-SA6-SB-0.0-0.5 and the method blank, the recoveries of several internal standards were below the lower acceptance criteria. The minimum required signal-to-noise ratio was present, and the target estimated detection limit for associated analytes was met. The results are reported in accordance with the standard operating procedure. As indicated by the referenced method, isotope dilution techniques produce results that are independent of internal standard recovery.

The matrix spike and duplicate on samples SL-599-SA6-SB-0.0-0.5MS and SL-548-SA6-SB-0.0-0.5MS exhibited several native analytes outside the established QC limits. The laboratory control sample was within limits indicating a lack of sample homogeneity.

Samples SL-599-SA6-SB-0.0-0.5MS (original, MS, MSD), SL-999-SA6-SB-0.0-0.5 and SL-548-SA6-SB-0.0-0.5MS exhibited native OCDD above the upper calibration range. The method does not require further action be taken; therefore, the results were reported as is with an "E" qualifier.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column. The lower of the 2378-TCDF results are reported for each sample. The 2378-TCDF was reported from the primary Rtx-5 column for sample SL-999-SA6-SB-0.0-0.5. This column is not isomer specific for this 2378-TCDF. All results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X".

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at

PROJECT NARRATIVE
H2L150408

40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).

PROJECT NARRATIVE
H2L150408

- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

PROJECT NARRATIVE
H2L150408

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-512-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 001	**Work Order #....:**	MXLLW1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	4.5
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/4/13**	**1**	**9.5**	**1.1**	**0.13**	**1.0**	**9.5**
2,3,7,8-TCDD	**1/9/13**	**1**	**10**	**1.1**	**0.18**	**1.0**	**10.0**
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**0.41 Q J**	**5.3**	**0.080**	**1.0**	**0.41**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.41 J**	**5.3**	**0.086**	**0.1**	**0.041**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**1.4 J**	**5.3**	**0.088**	**0.1**	**0.14**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**1.2 B J**	**5.3**	**0.082**	**0.1**	**0.12**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**33 B**	**5.3**	**0.17**	**0.01**	**0.33**
OCDD	**1/4/13**	**1**	**320 B**	**11**	**0.090**	**0.0003**	**0.096**
2,3,7,8-TCDF	**1/9/13**	**1**	**0.95 B J**	**1.1**	**0.15**	**0.1**	**0.095**
1,2,3,7,8-PeCDF	**1/4/13**	**1**	**0.42 Q J**	**5.3**	**0.084**	**0.03**	**0.013**
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**0.66 J**	**5.3**	**0.078**	**0.3**	**0.20**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**1.7 J**	**5.3**	**0.061**	**0.1**	**0.17**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**0.79 Q B J**	**5.3**	**0.059**	**0.1**	**0.079**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**0.42 B J**	**5.3**	**0.065**	**0.1**	**0.042**
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.3	0.075	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**6.8 B**	**5.3**	**0.090**	**0.01**	**0.068**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**0.75 Q B J**	**5.3**	**0.11**	**0.01**	**0.0075**
OCDF	**1/4/13**	**1**	**10 B J**	**11**	**0.046**	**0.0003**	**0.0030**
Total TEQ Concentration							**21**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	74	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	65	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	72	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	83	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	62	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	70	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-512-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-599-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 002	**Work Order #....:**	MXLLX1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	8.7
Initial Wgt/Vol :	9.6 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/4/13**	**1**	**2.2**	**1.1**	**0.15**	**1.0**	**2.2**
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**9.3**	**5.7**	**0.12**	**1.0**	**9.3**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**18**	**5.7**	**0.14**	**0.1**	**1.8**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**73**	**5.7**	**0.14**	**0.1**	**7.3**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**46 C B**	**5.7**	**0.13**	**0.1**	**4.6**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**1800 B**	**5.7**	**0.26**	**0.01**	**18**
OCDD	**1/4/13**	**1**	**20000 B E**	**11**	**0.25**	**0.0003**	**6.0**
2,3,7,8-TCDF	**1/4/13**	**1**	**2.4 B**	**1.1**	**0.25**	**0.1**	**0.24**
1,2,3,7,8-PeCDF	**1/4/13**	**1**	**1.9 J**	**5.7**	**0.13**	**0.03**	**0.057**
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**2.0 J**	**5.7**	**0.13**	**0.3**	**0.60**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**11 Q**	**5.7**	**0.059**	**0.1**	**1.1**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**21 Q B**	**5.7**	**0.057**	**0.1**	**2.1**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**7.8 B**	**5.7**	**0.062**	**0.1**	**0.78**
1,2,3,7,8,9-HxCDF	**1/4/13**	**1**	**0.70 Q J**	**5.7**	**0.083**	**0.1**	**0.070**
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**260 B**	**5.7**	**0.13**	**0.01**	**2.6**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**22 B**	**5.7**	**0.25**	**0.01**	**0.22**
OCDF	**1/4/13**	**1**	**230 B**	**11**	**0.12**	**0.0003**	**0.069**
Total TEQ Concentration							**57**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	105	(17 - 157)
13C-2,3,7,8-TCDF	87	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	68	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	62	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-599-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-999-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 003	**Work Order #....:**	MXLL01AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	9.1
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/4/13**	**1**	**1.3 Q**	**1.1**	**0.12**	**1.0**	**1.3**
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**5.3 Q J**	**5.3**	**0.15**	**1.0**	**5.3**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**10**	**5.3**	**0.14**	**0.1**	**1.0**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**43**	**5.3**	**0.15**	**0.1**	**4.3**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**27 C B**	**5.3**	**0.13**	**0.1**	**2.7**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**1000 B**	**5.3**	**0.29**	**0.01**	**10.0**
OCDD	**1/4/13**	**1**	**12000 B E**	**11**	**0.30**	**0.0003**	**3.6**
2,3,7,8-TCDF	**1/4/13**	**1**	**2.2 B X**	**1.1**	**0.13**	**0.1**	**0.22**
1,2,3,7,8-PeCDF	**1/4/13**	**1**	**1.5 J**	**5.3**	**0.13**	**0.03**	**0.045**
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**1.5 J**	**5.3**	**0.11**	**0.3**	**0.45**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**6.7 Q**	**5.3**	**0.066**	**0.1**	**0.67**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**11 Q B**	**5.3**	**0.064**	**0.1**	**1.1**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**4.1 B J**	**5.3**	**0.064**	**0.1**	**0.41**
1,2,3,7,8,9-HxCDF	**1/4/13**	**1**	**0.46 Q J**	**5.3**	**0.076**	**0.1**	**0.046**
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**140 B**	**5.3**	**0.10**	**0.01**	**1.4**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**12 B**	**5.3**	**0.14**	**0.01**	**0.12**
OCDF	**1/4/13**	**1**	**260 B**	**11**	**0.069**	**0.0003**	**0.078**
Total TEQ Concentration							**33**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	92	(23 - 140)
13C-OCDD	113	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	98	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	91	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-999-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
X	See project narrative.

TestAmerica Denver

Client Sample ID: SL-599-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 004	**Work Order #....:**	MXLL11AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	4.1
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/4/13	1	ND	0.99	0.026	1.0	0
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**0.11 Q J**	**5.0**	**0.028**	**1.0**	**0.11**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.13 Q J**	**5.0**	**0.049**	**0.1**	**0.013**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**0.75 J**	**5.0**	**0.053**	**0.1**	**0.075**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**0.57 B J**	**5.0**	**0.048**	**0.1**	**0.057**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**28 B**	**5.0**	**0.088**	**0.01**	**0.28**
OCDD	**1/4/13**	**1**	**430 B**	**9.9**	**0.10**	**0.0003**	**0.13**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.031 Q B J**	**0.99**	**0.026**	**0.1**	**0.0031**
1,2,3,7,8-PeCDF	1/4/13	1	ND	5.0	0.027	0.03	0
2,3,4,7,8-PeCDF	1/4/13	1	ND	5.0	0.025	0.3	0
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**0.17 J**	**5.0**	**0.037**	**0.1**	**0.017**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**0.24 Q B J**	**5.0**	**0.034**	**0.1**	**0.024**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**0.14 B J**	**5.0**	**0.031**	**0.1**	**0.014**
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.0	0.058	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**4.2 B J**	**5.0**	**0.048**	**0.01**	**0.042**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**0.53 Q B J**	**5.0**	**0.094**	**0.01**	**0.0053**
OCDF	**1/4/13**	**1**	**5.6 B J**	**9.9**	**0.030**	**0.0003**	**0.0017**
Total TEQ Concentration							**0.77**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	96	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	54	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	54	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	43	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-599-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 005	**Work Order #....:**	MXLL21AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	12
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/4/13**	**1**	**0.035 J**	**1.1**	**0.026**	**1.0**	**0.035**
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**0.17 Q J**	**5.4**	**0.047**	**1.0**	**0.17**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.25 Q J**	**5.4**	**0.083**	**0.1**	**0.025**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**10**	**5.4**	**0.086**	**0.1**	**1.0**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**0.89 Q B J**	**5.4**	**0.079**	**0.1**	**0.089**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**200 B**	**5.4**	**0.15**	**0.01**	**2.0**
OCDD	**1/4/13**	**1**	**5400 B E**	**11**	**0.20**	**0.0003**	**1.6**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.23 B J**	**1.1**	**0.035**	**0.1**	**0.023**
1,2,3,7,8-PeCDF	1/4/13	1	ND	5.4	0.050	0.03	0
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**0.17 Q J**	**5.4**	**0.046**	**0.3**	**0.051**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**1.4 Q J**	**5.4**	**0.044**	**0.1**	**0.14**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**2.0 Q B J**	**5.4**	**0.045**	**0.1**	**0.20**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**0.35 B J**	**5.4**	**0.047**	**0.1**	**0.035**
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.4	0.060	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**28 B**	**5.4**	**0.068**	**0.01**	**0.28**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**3.1 B J**	**5.4**	**0.099**	**0.01**	**0.031**
OCDF	**1/4/13**	**1**	**18 B**	**11**	**0.032**	**0.0003**	**0.0054**
Total TEQ Concentration							**5.7**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	107	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	86	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	76	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-548-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-948-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 006	**Work Order #....:**	MXLL31AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	11
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/4/13	1	ND	1.1	0.038	1.0	0
1,2,3,7,8-PeCDD	**1/4/13**	**1**	**0.13 Q J**	**5.4**	**0.043**	**1.0**	**0.13**
1,2,3,4,7,8-HxCDD	**1/4/13**	**1**	**0.16 Q J**	**5.4**	**0.060**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDD	**1/4/13**	**1**	**0.89 J**	**5.4**	**0.063**	**0.1**	**0.089**
1,2,3,7,8,9-HxCDD	**1/4/13**	**1**	**0.43 B J**	**5.4**	**0.058**	**0.1**	**0.043**
1,2,3,4,6,7,8-HpCDD	**1/4/13**	**1**	**30 B**	**5.4**	**0.096**	**0.01**	**0.30**
OCDD	**1/4/13**	**1**	**540 B**	**11**	**0.12**	**0.0003**	**0.16**
2,3,7,8-TCDF	**1/4/13**	**1**	**0.19 Q B J**	**1.1**	**0.037**	**0.1**	**0.019**
1,2,3,7,8-PeCDF	**1/4/13**	**1**	**0.063 Q J**	**5.4**	**0.035**	**0.03**	**0.0019**
2,3,4,7,8-PeCDF	**1/4/13**	**1**	**0.16 J**	**5.4**	**0.034**	**0.3**	**0.048**
1,2,3,4,7,8-HxCDF	**1/4/13**	**1**	**0.30 Q J**	**5.4**	**0.042**	**0.1**	**0.030**
1,2,3,6,7,8-HxCDF	**1/4/13**	**1**	**0.28 Q B J**	**5.4**	**0.040**	**0.1**	**0.028**
2,3,4,6,7,8-HxCDF	**1/4/13**	**1**	**0.088 Q B J**	**5.4**	**0.043**	**0.1**	**0.0088**
1,2,3,7,8,9-HxCDF	1/4/13	1	ND	5.4	0.050	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/4/13**	**1**	**3.5 Q B J**	**5.4**	**0.075**	**0.01**	**0.035**
1,2,3,4,7,8,9-HpCDF	**1/4/13**	**1**	**0.42 B J**	**5.4**	**0.095**	**0.01**	**0.0042**
OCDF	**1/4/13**	**1**	**6.0 B J**	**11**	**0.036**	**0.0003**	**0.0018**
Total TEQ Concentration							**0.92**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	97	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	84	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	94	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-948-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-555-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 007	**Work Order #....:**	MXLL41AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	7.9
Initial Wgt/Vol :	9.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/7/13**	**1**	**0.032 Q J**	**1.1**	**0.027**	**1.0**	**0.032**
1,2,3,7,8-PeCDD	**1/7/13**	**1**	**0.15 Q J**	**5.7**	**0.023**	**1.0**	**0.15**
1,2,3,4,7,8-HxCDD	**1/7/13**	**1**	**0.14 Q J**	**5.7**	**0.047**	**0.1**	**0.014**
1,2,3,6,7,8-HxCDD	**1/7/13**	**1**	**0.34 J**	**5.7**	**0.051**	**0.1**	**0.034**
1,2,3,7,8,9-HxCDD	**1/7/13**	**1**	**0.51 B J**	**5.7**	**0.046**	**0.1**	**0.051**
1,2,3,4,6,7,8-HpCDD	**1/7/13**	**1**	**5.6 B J**	**5.7**	**0.046**	**0.01**	**0.056**
OCDD	**1/7/13**	**1**	**81 B**	**11**	**0.054**	**0.0003**	**0.024**
2,3,7,8-TCDF	**1/7/13**	**1**	**0.076 B Q J**	**1.1**	**0.022**	**0.1**	**0.0076**
1,2,3,7,8-PeCDF	**1/7/13**	**1**	**0.057 Q J**	**5.7**	**0.022**	**0.03**	**0.0017**
2,3,4,7,8-PeCDF	**1/7/13**	**1**	**0.053 Q J**	**5.7**	**0.022**	**0.3**	**0.016**
1,2,3,4,7,8-HxCDF	1/7/13	1	ND	5.7	0.024	0.1	0
1,2,3,6,7,8-HxCDF	**1/7/13**	**1**	**0.051 Q B J**	**5.7**	**0.024**	**0.1**	**0.0051**
2,3,4,6,7,8-HxCDF	**1/7/13**	**1**	**0.073 Q B J**	**5.7**	**0.025**	**0.1**	**0.0073**
1,2,3,7,8,9-HxCDF	**1/7/13**	**1**	**0.14 J**	**5.7**	**0.031**	**0.1**	**0.014**
1,2,3,4,6,7,8-HpCDF	**1/7/13**	**1**	**0.72 Q B J**	**5.7**	**0.022**	**0.01**	**0.0072**
1,2,3,4,7,8,9-HpCDF	1/7/13	1	ND	5.7	0.031	0.01	0
OCDF	**1/7/13**	**1**	**1.5 B J**	**11**	**0.020**	**0.0003**	**0.00045**
Total TEQ Concentration							**0.42**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	98	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	83	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	89	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-555-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-597-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 008	**Work Order #....:**	MXLL51AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	4.2
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/7/13**	**1**	**0.060 Q J**	**1.0**	**0.036**	**1.0**	**0.060**
1,2,3,7,8-PeCDD	**1/7/13**	**1**	**0.52 J**	**5.2**	**0.045**	**1.0**	**0.52**
1,2,3,4,7,8-HxCDD	**1/7/13**	**1**	**1.4 J**	**5.2**	**0.27**	**0.1**	**0.14**
1,2,3,6,7,8-HxCDD	**1/7/13**	**1**	**4.5 J**	**5.2**	**0.65**	**0.1**	**0.45**
1,2,3,7,8,9-HxCDD	**1/7/13**	**1**	**13 B**	**5.2**	**0.36**	**0.1**	**1.3**
1,2,3,4,6,7,8-HpCDD	**1/7/13**	**1**	**98 B**	**5.2**	**0.13**	**0.01**	**0.98**
OCDD	**1/7/13**	**1**	**1200 B**	**10**	**0.14**	**0.0003**	**0.36**
2,3,7,8-TCDF	**1/7/13**	**1**	**0.99 Q B J**	**1.0**	**0.050**	**0.1**	**0.099**
1,2,3,7,8-PeCDF	**1/7/13**	**1**	**0.18 Q J**	**5.2**	**0.030**	**0.03**	**0.0054**
2,3,4,7,8-PeCDF	**1/7/13**	**1**	**0.25 Q J**	**5.2**	**0.027**	**0.3**	**0.075**
1,2,3,4,7,8-HxCDF	**1/7/13**	**1**	**1.3 J**	**5.2**	**0.24**	**0.1**	**0.13**
1,2,3,6,7,8-HxCDF	1/7/13	1	ND	5.2	1.0	0.1	0
2,3,4,6,7,8-HxCDF	**1/7/13**	**1**	**0.47 B J**	**5.2**	**0.030**	**0.1**	**0.047**
1,2,3,7,8,9-HxCDF	**1/7/13**	**1**	**0.071 Q J**	**5.2**	**0.035**	**0.1**	**0.0071**
1,2,3,4,6,7,8-HpCDF	**1/7/13**	**1**	**14 Q B**	**5.2**	**1.0**	**0.01**	**0.14**
1,2,3,4,7,8,9-HpCDF	**1/7/13**	**1**	**1.6 B J**	**5.2**	**0.041**	**0.01**	**0.016**
OCDF	**1/7/13**	**1**	**37 B**	**10**	**0.040**	**0.0003**	**0.011**
Total TEQ Concentration							**4.3**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	19 *	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	7.5 *	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	84	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	9.3 *	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	2.1 *	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	2.5 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	89	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-597-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-605-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 009	**Work Order #....:**	MXLL61AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	12
Initial Wgt/Vol :	9.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/7/13	1	ND	1.2	0.039	1.0	0
1,2,3,7,8-PeCDD	1/7/13	1	ND	6.0	0.038	1.0	0
1,2,3,4,7,8-HxCDD	1/7/13	1	ND	6.0	0.059	0.1	0
1,2,3,6,7,8-HxCDD	1/7/13	1	ND	6.0	0.083	0.1	0
1,2,3,7,8,9-HxCDD	**1/7/13**	**1**	**0.22 Q B J**	**6.0**	**0.065**	**0.1**	**0.022**
1,2,3,4,6,7,8-HpCDD	**1/7/13**	**1**	**2.3 B J**	**6.0**	**0.068**	**0.01**	**0.023**
OCDD	**1/7/13**	**1**	**30 B**	**12**	**0.056**	**0.0003**	**0.0090**
2,3,7,8-TCDF	**1/7/13**	**1**	**0.37 Q B J**	**1.2**	**0.032**	**0.1**	**0.037**
1,2,3,7,8-PeCDF	1/7/13	1	ND	6.0	0.029	0.03	0
2,3,4,7,8-PeCDF	**1/7/13**	**1**	**0.057 Q J**	**6.0**	**0.028**	**0.3**	**0.017**
1,2,3,4,7,8-HxCDF	1/7/13	1	ND	6.0	0.040	0.1	0
1,2,3,6,7,8-HxCDF	1/7/13	1	ND	6.0	0.055	0.1	0
2,3,4,6,7,8-HxCDF	**1/7/13**	**1**	**0.036 Q B J**	**6.0**	**0.026**	**0.1**	**0.0036**
1,2,3,7,8,9-HxCDF	1/7/13	1	ND	6.0	0.031	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/7/13**	**1**	**0.51 Q B J**	**6.0**	**0.075**	**0.01**	**0.0051**
1,2,3,4,7,8,9-HpCDF	**1/7/13**	**1**	**0.095 Q B J**	**6.0**	**0.038**	**0.01**	**0.00095**
OCDF	**1/7/13**	**1**	**1.3 B J**	**12**	**0.036**	**0.0003**	**0.00039**
Total TEQ Concentration							**0.12**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	68	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	48	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	57	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	36	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	33	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	90	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-605-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-609-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 010	**Work Order #....:**	MXLL71AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	5.8
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/7/13	1	ND	1.0	0.026	1.0	0
1,2,3,7,8-PeCDD	**1/7/13**	**1**	**0.087 Q J**	**5.1**	**0.023**	**1.0**	**0.087**
1,2,3,4,7,8-HxCDD	1/7/13	1	ND	5.1	0.093	0.1	0
1,2,3,6,7,8-HxCDD	1/7/13	1	ND	5.1	0.25	0.1	0
1,2,3,7,8,9-HxCDD	**1/7/13**	**1**	**0.62 Q B J**	**5.1**	**0.13**	**0.1**	**0.062**
1,2,3,4,6,7,8-HpCDD	**1/7/13**	**1**	**5.6 B**	**5.1**	**0.063**	**0.01**	**0.056**
OCDD	**1/7/13**	**1**	**56 B**	**10**	**0.047**	**0.0003**	**0.017**
2,3,7,8-TCDF	**1/7/13**	**1**	**0.12 B J**	**1.0**	**0.023**	**0.1**	**0.012**
1,2,3,7,8-PeCDF	**1/7/13**	**1**	**0.038 Q J**	**5.1**	**0.020**	**0.03**	**0.0011**
2,3,4,7,8-PeCDF	**1/7/13**	**1**	**0.076 J**	**5.1**	**0.019**	**0.3**	**0.023**
1,2,3,4,7,8-HxCDF	1/7/13	1	ND	5.1	0.088	0.1	0
1,2,3,6,7,8-HxCDF	**1/7/13**	**1**	**0.37 Q B J**	**5.1**	**0.40**	**0.1**	**0.037**
2,3,4,6,7,8-HxCDF	**1/7/13**	**1**	**0.046 Q B J**	**5.1**	**0.019**	**0.1**	**0.0046**
1,2,3,7,8,9-HxCDF	1/7/13	1	ND	5.1	0.023	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/7/13**	**1**	**3.8 Q B J**	**5.1**	**0.77**	**0.01**	**0.038**
1,2,3,4,7,8,9-HpCDF	**1/7/13**	**1**	**0.14 Q B J**	**5.1**	**0.030**	**0.01**	**0.0014**
OCDF	**1/7/13**	**1**	**5.2 B J**	**10**	**0.027**	**0.0003**	**0.0016**
Total TEQ Concentration							**0.34**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	89	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	35	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	13 *	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	76	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	17 *	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	3.8 *	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	2.5 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	87	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-609-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-610-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 011	**Work Order #....:**	MXLL81AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	4.5
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.0	0.032	1.0	0
1,2,3,7,8-PeCDD	1/8/13	1	ND	5.0	0.026	1.0	0
1,2,3,4,7,8-HxCDD	1/8/13	1	ND	5.0	0.040	0.1	0
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.13 J**	**5.0**	**0.049**	**0.1**	**0.013**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.14 B J**	**5.0**	**0.041**	**0.1**	**0.014**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**2.1 B J**	**5.0**	**0.055**	**0.01**	**0.021**
OCDD	**1/8/13**	**1**	**24 B**	**10**	**0.049**	**0.0003**	**0.0072**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.022 Q B J**	**1.0**	**0.021**	**0.1**	**0.0022**
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.0	0.023	0.03	0
2,3,4,7,8-PeCDF	1/8/13	1	ND	5.0	0.021	0.3	0
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.043 Q J**	**5.0**	**0.022**	**0.1**	**0.0043**
1,2,3,6,7,8-HxCDF	1/8/13	1	ND	5.0	0.028	0.1	0
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.037 Q B J**	**5.0**	**0.018**	**0.1**	**0.0037**
1,2,3,7,8,9-HxCDF	1/8/13	1	ND	5.0	0.023	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**0.52 Q B J**	**5.0**	**0.037**	**0.01**	**0.0052**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.11 B J**	**5.0**	**0.031**	**0.01**	**0.0011**
OCDF	**1/8/13**	**1**	**1.0 Q B J**	**10**	**0.024**	**0.0003**	**0.00030**
Total TEQ Concentration							**0.072**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	73	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	86	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	52	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	49	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	84	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-610-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-556-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 012	**Work Order #....:**	MXLL91AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	5.1
Initial Wgt/Vol :	9.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.1	0.044	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.59 Q J**	**5.5**	**0.050**	**1.0**	**0.59**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**1.4 J**	**5.5**	**0.092**	**0.1**	**0.14**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**4.2 J**	**5.5**	**0.11**	**0.1**	**0.42**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**4.1 B J**	**5.5**	**0.096**	**0.1**	**0.41**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**180 B**	**5.5**	**0.18**	**0.01**	**1.8**
OCDD	**1/8/13**	**1**	**3200 B**	**11**	**0.17**	**0.0003**	**0.96**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.24 Q B J**	**1.1**	**0.035**	**0.1**	**0.024**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.20 Q J**	**5.5**	**0.051**	**0.03**	**0.0060**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.30 Q J**	**5.5**	**0.046**	**0.3**	**0.090**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**1.4 J**	**5.5**	**0.059**	**0.1**	**0.14**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.85 B J**	**5.5**	**0.068**	**0.1**	**0.085**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.41 Q B J**	**5.5**	**0.041**	**0.1**	**0.041**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.13 Q J**	**5.5**	**0.049**	**0.1**	**0.013**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**11 B**	**5.5**	**0.10**	**0.01**	**0.11**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**1.4 B J**	**5.5**	**0.062**	**0.01**	**0.014**
OCDF	**1/8/13**	**1**	**28 B**	**11**	**0.052**	**0.0003**	**0.0084**
Total TEQ Concentration							**4.9**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	60	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	46	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	82	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	51	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	39	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	38	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-556-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-594-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 013	**Work Order #....:**	MXLMA1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	6.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/8/13**	**1**	**0.091 Q J**	**1.1**	**0.044**	**1.0**	**0.091**
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**1.2 Q J**	**5.3**	**0.076**	**1.0**	**1.2**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**2.8 J**	**5.3**	**0.079**	**0.1**	**0.28**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**7.2**	**5.3**	**0.084**	**0.1**	**0.72**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**5.7 B**	**5.3**	**0.076**	**0.1**	**0.57**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**230 B**	**5.3**	**0.25**	**0.01**	**2.3**
OCDD	**1/8/13**	**1**	**2600 B**	**11**	**0.14**	**0.0003**	**0.78**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.38 Q B J**	**1.1**	**0.048**	**0.1**	**0.038**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.22 Q J**	**5.3**	**0.065**	**0.03**	**0.0066**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.28 J**	**5.3**	**0.057**	**0.3**	**0.084**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**1.2 J**	**5.3**	**0.046**	**0.1**	**0.12**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**1.1 Q B J**	**5.3**	**0.050**	**0.1**	**0.11**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.56 Q B J**	**5.3**	**0.049**	**0.1**	**0.056**
1,2,3,7,8,9-HxCDF	1/8/13	1	ND	5.3	0.056	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**40 Q B**	**5.3**	**0.079**	**0.01**	**0.40**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**1.8 B J**	**5.3**	**0.094**	**0.01**	**0.018**
OCDF	**1/8/13**	**1**	**180 B**	**11**	**0.10**	**0.0003**	**0.054**
Total TEQ Concentration							**6.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	88	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-594-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-595-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 014	**Work Order #....:**	MXLMC1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	11
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/8/13**	**1**	**0.16 Q J**	**1.2**	**0.065**	**1.0**	**0.16**
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**1.4 J**	**5.8**	**0.071**	**1.0**	**1.4**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**2.5 J**	**5.8**	**0.25**	**0.1**	**0.25**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**5.9**	**5.8**	**0.69**	**0.1**	**0.59**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**28 B**	**5.8**	**0.35**	**0.1**	**2.8**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**160 B**	**5.8**	**0.17**	**0.01**	**1.6**
OCDD	**1/8/13**	**1**	**2500 B**	**12**	**0.17**	**0.0003**	**0.75**
2,3,7,8-TCDF	**1/9/13**	**1**	**0.96 B J**	**1.2**	**0.14**	**0.1**	**0.096**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.47 Q J**	**5.8**	**0.060**	**0.03**	**0.014**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.75 J**	**5.8**	**0.055**	**0.3**	**0.22**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**2.3 J**	**5.8**	**0.19**	**0.1**	**0.23**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**1.6 Q B J**	**5.8**	**0.82**	**0.1**	**0.16**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.57 Q B J**	**5.8**	**0.041**	**0.1**	**0.057**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.28 Q J**	**5.8**	**0.047**	**0.1**	**0.028**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**27 Q B**	**5.8**	**1.6**	**0.01**	**0.27**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**1.1 B J**	**5.8**	**0.069**	**0.01**	**0.011**
OCDF	**1/8/13**	**1**	**52 B**	**12**	**0.082**	**0.0003**	**0.016**
Total TEQ Concentration							**8.7**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	27 *	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	9.7 *	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	88	(17 - 157)
13C-2,3,7,8-TCDF	92	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	18 *	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	3.9 *	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	86	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	3.4 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	95	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-595-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-595-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 015	**Work Order #....:**	MXLMD1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	5.6
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.0	0.033	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.22 J**	**5.2**	**0.032**	**1.0**	**0.22**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.26 J**	**5.2**	**0.057**	**0.1**	**0.026**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.73 J**	**5.2**	**0.088**	**0.1**	**0.073**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**1.1 B J**	**5.2**	**0.065**	**0.1**	**0.11**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**17 B**	**5.2**	**0.058**	**0.01**	**0.17**
OCDD	**1/8/13**	**1**	**290 B**	**10**	**0.073**	**0.0003**	**0.087**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.14 Q B J**	**1.0**	**0.025**	**0.1**	**0.014**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.094 Q J**	**5.2**	**0.026**	**0.03**	**0.0028**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.15 J**	**5.2**	**0.023**	**0.3**	**0.045**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.21 J**	**5.2**	**0.031**	**0.1**	**0.021**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.15 Q B J**	**5.2**	**0.050**	**0.1**	**0.015**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.088 Q B J**	**5.2**	**0.020**	**0.1**	**0.0088**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.057 Q J**	**5.2**	**0.022**	**0.1**	**0.0057**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**1.7 Q B J**	**5.2**	**0.070**	**0.01**	**0.017**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.13 Q B J**	**5.2**	**0.031**	**0.01**	**0.0013**
OCDF	**1/8/13**	**1**	**5.8 B J**	**10**	**0.037**	**0.0003**	**0.0017**
Total TEQ Concentration							**0.82**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	91	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	63	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	38	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
13C-OCDD	75	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	54	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	30	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	89	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	30	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	92	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-595-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-593-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L150408 - 016	**Work Order #....:**	MXLME1AC	**Matrix.....:**	SO
Date Sampled....:	12/11/12	**Date Received....:**	12/15/12	**Units....:**	ng/kg
Prep Date....:	12/19/12			**Dilution Factor:**	1
Prep Batch # ....:	2354023			**Percent Moisture:**	8.9
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.1	0.044	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.68 J**	**5.5**	**0.048**	**1.0**	**0.68**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**1.3 J**	**5.5**	**0.14**	**0.1**	**0.13**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**3.2 Q J**	**5.5**	**0.21**	**0.1**	**0.32**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**7.2 B**	**5.5**	**0.16**	**0.1**	**0.72**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**90 B**	**5.5**	**0.13**	**0.01**	**0.90**
OCDD	**1/8/13**	**1**	**1200 B**	**11**	**0.11**	**0.0003**	**0.36**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.13 Q B J**	**1.1**	**0.031**	**0.1**	**0.013**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.17 Q J**	**5.5**	**0.037**	**0.03**	**0.0051**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.16 Q J**	**5.5**	**0.034**	**0.3**	**0.048**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**1.0 C J**	**5.5**	**0.089**	**0.1**	**0.10**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.39 Q B J**	**5.5**	**0.14**	**0.1**	**0.039**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.23 Q B J**	**5.5**	**0.034**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.18 Q J**	**5.5**	**0.040**	**0.1**	**0.018**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**17 B**	**5.5**	**0.20**	**0.01**	**0.17**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**1.0 B J**	**5.5**	**0.055**	**0.01**	**0.010**
OCDF	**1/8/13**	**1**	**47 B**	**11**	**0.062**	**0.0003**	**0.014**
Total TEQ Concentration							**3.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	85	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	34	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	20 *	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	71	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	27	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	16 *	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	16 *	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-593-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L190000 - 023B	**Work Order #....:**	MXM171AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/19/12	**Analysis Date....:**	01/04/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2354023				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.038	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.029	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.089	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.22	ng/kg
1,2,3,7,8,9-HxCDD	**0.38**	**J**	**5.0**	**0.12**	**ng/kg**
1,2,3,4,6,7,8-HpCDD	**0.25**	**Q J**	**5.0**	**0.049**	**ng/kg**
OCDD	**1.3**	**J**	**10**	**0.036**	**ng/kg**
2,3,7,8-TCDF	**0.033**	**Q J**	**1.0**	**0.019**	**ng/kg**
1,2,3,7,8-PeCDF	ND		5.0	0.025	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.025	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.13	ng/kg
1,2,3,6,7,8-HxCDF	**0.66**	**Q J**	**5.0**	**0.46**	**ng/kg**
2,3,4,6,7,8-HxCDF	**0.067**	**Q J**	**5.0**	**0.032**	**ng/kg**
1,2,3,7,8,9-HxCDF	ND		5.0	0.038	ng/kg
1,2,3,4,6,7,8-HpCDF	**2.4**	**Q J**	**5.0**	**0.38**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.091**	**Q J**	**5.0**	**0.022**	**ng/kg**
OCDF	**0.57**	**J**	**10**	**0.031**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C-2,3,7,8-TCDD	79		25 - 164
13C-1,2,3,7,8-PeCDD	92		25 - 181
13C-1,2,3,4,7,8-HxCDD	33		32 - 141
13C-1,2,3,6,7,8-HxCDD	14	*	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	81		23 - 140
13C-OCDD	74		17 - 157
13C-2,3,7,8-TCDF	84		24 - 169
13C-1,2,3,7,8-PeCDF	90		24 - 185
13C-2,3,4,7,8-PeCDF	89		21 - 178
13C-1,2,3,4,7,8-HxCDF	19	*	26 - 152
13C-1,2,3,6,7,8-HxCDF	5.3	*	26 - 123
13C-2,3,4,6,7,8-HxCDF	86		28 - 136
13C-1,2,3,7,8,9-HxCDF	84		29 - 147
13C-1,2,3,4,6,7,8-HpCDF	3.4	*	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	87		26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L190000 - 023B	**Work Order #....:**	MXM171AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/19/12	**Analysis Date....:**	01/04/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2354023				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	35 - 197

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXM171AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L190000 - 023				
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Linda K. McWhirter	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.2**	**ng/kg**	**106**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**111**	**ng/kg**	**111**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**106**	**ng/kg**	**106**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**155**	**ng/kg**	**155**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**107**	**ng/kg**	**107**	**B**	**(70 - 140)**
OCDD	**200**	**211**	**ng/kg**	**106**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.5**	**ng/kg**	**97**	**B**	**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**105**	**ng/kg**	**105**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**108**	**ng/kg**	**108**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**94.5**	**ng/kg**	**95**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**93.5**	**ng/kg**	**93**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**93.2**	**ng/kg**	**93**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**100**	**ng/kg**	**100**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**92.2**	**ng/kg**	**92**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**98.3**	**ng/kg**	**98**	**B**	**(78 - 138)**
OCDF	**200**	**173**	**ng/kg**	**86**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(20 - 175)
13C-1,2,3,7,8-PeCDD	89	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	71	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	51	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	86	(26 - 166)
13C-OCDD	74	(13 - 199)
13C-2,3,7,8-TCDF	82	(22 - 152)
13C-1,2,3,7,8-PeCDF	88	(21 - 192)
13C-2,3,4,7,8-PeCDF	89	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	62	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	39	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	89	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	84	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	37	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	87	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLLX1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 002		MXLLX1AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**2.2**	**86.6**	**24.8**	**ng/kg**	**26 a**	**(67 - 158)**		
	2.2	**20.9**	**25.4**	**ng/kg**	**112**	**(67 - 158)**	**2.7**	**(0 - 25)**
1,2,3,7,8-PeCDD	**9.3**	**104**	**127**	**ng/kg**	**113**	**(70 - 142)**		
	9.3	**104**	**126**	**ng/kg**	**112**	**(70 - 142)**	**0.51**	**(0 - 25)**
1,2,3,4,7,8-HxCDD	**18**	**104**	**129**	**ng/kg**	**106**	**(70 - 164)**		
	18	**104**	**132**	**ng/kg**	**109**	**(70 - 164)**	**2.0**	**(0 - 25)**
1,2,3,6,7,8-HxCDD	**73**	**104**	**170**	**ng/kg**	**93**	**(76 - 134)**		
	73	**104**	**175**	**ng/kg**	**98**	**(76 - 134)**	**3.0**	**(0 - 25)**
1,2,3,7,8,9-HxCDD	**46**	**104**	**167**	**ng/kg**	**116 B**	**(64 - 162)**		
	46	**104**	**173**	**ng/kg**	**122 B**	**(64 - 162)**	**3.2**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDD	**1800**	**104**	**1480**	**ng/kg**	**0.0 a B**	**(70 - 140)**		
	1800	**104**	**1490**	**ng/kg**	**0.0 a B**	**(70 - 140)**	**0.0**	**(0 - 25)**
OCDD	**20000**	**209**	**13900**	**ng/kg**	**0.0 a B E**	**(78 - 144)**		
	20000	**209**	**15300**	**ng/kg**	**0.0 a B E**	**(78 - 144)**	**0.0**	**(0 - 25)**
2,3,7,8-TCDF	**2.4**	**20.9**	**29.9**	**ng/kg**	**132 B X**	**(75 - 158)**		
	2.4	**20.9**	**28.3**	**ng/kg**	**124 B X**	**(75 - 158)**	**5.2**	**(0 - 25)**
1,2,3,7,8-PeCDF	**1.9**	**104**	**114**	**ng/kg**	**107**	**(80 - 134)**		
	1.9	**104**	**112**	**ng/kg**	**106**	**(80 - 134)**	**1.3**	**(0 - 25)**
2,3,4,7,8-PeCDF	**2.0**	**104**	**114**	**ng/kg**	**107**	**(68 - 160)**		
	2.0	**104**	**114**	**ng/kg**	**108**	**(68 - 160)**	**0.50**	**(0 - 25)**
1,2,3,4,7,8-HxCDF	**11**	**104**	**112**	**ng/kg**	**97 Q**	**(72 - 134)**		
	11	**104**	**114**	**ng/kg**	**99 Q**	**(72 - 134)**	**1.8**	**(0 - 25)**
1,2,3,6,7,8-HxCDF	**21**	**104**	**114**	**ng/kg**	**89 Q B**	**(84 - 130)**		
	21	**104**	**121**	**ng/kg**	**96 Q B**	**(84 - 130)**	**6.0**	**(0 - 25)**
2,3,4,6,7,8-HxCDF	**7.8**	**104**	**108**	**ng/kg**	**96 B**	**(70 - 156)**		
	7.8	**104**	**111**	**ng/kg**	**99 B**	**(70 - 156)**	**3.0**	**(0 - 25)**
1,2,3,7,8,9-HxCDF	**0.70**	**104**	**109**	**ng/kg**	**104**	**(78 - 130)**		
	0.70	**104**	**108**	**ng/kg**	**103**	**(78 - 130)**	**1.1**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDF	**260**	**104**	**298**	**ng/kg**	**41 a B**	**(82 - 122)**		
	260	**104**	**299**	**ng/kg**	**42 a B**	**(82 - 122)**	**0.34**	**(0 - 25)**
1,2,3,4,7,8,9-HpCDF	**22**	**104**	**120**	**ng/kg**	**93 B**	**(78 - 138)**		
	22	**104**	**122**	**ng/kg**	**96 B**	**(78 - 138)**	**2.1**	**(0 - 25)**
OCDF	**230**	**209**	**475**	**ng/kg**	**116 B**	**(63 - 170)**		
	230	**209**	**368**	**ng/kg**	**64 B**	**(63 - 170)**	**25**	**(0 - 25)**

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLLX1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 002		MXLLX1AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	(25 - 164)
	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
	89	(23 - 140)
13C-OCDD	119	(17 - 157)
	111	(17 - 157)
13C-2,3,7,8-TCDF	89	(24 - 169)
	97	(24 - 169)
13C-1,2,3,7,8-PeCDF	85	(24 - 185)
	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	82	(21 - 178)
	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	73	(26 - 123)
	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	77	(28 - 136)
	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	89	(26 - 138)
	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)
	89	(35 - 197)

SOG_Stnd_msmsd_rev1.rpt 1/9/2013

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLLX1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 002		MXLLX1AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

Q Estimated maximum possible concentration (EMPC).

X See project narrative.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLL21AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 005		MXLL21AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	0.035	23.1	24.3	ng/kg	105	(67 - 158)		
	0.035	23.1	24.3	ng/kg	105	(67 - 158)	0.24	(0 - 25)
1,2,3,7,8-PeCDD	0.17	115	135	ng/kg	117	(70 - 142)		
	0.17	115	134	ng/kg	116	(70 - 142)	0.83	(0 - 25)
1,2,3,4,7,8-HxCDD	0.25	115	128	ng/kg	110	(70 - 164)		
	0.25	115	128	ng/kg	111	(70 - 164)	0.18	(0 - 25)
1,2,3,6,7,8-HxCDD	10	115	132	ng/kg	105	(76 - 134)		
	10	115	123	ng/kg	98	(76 - 134)	7.1	(0 - 25)
1,2,3,7,8,9-HxCDD	0.89	115	139	ng/kg	120 B	(64 - 162)		
	0.89	115	134	ng/kg	115 B	(64 - 162)	3.7	(0 - 25)
1,2,3,4,6,7,8-HpCDD	200	115	256	ng/kg	47 a B	(70 - 140)		
	200	115	206	ng/kg	4.2 a B	(70 - 140)	21	(0 - 25)
OCDD	5400	231	2640	ng/kg	0.0 a B	(78 - 144)		
	5400	231	1960	ng/kg	0.0 a B	(78 - 144)	0.0	(0 - 25)
2,3,7,8-TCDF	0.23	23.1	23.3	ng/kg	100 B X	(75 - 158)		
	0.23	23.1	23.0	ng/kg	99 B X	(75 - 158)	1.1	(0 - 25)
1,2,3,7,8-PeCDF	ND	115	124	ng/kg	107	(80 - 134)		
	ND	115	124	ng/kg	107	(80 - 134)	0.24	(0 - 25)
2,3,4,7,8-PeCDF	0.17	115	124	ng/kg	108	(68 - 160)		
	0.17	115	125	ng/kg	109	(68 - 160)	0.94	(0 - 25)
1,2,3,4,7,8-HxCDF	1.4	115	114	ng/kg	98 Q	(72 - 134)		
	1.4	115	114	ng/kg	98 Q	(72 - 134)	0.020	(0 - 25)
1,2,3,6,7,8-HxCDF	2.0	115	116	ng/kg	99 Q B	(84 - 130)		
	2.0	115	114	ng/kg	97 Q B	(84 - 130)	2.1	(0 - 25)
2,3,4,6,7,8-HxCDF	0.35	115	116	ng/kg	100 B	(70 - 156)		
	0.35	115	114	ng/kg	98 B	(70 - 156)	2.1	(0 - 25)
1,2,3,7,8,9-HxCDF	ND	115	118	ng/kg	102	(78 - 130)		
	ND	115	115	ng/kg	99	(78 - 130)	3.1	(0 - 25)
1,2,3,4,6,7,8-HpCDF	28	115	134	ng/kg	92 B	(82 - 122)		
	28	115	122	ng/kg	82 B	(82 - 122)	9.0	(0 - 25)
1,2,3,4,7,8,9-HpCDF	3.1	115	121	ng/kg	102 B	(78 - 138)		
	3.1	115	114	ng/kg	96 B	(78 - 138)	5.5	(0 - 25)
OCDF	18	231	223	ng/kg	89 B	(63 - 170)		
	18	231	101	ng/kg	36 a p B	(63 - 170)	75	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLL21AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 005		MXLL21AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
	72	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	88	(23 - 140)
	86	(23 - 140)
13C-OCDD	102	(17 - 157)
	98	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	86	(26 - 138)
	57	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)
	84	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L150408	**Work Order # ...:**	MXLL21AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L150408 - 005		MXLL21AE-MSD		
Prep Date .....:	12/19/12	**Analysis Date ..:**	01/04/13		
Prep Batch # ...:	2354023				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.5 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a	Spiked analyte recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
p	Relative percent difference (RPD) is outside stated control limits.
Q	Estimated maximum possible concentration (EMPC).
X	See project narrative.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H24150408

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-163829.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36889-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/21/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-512-SA6-SB-0.0-0.5 (280-36889-1)	12/11/12	07:50 Pacific		Solid			X	X		TEQs required
SL-599-SA6-SB-0.0-0.5MS (280-36889-2)	12/11/12	07:50 Pacific		Solid			X	X		TEQs required
SL-599-SA6-SB-0.0-0.5MS (280-36889-2MS)	12/11/12	07:50 Pacific	MS	Solid			X			TEQs required
SL-599-SA6-SB-0.0-0.5MS (280-36889-2MSD)	12/11/12	07:50 Pacific	MSD	Solid			X			TEQs required
SL-999-SA6-SB-0.0-0.5 (280-36889-3)	12/11/12	08:00 Pacific		Solid			X	X		TEQs required
SL-599-SA6-SB-4.0-5.0 (280-36889-4)	12/11/12	08:20 Pacific		Solid			X	X		TEQs required
SL-548-SA6-SB-0.0-0.5MS (280-36889-5)	12/11/12	08:55 Pacific		Solid			X	X		TEQs required
SL-548-SA6-SB-0.0-0.5MS (280-36889-5MS)	12/11/12	08:55 Pacific	MS	Solid			X			TEQs required
SL-548-SA6-SB-0.0-0.5MS (280-36889-5MSD)	12/11/12	08:55 Pacific	MSD	Solid			X			TEQs required
SL-948-SA6-SB-0.0-0.5 (280-36889-6)	12/11/12	09:10 Pacific		Solid			X	X		TEQs required
SL-555-SA6-SB-0.0-0.5 (280-36889-7)	12/11/12	10:25 Pacific		Solid			X	X		TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kim Watson	12-14-12 1600		David D. Flora	12-15-12 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L150408

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-163829.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36889-2
Address: 5815 Middlebrook Pike,	Due Date Requested: 12/21/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture											Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
SL-597-SA6-SB-3.5-4.5 (280-36889-8)	12/11/12	09:20 Pacific		Solid			X	X				Rec'd temp 4.1°C							1	, TEQs required
SL-605-SA6-SB-4.0-5.0 (280-36889-9)	12/11/12	11:00 Pacific		Solid			X	X				Custody Seals intact							1	, TEQs required
SL-609-SA6-SB-2.0-3.0 (280-36889-10)	12/11/12	09:40 Pacific		Solid			X	X				D.D.F 12-15-12							1	TEQs required
SL-610-SA6-SB-3.0-4.0 (280-36889-11)	12/11/12	10:20 Pacific		Solid			X	X				Fedex #							1	TEQs required
SL-556-SA6-SB-0.0-0.5 (280-36889-12)	12/11/12	12:40 Pacific		Solid			X	X				5490 3693 3778							1	TEQs required
SL-594-SA6-SB-0.0-0.5 (280-36889-13)	12/11/12	14:20 Pacific		Solid			X	X				Rec'd 1 Cooler							1	TEQs required
SL-595-SA6-SB-0.0-0.5 (280-36889-14)	12/11/12	13:10 Pacific		Solid			X	X											1	TEQs required
SL-595-SA6-SB-2.0-3.0 (280-36889-15)	12/11/12	13:40 Pacific		Solid			X	X											1	, TEQs required
SL-593-SA6-SB-0.0-0.5 (280-36889-16)	12/11/12	15:00 Pacific		Solid			X	X											1	, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12-14-12 1600		David D Flores	12-15-12 1015	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 42L150408

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90192 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12-13-12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

4.6 [illegible] 12/12/12 FP

CDM Smith

DateShipped: 12/11/2012
CarrierName: FedEx
AirbillNo: 794276213101

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121211-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street, Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-512-SA6-SB-0.0-0.5	12/11/12 07:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-599-SA6-SB-0.0-0.5MS	12/11/12 07:50	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-999-SA6-SB-0.0-0.5	12/11/12 08:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-599-SA6-SB-4.0-5.0	12/11/12 08:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-548-SA6-SB-0.0-0.5MS	12/11/12 08:55	SO	None	2 - SS-Sleeve	10 day									X																		X				MS/MSD
SL-948-SA6-SB-0.0-0.5	12/11/12 09:10	SO	None	1 - SS-Sleeve	10 day									X																		X				
SL-555-SA6-SB-0.0-0.5	12/11/12 10:25	SO	None	1 - SS-Sleeve	10 day									X																							
SL-597-SA6-SB-3.5-4.5	12/11/12 09:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-605-SA6-SB-4.0-5.0	12/11/12 11:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-609-SA6-SB-2.0-3.0	12/11/12 09:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-610-SA6-SB-3.0-4.0	12/11/12 10:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-556-SA6-SB-0.0-0.5	12/11/12 12:40	SO	None	1 - SS-Sleeve	10 day									X																							
SL-594-SA6-SB-0.0-0.5	12/11/12 14:20	SO	None	1 - SS-Sleeve	10 day									X																							
SL-595-SA6-SB-0.0-0.5	12/11/12 13:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-595-SA6-SB-2.0-3.0	12/11/12 13:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-593-SA6-SB-0.0-0.5	12/11/12 15:00	SO	None	1 - SS-Sleeve	10 day									X																							

Special Instructions:

Sampler: Mark Peters / John Halbert

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/11/12	1600	[illegible]	12/12/12	0930						

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36889-2

Login Number: 36889

List Source: TestAmerica Denver

List Number: 1

Creator: Eichelberger, Elizabeth M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Thursday, December 13, 2012 3:21 PM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-36889, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the sixteen soil samples received at the laboratory on 12/12/12.

The samples were received in acceptable condition at a temperature of 4.6ºC.

Receipt Discrepancies: None

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36889-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Elizabeth

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [089505]
Attachments: 5

SAMPLE DELIVERY GROUP

280-36945-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36945-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
12/28/2012 9:10:57 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 6
Sample Summary 7
Client Sample Results 8
QC Sample Results 9
QC Association 10
Chronicle 11
Chain of Custody 12
Receipt Checklists 14

Job ID: 280-36945-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36945-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
One equipment blank was received under Chain of Custody on December 13, 2012 at the TestAmerica Nashville laboratory. The sample was received in good condition at a temperature of 1.0°C.

The 8315 Formaldehyde analysis presented in this report was performed at TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, 615-726-0177.

The 1613B Dioxin analysis listed on the Chain of Custody is reported under a separate cover (280-36945-2) and was analyzed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065.

No anomalies were encountered during sample receipt.

HPLC / Formaldehyde - SW846 Method 8315A
Matrix spikes were not requested for prep batch 490-43850. The acceptable LCS analysis data provides evidence that the laboratory is performing the method within acceptable guidelines.

No other anomalies were observed.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Client Sample ID: EB-121212 **Lab Sample ID: 280-36945-14**

No Detections

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Method	Method Description	Protocol	Laboratory
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36945-14	EB-121212	Water	12/12/12 15:00	12/14/12 09:00

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Method: 8315A - Carbonyl Compounds by HPLC

Client Sample ID: EB-121212
Date Collected: 12/12/12 15:00
Date Received: 12/14/12 09:00

Lab Sample ID: 280-36945-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		50	22	ug/L		12/14/12 11:08	12/14/12 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Butyraldehyde	*93*		*54 - 128*	*12/14/12 11:08*	*12/14/12 17:43*	*1*

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-43850/1-A
Matrix: Water
Analysis Batch: 44339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43850

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	ND		50	22	ug/L		12/14/12 11:08	12/14/12 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Butyraldehyde	*107*		*54 - 128*	*12/14/12 11:08*	*12/14/12 16:52*	*1*

Lab Sample ID: LCS 490-43850/2-A
Matrix: Water
Analysis Batch: 44339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43850

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Formaldehyde			100	112		ug/L		112	39 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Butyraldehyde	*113*		*54 - 128*

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

HPLC/IC

Prep Batch: 43850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36945-14	EB-121212	Total/NA	Water	8315_W_Prep	
LCS 490-43850/2-A	Lab Control Sample	Total/NA	Water	8315_W_Prep	
MB 490-43850/1-A	Method Blank	Total/NA	Water	8315_W_Prep	

Analysis Batch: 44339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-36945-14	EB-121212	Total/NA	Water	8315A	43850
LCS 490-43850/2-A	Lab Control Sample	Total/NA	Water	8315A	43850
MB 490-43850/1-A	Method Blank	Total/NA	Water	8315A	43850

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-1

Client Sample ID: EB-121212

Date Collected: 12/12/12 15:00
Date Received: 12/14/12 09:00

Lab Sample ID: 280-36945-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	43850	12/14/12 11:08	CH	TAL NSH
Total/NA	Analysis	8315A		1			44339	12/14/12 17:43	HT	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

280-36945 Chain of Custody

Cooler Received/Opened On 12/13/2012 @ 0955

1. Tracking # 9352 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 14740456

2. Temperature of rep. sample or temp blank when opened: 1.0 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO..NA

4. Were custody seals on outside of cooler? YES..NO...NA

   If yes, how many and where: 1 Front / 1 Side

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EF

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) AH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AH

I certify that I attached a label with the unique LIMS number to each container (intial) AH

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES...NO...#

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/12/2012
CarrierName: FedEx
AirbillNo: 794282509352

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121212-05
Cooler #: 1
Lab: Test America-Nashville
Lab Phone: 615-726-0177
Lab Address: 2960 Foster Creighton Drive Nashville, TN 37204

Loc: 280
36945

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-121212	12/12/12 15:00	WQ	None	1 - 250 mL Amber	10 day																												X				

Special Instructions:

Sampler: Pam Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/12/2012	1600									

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36945-1

Login Number: 36945

List Source: TestAmerica Denver

List Number: 1

Creator: Eichelberger, Elizabeth M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36945-1

Login Number: 36945
List Number: 1
Creator: Himelick, John

List Source: TestAmerica Nashville
List Creation: 12/13/12 12:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 17, 2012 8:36 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36945, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chains of custody for the thirteen soil samples and one equipment blank received at the laboratories on 12/13/12 and 12/14/12.

The samples were received in acceptable condition at temperatures of 4.8℃ (Denver), 1.0℃ (Nashville) , and 0.2℃ (Knoxville).

RECEIPT DISCREPANCIES:

1.) One equipment blank was received under Chain of Custody on December 13, 2012 at the TestAmerica Knoxville laboratory. Due to a transit issue, FedEx was unable to deliver the soil samples to the Denver lab on Thursday, as scheduled. Thirteen soil samples were received under Chain of Custody on December 14, 2012.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36945-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089728]
Attachments: 7

SAMPLE DELIVERY GROUP

280-36945-2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-36945-2
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/22/2013 12:13:30 PM
Elizabeth Eichelberger
Project Manager I
elizabeth.eichelberger@testamericainc.com

Designee for

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 10
Sample Summary 11
Chronicle 12
Subcontract Data 15
Chain of Custody 74
Receipt Checklists 77

Job ID: 280-36945-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-36945-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
One equipment blank was received under Chain of Custody on December 13, 2012 at the TestAmerica Knoxville laboratory. Due to a transit issue, FedEx was unable to deliver the soil samples to the Denver lab on Thursday, as scheduled. Thirteen soil samples were received under Chain of Custody on December 14, 2012. The samples were received in good condition at temperatures of 0.2°C (Knoxville) and 4.8°C (Denver).

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

All other samples/analyses on the COC are reported under separate cover (280-36945-1).

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-611-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.070	Q B J	5.4	0.026	0.5	0.035	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.14	B J	5.4	0.047	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.20	B J	5.4	0.042	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1.6	Q B J	5.4	0.049	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDD	22	B	11	0.040	0.001	0.022	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.077	Q J	1.1	0.024	0.1	0.0077	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.054	Q B J	5.4	0.025	0.5	0.027	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.12	Q B J	5.4	0.027	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.39	Q B J	5.4	0.027	0.01	0.0039	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.055	Q B J	5.4	0.033	0.01	0.00055	ng/kg	1	☼	1613B	Total
OCDF	1.0	B J	11	0.023	0.001	0.0010	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-611-SA6-SB-3.0-4.0 — Lab Sample ID: 280-36945-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.097	B J	5.1	0.032	0.1	0.0097	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.10	Q B J	5.1	0.029	0.1	0.010	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.13	Q B J	5.1	0.037	0.01	0.0013	ng/kg	1	☼	1613B	Total
OCDD	1.1	B J	10	0.022	0.001	0.0011	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.021	Q J	1.0	0.016	0.1	0.0021	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.026	Q B J	5.1	0.016	0.5	0.013	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.081	Q B J	5.1	0.019	0.1	0.0081	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.054	Q B J	5.1	0.020	0.1	0.0054	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.052	Q B J	5.1	0.024	0.1	0.0052	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.055	Q B J	5.1	0.013	0.01	0.00055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.045	B J	5.1	0.016	0.01	0.00045	ng/kg	1	☼	1613B	Total
OCDF	0.25	B J	10	0.016	0.001	0.00025	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-614-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-36945-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.15	J	5.3	0.046	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.44	J	5.3	0.044	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.41	Q J	5.3	0.042	0.1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.1		5.3	0.075	0.01	0.091	ng/kg	1	☼	1613B	Total
OCDD	84	B	11	0.086	0.001	0.084	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.30	B J	1.1	0.044	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.081	Q J	5.3	0.040	0.05	0.0041	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.18	J	5.3	0.039	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.24	C J	5.3	0.030	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.23	Q B J	5.3	0.030	0.1	0.023	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q B J	5.3	0.033	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.16	Q B J	5.3	0.042	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.9	B J	5.3	0.035	0.01	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.12	Q B J	5.3	0.050	0.01	0.0012	ng/kg	1	☼	1613B	Total
OCDF	2.8	B J	11	0.028	0.001	0.0028	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-1014-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-4

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-1014-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-36945-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.14	Q B J	5.2	0.048	0.5	0.070	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.18	Q B J	5.2	0.068	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.47	B J	5.2	0.071	0.1	0.047	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.71	B J	5.2	0.065	0.1	0.071	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	13	B	5.2	0.079	0.01	0.13	ng/kg	1	☼	1613B	Total
OCDD	140	B	10	0.074	0.001	0.14	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.22	Q J	1.0	0.046	0.1	0.022	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.13	Q B J	5.2	0.041	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.21	Q B J	5.2	0.036	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.22	Q B J	5.2	0.038	0.1	0.022	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.21	Q B J	5.2	0.038	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.19	B J	5.2	0.048	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.9	Q B J	5.2	0.059	0.01	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.20	Q B J	5.2	0.073	0.01	0.0020	ng/kg	1	☼	1613B	Total
OCDF	7.6	B J	10	0.033	0.001	0.0076	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-602-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.31	Q B J	5.4	0.038	0.5	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.59	B J	5.4	0.067	0.1	0.059	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.4	Q B J	5.4	0.067	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.7	C B J	5.4	0.063	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	46	B	5.4	0.14	0.01	0.46	ng/kg	1	☼	1613B	Total
OCDD	580	B	11	0.16	0.001	0.58	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.25	J	1.1	0.034	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.17	Q J	5.4	0.041	0.05	0.0085	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.12	Q B J	5.4	0.037	0.5	0.060	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.57	B J	5.4	0.035	0.1	0.057	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.8	Q B J	5.4	0.036	0.1	0.18	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.22	Q B J	5.4	0.037	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.20	Q B J	5.4	0.048	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	9.5	B	5.4	0.051	0.01	0.095	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.88	B J	5.4	0.068	0.01	0.0088	ng/kg	1	☼	1613B	Total
OCDF	34	B	11	0.049	0.001	0.034	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-602-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36945-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.17	Q B J	5.2	0.031	0.5	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.36	Q B J	5.2	0.058	0.1	0.036	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.77	B J	5.2	0.062	0.1	0.077	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.88	B J	5.2	0.056	0.1	0.088	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	26	B	5.2	0.072	0.01	0.26	ng/kg	1	☼	1613B	Total
OCDD	330	B	10	0.10	0.001	0.33	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.049	Q J	1.0	0.026	0.1	0.0049	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.073	Q B J	5.2	0.029	0.5	0.036	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.33	Q B J	5.2	0.025	0.1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.0	Q B J	5.2	0.024	0.1	0.10	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.19	Q B J	5.2	0.025	0.1	0.019	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-602-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36945-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	6.1	B	5.2	0.034	0.01	0.061	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.62	B J	5.2	0.044	0.01	0.0062	ng/kg	1	☼	1613B	Total
OCDF	22	B	10	0.029	0.001	0.022	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-613-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.19	Q B J	5.4	0.034	0.5	0.095	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.19	Q B J	5.4	0.053	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.67	B J	5.4	0.055	0.1	0.067	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.69	C B J	5.4	0.051	0.1	0.069	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	13	B	5.4	0.069	0.01	0.13	ng/kg	1	☼	1613B	Total
OCDD	160	B	11	0.058	0.001	0.16	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.12	Q J	1.1	0.031	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.12	J	5.4	0.034	0.05	0.0060	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.12	B J	5.4	0.033	0.5	0.060	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.32	B J	5.4	0.030	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.36	Q B J	5.4	0.031	0.1	0.036	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.18	B J	5.4	0.032	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.21	Q B J	5.4	0.040	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.7	B J	5.4	0.031	0.01	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.30	B J	5.4	0.041	0.01	0.0030	ng/kg	1	☼	1613B	Total
OCDF	8.3	B J	11	0.031	0.001	0.0083	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-615-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.054	Q J	1.1	0.030	1	0.054	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.21	Q B J	5.5	0.041	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.33	Q B J	5.5	0.062	0.1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.0	B J	5.5	0.067	0.1	0.10	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.2	Q C B J	5.5	0.060	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	21	B	5.5	0.071	0.01	0.21	ng/kg	1	☼	1613B	Total
OCDD	250	B	11	0.098	0.001	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.26	Q B J	5.5	0.032	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.93	Q B J	5.5	0.031	0.1	0.093	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.21	Q B J	5.5	0.032	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.15	Q B J	5.5	0.041	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.3	B J	5.5	0.034	0.01	0.053	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.48	B J	5.5	0.046	0.01	0.0048	ng/kg	1	☼	1613B	Total
OCDF	16	B	11	0.031	0.001	0.016	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-615-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36945-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.032	Q B J	5.2	0.018	0.5	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.28	Q B J	5.2	0.044	0.01	0.0028	ng/kg	1	☼	1613B	Total
OCDD	3.3	B J	10	0.032	0.001	0.0033	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.038	Q B J	5.2	0.023	0.1	0.0038	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.073	Q B J	5.2	0.017	0.01	0.00073	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-615-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-36945-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8,9-HpCDF	0.036	Q B J	5.2	0.023	0.01	0.00036	ng/kg	1	☼	1613B	Total
OCDF	0.20	Q B J	10	0.019	0.001	0.00020	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-616-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.16	Q B J	5.3	0.047	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.26	Q B J	5.3	0.069	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.8	B J	5.3	0.12	0.01	0.028	ng/kg	1	☼	1613B	Total
OCDD	26	B	11	0.12	0.001	0.026	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.079	Q J	1.1	0.037	0.1	0.0079	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.12	Q B J	5.3	0.046	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.15	Q B J	5.3	0.045	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.13	Q B J	5.3	0.060	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.46	B J	5.3	0.047	0.01	0.0046	ng/kg	1	☼	1613B	Total
OCDF	1.5	B J	11	0.033	0.001	0.0015	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-616-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36945-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.018	Q J	0.99	0.020	1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.18	Q B J	5.0	0.040	0.01	0.0018	ng/kg	1	☼	1613B	Total
OCDD	1.6	B J	9.9	0.016	0.001	0.0016	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.45	Q J	0.99	0.027	0.1	0.045	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.036	Q B J	5.0	0.021	0.1	0.0036	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.068	Q B J	5.0	0.014	0.01	0.00068	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.042	Q B J	5.0	0.019	0.01	0.00042	ng/kg	1	☼	1613B	Total
OCDF	0.13	Q B J	9.9	0.017	0.001	0.00013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-621-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	1.3	B J	10	0.030	0.001	0.0013	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.030	Q B J	5.2	0.020	0.1	0.0030	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.050	Q B J	5.2	0.017	0.01	0.00050	ng/kg	1	☼	1613B	Total
OCDF	0.13	Q B J	10	0.016	0.001	0.00013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-621-SA6-SB-2.5-3.5 — Lab Sample ID: 280-36945-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.069	Q B J	5.3	0.020	0.5	0.035	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.15	B J	5.3	0.036	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.11	Q B J	5.3	0.033	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.8	B J	5.3	0.050	0.01	0.028	ng/kg	1	☼	1613B	Total
OCDD	30	B	11	0.047	0.001	0.030	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.024	Q J	1.1	0.020	0.1	0.0024	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.078	Q B J	5.3	0.021	0.1	0.0078	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.070	Q B J	5.3	0.021	0.1	0.0070	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.057	B J	5.3	0.021	0.1	0.0057	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.58	B J	5.3	0.023	0.01	0.0058	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-621-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-36945-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDF	1.5	B J	11	0.021	0.001	0.0015	ng/kg	1	☼	1613B	Total

Client Sample ID: EB-121212 — Lab Sample ID: 280-36945-14

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	3.6	B J	100	0.67	0.001	0.0036	pg/L	1		1613B	Total

This Detection Summary does not include radiochemical test results.

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-36945-1	SL-611-SA6-SB-0.0-0.5	Solid	12/12/12 08:45	12/14/12 09:00
280-36945-2	SL-611-SA6-SB-3.0-4.0	Solid	12/12/12 09:10	12/14/12 09:00
280-36945-3	SL-614-SA6-SB-0.0-0.5MS	Solid	12/12/12 08:00	12/14/12 09:00
280-36945-4	SL-1014-SA6-SB-0.0-0.5	Solid	12/12/12 08:10	12/14/12 09:00
280-36945-5	SL-602-SA6-SB-0.0-0.5	Solid	12/12/12 10:15	12/14/12 09:00
280-36945-6	SL-602-SA6-SB-4.0-5.0	Solid	12/12/12 10:35	12/14/12 09:00
280-36945-7	SL-613-SA6-SB-0.0-0.5	Solid	12/12/12 09:45	12/14/12 09:00
280-36945-8	SL-615-SA6-SB-0.0-0.5	Solid	12/12/12 11:05	12/14/12 09:00
280-36945-9	SL-615-SA6-SB-4.0-5.0	Solid	12/12/12 11:25	12/14/12 09:00
280-36945-10	SL-616-SA6-SB-0.0-0.5	Solid	12/12/12 14:00	12/14/12 09:00
280-36945-11	SL-616-SA6-SB-4.0-5.0	Solid	12/12/12 14:15	12/14/12 09:00
280-36945-12	SL-621-SA6-SB-0.0-0.5	Solid	12/12/12 13:15	12/14/12 09:00
280-36945-13	SL-621-SA6-SB-2.5-3.5	Solid	12/12/12 13:30	12/14/12 09:00
280-36945-14	EB-121212	Water	12/12/12 15:00	12/14/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-611-SA6-SB-0.0-0.5

Lab Sample ID: 280-36945-1
Date Collected: 12/12/12 08:45
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 07:31	LKM	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2354021	12/19/12 10:36	TN	TAL KNX

Client Sample ID: SL-611-SA6-SB-3.0-4.0

Lab Sample ID: 280-36945-2
Date Collected: 12/12/12 09:10
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 13:31	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:36	TN	TAL KNX

Client Sample ID: SL-614-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-36945-3
Date Collected: 12/12/12 08:00
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 94

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/17/13 18:28	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:37	TN	TAL KNX

Client Sample ID: SL-1014-SA6-SB-0.0-0.5

Lab Sample ID: 280-36945-4
Date Collected: 12/12/12 08:10
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 15:34	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:37	TN	TAL KNX

Client Sample ID: SL-602-SA6-SB-0.0-0.5

Lab Sample ID: 280-36945-5
Date Collected: 12/12/12 10:15
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 16:36	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:37	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-602-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36945-6

Date Collected: 12/12/12 10:35 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 95.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 17:38	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:37	TN	TAL KNX

Client Sample ID: SL-613-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-7

Date Collected: 12/12/12 09:45 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 18:40	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:38	TN	TAL KNX

Client Sample ID: SL-615-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-8

Date Collected: 12/12/12 11:05 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/08/13 19:42	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:38	TN	TAL KNX

Client Sample ID: SL-615-SA6-SB-4.0-5.0 — Lab Sample ID: 280-36945-9

Date Collected: 12/12/12 11:25 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 95.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/09/13 03:09	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:38	TN	TAL KNX

Client Sample ID: SL-616-SA6-SB-0.0-0.5 — Lab Sample ID: 280-36945-10

Date Collected: 12/12/12 14:00 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 92.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/09/13 04:09	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:38	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-36945-2

Client Sample ID: SL-616-SA6-SB-4.0-5.0

Lab Sample ID: 280-36945-11

Date Collected: 12/12/12 14:15
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/09/13 05:10	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:39	TN	TAL KNX

Client Sample ID: SL-621-SA6-SB-0.0-0.5

Lab Sample ID: 280-36945-12

Date Collected: 12/12/12 13:15
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/09/13 06:12	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:39	TN	TAL KNX

Client Sample ID: SL-621-SA6-SB-2.5-3.5

Lab Sample ID: 280-36945-13

Date Collected: 12/12/12 13:30
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2355033_P	12/20/12 18:00		TAL KNX
Total	Analysis	1613B		1			2355033	01/09/13 07:14	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2354021	12/19/12 10:39	TN	TAL KNX

Client Sample ID: EB-121212

Lab Sample ID: 280-36945-14

Date Collected: 12/12/12 15:00
Matrix: Water
Date Received: 12/14/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			994 mL	20 uL	3003018_P	01/03/13 16:00		TAL KNX
Total	Analysis	1613B		1			3003018	01/10/13 06:58	PMP	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L180417 Analytical Report 1

Sample Receipt Documentation 53

Total Number of Pages 58

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-36945-2

CDM - SSFL Area IV

Lot #: H2L180417

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry
Project Manager

January 22, 2013

ANALYTICAL METHODS SUMMARY

H2L180417

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L180417

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXMFV	001	SL-611-SA6-SB-0.0-0.5	12/12/12	08:45
MXMFX	002	SL-611-SA6-SB-3.0-4.0	12/12/12	09:10
MXMF1	003	SL-614-SA6-SB-0.0-0.5MS	12/12/12	08:00
MXMF2	004	SL-1014-SA6-SB-0.0-0.5	12/12/12	08:10
MXMF3	005	SL-602-SA6-SB-0.0-0.5	12/12/12	10:15
MXMF4	006	SL-602-SA6-SB-4.0-5.0	12/12/12	10:35
MXMF5	007	SL-613-SA6-SB-0.0-0.5	12/12/12	09:45
MXMF7	008	SL-615-SA6-SB-0.0-0.5	12/12/12	11:05
MXMF8	009	SL-615-SA6-SB-4.0-5.0	12/12/12	11:25
MXMF9	010	SL-616-SA6-SB-0.0-0.5	12/12/12	14:00
MXMGA	011	SL-616-SA6-SB-4.0-5.0	12/12/12	14:15
MXMGC	012	SL-621-SA6-SB-0.0-0.5	12/12/12	13:15
MXMGD	013	SL-621-SA6-SB-2.5-3.5	12/12/12	13:30
MXMGE	014	EB-121212	12/12/12	15:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L180417

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The recovery of OCDF was 56% on the laboratory control sample, MXT5V-1AC. The lower acceptance criterion is 63%. The recovery for OCDF on the matrix spike of sample SL-602-SA6-SB-0.0-0.5 was 62%. The lower acceptance criterion is 63%. The matrix spike duplicate met the acceptance criteria. The decision to report the data was made in consultation with the client.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

PROJECT NARRATIVE
H2L180417

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

PROJECT NARRATIVE
H2L180417

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample

PROJECT NARRATIVE
H2L180417

Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-611-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 001	**Work Order #....:**	MXMFV1AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	8.9
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.1	0.023	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.070 Q B J**	**5.4**	**0.026**	**1.0**	**0.070**
1,2,3,4,7,8-HxCDD	1/8/13	1	ND	5.4	0.044	0.1	0
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.14 B J**	**5.4**	**0.047**	**0.1**	**0.014**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.20 B J**	**5.4**	**0.042**	**0.1**	**0.020**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**1.6 Q B J**	**5.4**	**0.049**	**0.01**	**0.016**
OCDD	**1/8/13**	**1**	**22 B**	**11**	**0.040**	**0.0003**	**0.0066**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.077 Q J**	**1.1**	**0.024**	**0.1**	**0.0077**
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.4	0.026	0.03	0
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.054 Q B J**	**5.4**	**0.025**	**0.3**	**0.016**
1,2,3,4,7,8-HxCDF	1/8/13	1	ND	5.4	0.028	0.1	0
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.12 Q B J**	**5.4**	**0.027**	**0.1**	**0.012**
2,3,4,6,7,8-HxCDF	1/8/13	1	ND	5.4	0.028	0.1	0
1,2,3,7,8,9-HxCDF	1/8/13	1	ND	5.4	0.033	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**0.39 Q B J**	**5.4**	**0.027**	**0.01**	**0.0039**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.055 Q B J**	**5.4**	**0.033**	**0.01**	**0.00055**
OCDF	**1/8/13**	**1**	**1.0 B J**	**11**	**0.023**	**0.0003**	**0.00030**
Total TEQ Concentration							**0.17**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	90	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-611-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-611-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 002	**Work Order #....:**	MXMFX1AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	3.5
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.0	0.019	1.0	0
1,2,3,7,8-PeCDD	1/8/13	1	ND	5.1	0.019	1.0	0
1,2,3,4,7,8-HxCDD	1/8/13	1	ND	5.1	0.030	0.1	0
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.097 B J**	**5.1**	**0.032**	**0.1**	**0.0097**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.10 Q B J**	**5.1**	**0.029**	**0.1**	**0.010**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**0.13 Q B J**	**5.1**	**0.037**	**0.01**	**0.0013**
OCDD	**1/8/13**	**1**	**1.1 B J**	**10**	**0.022**	**0.0003**	**0.00033**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.021 Q J**	**1.0**	**0.016**	**0.1**	**0.0021**
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.1	0.017	0.03	0
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.026 Q B J**	**5.1**	**0.016**	**0.3**	**0.0078**
1,2,3,4,7,8-HxCDF	1/8/13	1	ND	5.1	0.019	0.1	0
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.081 Q B J**	**5.1**	**0.019**	**0.1**	**0.0081**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.054 Q B J**	**5.1**	**0.020**	**0.1**	**0.0054**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.052 Q B J**	**5.1**	**0.024**	**0.1**	**0.0052**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**0.055 Q B J**	**5.1**	**0.013**	**0.01**	**0.00055**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.045 B J**	**5.1**	**0.016**	**0.01**	**0.00045**
OCDF	**1/8/13**	**1**	**0.25 B J**	**10**	**0.016**	**0.0003**	**0.000075**
Total TEQ Concentration							**0.051**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	76	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	90	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-611-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-614-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 003	**Work Order #....:**	MXMF12AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	6.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/17/13	1	ND	1.1	0.032	1.0	0
1,2,3,7,8-PeCDD	1/17/13	1	ND	5.3	0.037	1.0	0
1,2,3,4,7,8-HxCDD	**1/17/13**	**1**	**0.15 J**	**5.3**	**0.046**	**0.1**	**0.015**
1,2,3,6,7,8-HxCDD	**1/17/13**	**1**	**0.44 J**	**5.3**	**0.044**	**0.1**	**0.044**
1,2,3,7,8,9-HxCDD	**1/17/13**	**1**	**0.41 Q J**	**5.3**	**0.042**	**0.1**	**0.041**
1,2,3,4,6,7,8-HpCDD	**1/17/13**	**1**	**9.1**	**5.3**	**0.075**	**0.01**	**0.091**
OCDD	**1/17/13**	**1**	**84 B**	**11**	**0.086**	**0.0003**	**0.025**
2,3,7,8-TCDF	**1/17/13**	**1**	**0.30 B J**	**1.1**	**0.044**	**0.1**	**0.030**
1,2,3,7,8-PeCDF	**1/17/13**	**1**	**0.081 Q J**	**5.3**	**0.040**	**0.03**	**0.0024**
2,3,4,7,8-PeCDF	**1/17/13**	**1**	**0.18 J**	**5.3**	**0.039**	**0.3**	**0.054**
1,2,3,4,7,8-HxCDF	**1/17/13**	**1**	**0.24 C J**	**5.3**	**0.030**	**0.1**	**0.024**
1,2,3,6,7,8-HxCDF	**1/17/13**	**1**	**0.23 Q B J**	**5.3**	**0.030**	**0.1**	**0.023**
2,3,4,6,7,8-HxCDF	**1/17/13**	**1**	**0.15 Q B J**	**5.3**	**0.033**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	**1/17/13**	**1**	**0.16 Q B J**	**5.3**	**0.042**	**0.1**	**0.016**
1,2,3,4,6,7,8-HpCDF	**1/17/13**	**1**	**1.9 B J**	**5.3**	**0.035**	**0.01**	**0.019**
1,2,3,4,7,8,9-HpCDF	**1/17/13**	**1**	**0.12 Q B J**	**5.3**	**0.050**	**0.01**	**0.0012**
OCDF	**1/17/13**	**1**	**2.8 B J**	**11**	**0.028**	**0.0003**	**0.00084**
Total TEQ Concentration							**0.40**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	77	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	71	(17 - 157)
13C-2,3,7,8-TCDF	71	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	97	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-614-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-1014-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 004	**Work Order #....:**	MXMF21AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	6.6
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.0	0.033	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.14 Q B J**	**5.2**	**0.048**	**1.0**	**0.14**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.18 Q B J**	**5.2**	**0.068**	**0.1**	**0.018**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.47 B J**	**5.2**	**0.071**	**0.1**	**0.047**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.71 B J**	**5.2**	**0.065**	**0.1**	**0.071**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**13 B**	**5.2**	**0.079**	**0.01**	**0.13**
OCDD	**1/8/13**	**1**	**140 B**	**10**	**0.074**	**0.0003**	**0.042**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.22 Q J**	**1.0**	**0.046**	**0.1**	**0.022**
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.2	0.044	0.03	0
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.13 Q B J**	**5.2**	**0.041**	**0.3**	**0.039**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.21 Q B J**	**5.2**	**0.036**	**0.1**	**0.021**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.22 Q B J**	**5.2**	**0.038**	**0.1**	**0.022**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.21 Q B J**	**5.2**	**0.038**	**0.1**	**0.021**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.19 B J**	**5.2**	**0.048**	**0.1**	**0.019**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**2.9 Q B J**	**5.2**	**0.059**	**0.01**	**0.029**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.20 Q B J**	**5.2**	**0.073**	**0.01**	**0.0020**
OCDF	**1/8/13**	**1**	**7.6 B J**	**10**	**0.033**	**0.0003**	**0.0023**
Total TEQ Concentration							**0.63**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(25 - 164)
13C-1,2,3,7,8-PeCDD	75	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	70	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	68	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	77	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	68	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	66	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	74	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-1014-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-602-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 005	**Work Order #....:**	MXMF31AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	7.5
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.1	0.030	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.31 Q B J**	**5.4**	**0.038**	**1.0**	**0.31**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.59 B J**	**5.4**	**0.067**	**0.1**	**0.059**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**1.4 Q B J**	**5.4**	**0.067**	**0.1**	**0.14**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**1.7**	**5.4**	**0.063**	**0.1**	**0.17**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**46 B**	**5.4**	**0.14**	**0.01**	**0.46**
OCDD	**1/8/13**	**1**	**580 B**	**11**	**0.16**	**0.0003**	**0.17**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.25 J**	**1.1**	**0.034**	**0.1**	**0.025**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.17 Q J**	**5.4**	**0.041**	**0.03**	**0.0051**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.12 Q B J**	**5.4**	**0.037**	**0.3**	**0.036**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.57 B J**	**5.4**	**0.035**	**0.1**	**0.057**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**1.8 Q B J**	**5.4**	**0.036**	**0.1**	**0.18**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.22 Q B J**	**5.4**	**0.037**	**0.1**	**0.022**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.20 Q B J**	**5.4**	**0.048**	**0.1**	**0.020**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**9.5 B**	**5.4**	**0.051**	**0.01**	**0.095**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.88 B J**	**5.4**	**0.068**	**0.01**	**0.0088**
OCDF	**1/8/13**	**1**	**34 B**	**11**	**0.049**	**0.0003**	**0.010**
Total TEQ Concentration							**1.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	79	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	73	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	76	(23 - 140)
13C-OCDD	87	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	75	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-602-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-602-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 006	**Work Order #....:**	MXMF41AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	4.6
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.0	0.023	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.17 Q B J**	**5.2**	**0.031**	**1.0**	**0.17**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.36 Q B J**	**5.2**	**0.058**	**0.1**	**0.036**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.77 B J**	**5.2**	**0.062**	**0.1**	**0.077**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.88 B J**	**5.2**	**0.056**	**0.1**	**0.088**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**26 B**	**5.2**	**0.072**	**0.01**	**0.26**
OCDD	**1/8/13**	**1**	**330 B**	**10**	**0.10**	**0.0003**	**0.099**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.049 Q J**	**1.0**	**0.026**	**0.1**	**0.0049**
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.2	0.030	0.03	0
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.073 Q B J**	**5.2**	**0.029**	**0.3**	**0.022**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.33 Q B J**	**5.2**	**0.025**	**0.1**	**0.033**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**1.0 Q B J**	**5.2**	**0.024**	**0.1**	**0.10**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.19 Q B J**	**5.2**	**0.025**	**0.1**	**0.019**
1,2,3,7,8,9-HxCDF	1/8/13	1	ND	5.2	0.031	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**6.1 B**	**5.2**	**0.034**	**0.01**	**0.061**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.62 B J**	**5.2**	**0.044**	**0.01**	**0.0062**
OCDF	**1/8/13**	**1**	**22 B**	**10**	**0.029**	**0.0003**	**0.0066**
Total TEQ Concentration							**0.98**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	85	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	95	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-602-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-613-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 007	**Work Order #....:**	MXMF51AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	7.6
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/8/13	1	ND	1.1	0.023	1.0	0
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.19 Q B J**	**5.4**	**0.034**	**1.0**	**0.19**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.19 Q B J**	**5.4**	**0.053**	**0.1**	**0.019**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**0.67 B J**	**5.4**	**0.055**	**0.1**	**0.067**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**0.69**	**5.4**	**0.051**	**0.1**	**0.069**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**13 B**	**5.4**	**0.069**	**0.01**	**0.13**
OCDD	**1/8/13**	**1**	**160 B**	**11**	**0.058**	**0.0003**	**0.048**
2,3,7,8-TCDF	**1/8/13**	**1**	**0.12 Q J**	**1.1**	**0.031**	**0.1**	**0.012**
1,2,3,7,8-PeCDF	**1/8/13**	**1**	**0.12 J**	**5.4**	**0.034**	**0.03**	**0.0036**
2,3,4,7,8-PeCDF	**1/8/13**	**1**	**0.12 B J**	**5.4**	**0.033**	**0.3**	**0.036**
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.32 B J**	**5.4**	**0.030**	**0.1**	**0.032**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.36 Q B J**	**5.4**	**0.031**	**0.1**	**0.036**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.18 B J**	**5.4**	**0.032**	**0.1**	**0.018**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.21 Q B J**	**5.4**	**0.040**	**0.1**	**0.021**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**2.7 B J**	**5.4**	**0.031**	**0.01**	**0.027**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.30 B J**	**5.4**	**0.041**	**0.01**	**0.0030**
OCDF	**1/8/13**	**1**	**8.3 B J**	**11**	**0.031**	**0.0003**	**0.0025**
Total TEQ Concentration							**0.71**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	86	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-613-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-615-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 008	**Work Order #....:**	MXMF71AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	11
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/8/13**	**1**	**0.054 Q J**	**1.1**	**0.030**	**1.0**	**0.054**
1,2,3,7,8-PeCDD	**1/8/13**	**1**	**0.21 Q B J**	**5.5**	**0.041**	**1.0**	**0.21**
1,2,3,4,7,8-HxCDD	**1/8/13**	**1**	**0.33 Q B J**	**5.5**	**0.062**	**0.1**	**0.033**
1,2,3,6,7,8-HxCDD	**1/8/13**	**1**	**1.0 B J**	**5.5**	**0.067**	**0.1**	**0.10**
1,2,3,7,8,9-HxCDD	**1/8/13**	**1**	**1.2**	**5.5**	**0.060**	**0.1**	**0.12**
1,2,3,4,6,7,8-HpCDD	**1/8/13**	**1**	**21 B**	**5.5**	**0.071**	**0.01**	**0.21**
OCDD	**1/8/13**	**1**	**250 B**	**11**	**0.098**	**0.0003**	**0.075**
2,3,7,8-TCDF	1/8/13	1	ND	1.1	0.025	0.1	0
1,2,3,7,8-PeCDF	1/8/13	1	ND	5.5	0.031	0.03	0
2,3,4,7,8-PeCDF	1/8/13	1	ND	5.5	0.030	0.3	0
1,2,3,4,7,8-HxCDF	**1/8/13**	**1**	**0.26 Q B J**	**5.5**	**0.032**	**0.1**	**0.026**
1,2,3,6,7,8-HxCDF	**1/8/13**	**1**	**0.93 Q B J**	**5.5**	**0.031**	**0.1**	**0.093**
2,3,4,6,7,8-HxCDF	**1/8/13**	**1**	**0.21 Q B J**	**5.5**	**0.032**	**0.1**	**0.021**
1,2,3,7,8,9-HxCDF	**1/8/13**	**1**	**0.15 Q B J**	**5.5**	**0.041**	**0.1**	**0.015**
1,2,3,4,6,7,8-HpCDF	**1/8/13**	**1**	**5.3 B J**	**5.5**	**0.034**	**0.01**	**0.053**
1,2,3,4,7,8,9-HpCDF	**1/8/13**	**1**	**0.48 B J**	**5.5**	**0.046**	**0.01**	**0.0048**
OCDF	**1/8/13**	**1**	**16 B**	**11**	**0.031**	**0.0003**	**0.0048**
Total TEQ Concentration							**1.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	99	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	80	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	87	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-615-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-615-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 009	**Work Order #....:**	MXMF81AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	4.3
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/9/13	1	ND	1.0	0.023	1.0	0
1,2,3,7,8-PeCDD	**1/9/13**	**1**	**0.032 Q B J**	**5.2**	**0.018**	**1.0**	**0.032**
1,2,3,4,7,8-HxCDD	1/9/13	1	ND	5.2	0.035	0.1	0
1,2,3,6,7,8-HxCDD	1/9/13	1	ND	5.2	0.037	0.1	0
1,2,3,7,8,9-HxCDD	1/9/13	1	ND	5.2	0.034	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/9/13**	**1**	**0.28 Q B J**	**5.2**	**0.044**	**0.01**	**0.0028**
OCDD	**1/9/13**	**1**	**3.3 B J**	**10**	**0.032**	**0.0003**	**0.00099**
2,3,7,8-TCDF	1/9/13	1	ND	1.0	0.019	0.1	0
1,2,3,7,8-PeCDF	1/9/13	1	ND	5.2	0.021	0.03	0
2,3,4,7,8-PeCDF	1/9/13	1	ND	5.2	0.019	0.3	0
1,2,3,4,7,8-HxCDF	**1/9/13**	**1**	**0.038 Q B J**	**5.2**	**0.023**	**0.1**	**0.0038**
1,2,3,6,7,8-HxCDF	1/9/13	1	ND	5.2	0.022	0.1	0
2,3,4,6,7,8-HxCDF	1/9/13	1	ND	5.2	0.023	0.1	0
1,2,3,7,8,9-HxCDF	1/9/13	1	ND	5.2	0.028	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/9/13**	**1**	**0.073 Q B J**	**5.2**	**0.017**	**0.01**	**0.00073**
1,2,3,4,7,8,9-HpCDF	**1/9/13**	**1**	**0.036 Q B J**	**5.2**	**0.023**	**0.01**	**0.00036**
OCDF	**1/9/13**	**1**	**0.20 Q B J**	**10**	**0.019**	**0.0003**	**0.000060**
Total TEQ Concentration							**0.041**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	86	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-615-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-616-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 010	**Work Order #....:**	MXMF91AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	7.2
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/9/13	1	ND	1.1	0.036	1.0	0
1,2,3,7,8-PeCDD	**1/9/13**	**1**	**0.16 Q B J**	**5.3**	**0.047**	**1.0**	**0.16**
1,2,3,4,7,8-HxCDD	1/9/13	1	ND	5.3	0.069	0.1	0
1,2,3,6,7,8-HxCDD	**1/9/13**	**1**	**0.26 Q B J**	**5.3**	**0.069**	**0.1**	**0.026**
1,2,3,7,8,9-HxCDD	1/9/13	1	ND	5.3	0.064	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/9/13**	**1**	**2.8 B J**	**5.3**	**0.12**	**0.01**	**0.028**
OCDD	**1/9/13**	**1**	**26 B**	**11**	**0.12**	**0.0003**	**0.0078**
2,3,7,8-TCDF	**1/9/13**	**1**	**0.079 Q J**	**1.1**	**0.037**	**0.1**	**0.0079**
1,2,3,7,8-PeCDF	1/9/13	1	ND	5.3	0.046	0.03	0
2,3,4,7,8-PeCDF	1/9/13	1	ND	5.3	0.044	0.3	0
1,2,3,4,7,8-HxCDF	**1/9/13**	**1**	**0.12 Q B J**	**5.3**	**0.046**	**0.1**	**0.012**
1,2,3,6,7,8-HxCDF	**1/9/13**	**1**	**0.15 Q B J**	**5.3**	**0.045**	**0.1**	**0.015**
2,3,4,6,7,8-HxCDF	1/9/13	1	ND	5.3	0.049	0.1	0
1,2,3,7,8,9-HxCDF	**1/9/13**	**1**	**0.13 Q B J**	**5.3**	**0.060**	**0.1**	**0.013**
1,2,3,4,6,7,8-HpCDF	**1/9/13**	**1**	**0.46 B J**	**5.3**	**0.047**	**0.01**	**0.0046**
1,2,3,4,7,8,9-HpCDF	1/9/13	1	ND	5.3	0.065	0.01	0
OCDF	**1/9/13**	**1**	**1.5 B J**	**11**	**0.033**	**0.0003**	**0.00045**
Total TEQ Concentration							**0.27**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	75	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	70	(28 - 130)
13C-1,2,3,4;6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	87	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	83	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	75	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-616-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-616-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 011	**Work Order #....:**	MXMGA1AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	3.9
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/9/13**	**1**	**0.018 Q J**	**0.99**	**0.020**	**1.0**	**0.018**
1,2,3,7,8-PeCDD	1/9/13	1	ND	5.0	0.026	1.0	0
1,2,3,4,7,8-HxCDD	1/9/13	1	ND	5.0	0.031	0.1	0
1,2,3,6,7,8-HxCDD	1/9/13	1	ND	5.0	0.033	0.1	0
1,2,3,7,8,9-HxCDD	1/9/13	1	ND	5.0	0.030	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/9/13**	**1**	**0.18 Q B J**	**5.0**	**0.040**	**0.01**	**0.0018**
OCDD	**1/9/13**	**1**	**1.6 B J**	**9.9**	**0.016**	**0.0003**	**0.00048**
2,3,7,8-TCDF	**1/9/13**	**1**	**0.45 Q J**	**0.99**	**0.027**	**0.1**	**0.045**
1,2,3,7,8-PeCDF	1/9/13	1	ND	5.0	0.020	0.03	0
2,3,4,7,8-PeCDF	1/9/13	1	ND	5.0	0.019	0.3	0
1,2,3,4,7,8-HxCDF	1/9/13	1	ND	5.0	0.022	0.1	0
1,2,3,6,7,8-HxCDF	**1/9/13**	**1**	**0.036 Q B J**	**5.0**	**0.021**	**0.1**	**0.0036**
2,3,4,6,7,8-HxCDF	1/9/13	1	ND	5.0	0.022	0.1	0
1,2,3,7,8,9-HxCDF	1/9/13	1	ND	5.0	0.026	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/9/13**	**1**	**0.068 Q B J**	**5.0**	**0.014**	**0.01**	**0.00068**
1,2,3,4,7,8,9-HpCDF	**1/9/13**	**1**	**0.042 Q B J**	**5.0**	**0.019**	**0.01**	**0.00042**
OCDF	**1/9/13**	**1**	**0.13 Q B J**	**9.9**	**0.017**	**0.0003**	**0.000039**
Total TEQ Concentration							**0.070**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	77	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	85	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	73	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	77	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-616-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-621-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 012	**Work Order #....:**	MXMGC1AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	4.4
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/9/13	1	ND	1.0	0.016	1.0	0
1,2,3,7,8-PeCDD	1/9/13	1	ND	5.2	0.013	1.0	0
1,2,3,4,7,8-HxCDD	1/9/13	1	ND	5.2	0.028	0.1	0
1,2,3,6,7,8-HxCDD	1/9/13	1	ND	5.2	0.029	0.1	0
1,2,3,7,8,9-HxCDD	1/9/13	1	ND	5.2	0.026	0.1	0
1,2,3,4,6,7,8-HpCDD	1/9/13	1	ND	5.2	0.031	0.01	0
OCDD	**1/9/13**	**1**	**1.3 B J**	**10**	**0.030**	**0.0003**	**0.00039**
2,3,7,8-TCDF	1/9/13	1	ND	1.0	0.016	0.1	0
1,2,3,7,8-PeCDF	1/9/13	1	ND	5.2	0.018	0.03	0
2,3,4,7,8-PeCDF	1/9/13	1	ND	5.2	0.017	0.3	0
1,2,3,4,7,8-HxCDF	1/9/13	1	ND	5.2	0.019	0.1	0
1,2,3,6,7,8-HxCDF	1/9/13	1	ND	5.2	0.020	0.1	0
2,3,4,6,7,8-HxCDF	**1/9/13**	**1**	**0.030 Q B J**	**5.2**	**0.020**	**0.1**	**0.0030**
1,2,3,7,8,9-HxCDF	1/9/13	1	ND	5.2	0.025	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/9/13**	**1**	**0.050 Q B J**	**5.2**	**0.017**	**0.01**	**0.00050**
1,2,3,4,7,8,9-HpCDF	1/9/13	1	ND	5.2	0.021	0.01	0
OCDF	**1/9/13**	**1**	**0.13 Q B J**	**10**	**0.016**	**0.0003**	**0.000039**
Total TEQ Concentration							**0.0039**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(25 - 164)
13C-1,2,3,7,8-PeCDD	78	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	70	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	70	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	73	(23 - 140)
13C-OCDD	78	(17 - 157)
13C-2,3,7,8-TCDF	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	71	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-621-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-621-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 013	**Work Order #....:**	MXMGD1AC	**Matrix.....:**	SO
Date Sampled....:	12/12/12	**Date Received....:**	12/18/12	**Units....:**	ng/kg
Prep Date....:	12/20/12			**Dilution Factor:**	1
Prep Batch # ....:	2355033			**Percent Moisture:**	6.8
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/9/13	1	ND	1.1	0.019	1.0	0
1,2,3,7,8-PeCDD	**1/9/13**	**1**	**0.069 Q B J**	**5.3**	**0.020**	**1.0**	**0.069**
1,2,3,4,7,8-HxCDD	1/9/13	1	ND	5.3	0.034	0.1	0
1,2,3,6,7,8-HxCDD	**1/9/13**	**1**	**0.15 B J**	**5.3**	**0.036**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDD	**1/9/13**	**1**	**0.11 Q B J**	**5.3**	**0.033**	**0.1**	**0.011**
1,2,3,4,6,7,8-HpCDD	**1/9/13**	**1**	**2.8 B J**	**5.3**	**0.050**	**0.01**	**0.028**
OCDD	**1/9/13**	**1**	**30 B**	**11**	**0.047**	**0.0003**	**0.0090**
2,3,7,8-TCDF	**1/9/13**	**1**	**0.024 Q J**	**1.1**	**0.020**	**0.1**	**0.0024**
1,2,3,7,8-PeCDF	1/9/13	1	ND	5.3	0.026	0.03	0
2,3,4,7,8-PeCDF	1/9/13	1	ND	5.3	0.026	0.3	0
1,2,3,4,7,8-HxCDF	**1/9/13**	**1**	**0.078 Q B J**	**5.3**	**0.021**	**0.1**	**0.0078**
1,2,3,6,7,8-HxCDF	**1/9/13**	**1**	**0.070 Q B J**	**5.3**	**0.021**	**0.1**	**0.0070**
2,3,4,6,7,8-HxCDF	**1/9/13**	**1**	**0.057 B J**	**5.3**	**0.021**	**0.1**	**0.0057**
1,2,3,7,8,9-HxCDF	1/9/13	1	ND	5.3	0.026	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/9/13**	**1**	**0.58 B J**	**5.3**	**0.023**	**0.01**	**0.0058**
1,2,3,4,7,8,9-HpCDF	1/9/13	1	ND	5.3	0.032	0.01	0
OCDF	**1/9/13**	**1**	**1.5 B J**	**11**	**0.021**	**0.0003**	**0.00045**
Total TEQ Concentration							**0.16**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	89	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-621-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB-121212

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L180417 - 014	**Work Order #....:**	MXMGE1AA	**Matrix.....:**	WQ
Date Sampled....:	12/12/12	**Date Received....:**	12/13/12	**Units....:**	pg/L
Prep Date....:	01/03/13			**Dilution Factor:**	1
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	994 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/10/13	1	ND	10	1.3	1.0	0
1,2,3,7,8-PeCDD	1/10/13	1	ND	50	0.97	1.0	0
1,2,3,4,7,8-HxCDD	1/10/13	1	ND	50	0.59	0.1	0
1,2,3,6,7,8-HxCDD	1/10/13	1	ND	50	0.59	0.1	0
1,2,3,7,8,9-HxCDD	1/10/13	1	ND	50	0.55	0.1	0
1,2,3,4,6,7,8-HpCDD	1/10/13	1	ND	50	0.49	0.01	0
OCDD	**1/10/13**	**1**	**3.6 B J**	**100**	**0.67**	**0.0003**	**0.0011**
2,3,7,8-TCDF	1/10/13	1	ND	10	0.91	0.1	0
1,2,3,7,8-PeCDF	1/10/13	1	ND	50	0.74	0.03	0
2,3,4,7,8-PeCDF	1/10/13	1	ND	50	0.71	0.3	0
1,2,3,4,7,8-HxCDF	1/10/13	1	ND	50	0.30	0.1	0
1,2,3,6,7,8-HxCDF	1/10/13	1	ND	50	0.35	0.1	0
2,3,4,6,7,8-HxCDF	1/10/13	1	ND	50	0.32	0.1	0
1,2,3,7,8,9-HxCDF	1/10/13	1	ND	50	0.42	0.1	0
1,2,3,4,6,7,8-HpCDF	1/10/13	1	ND	50	0.43	0.01	0
1,2,3,4,7,8,9-HpCDF	1/10/13	1	ND	50	0.55	0.01	0
OCDF	1/10/13	1	ND	100	0.68	0.0003	0
Total TEQ Concentration							**0.0011**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	(25 - 164)
13C-1,2,3,7,8-PeCDD	100	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	82	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	94	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	106	(24 - 185)
13C-2,3,4,7,8-PeCDF	91	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	86	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	85	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	83	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	92	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB-121212

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L200000 - 033B	**Work Order #....:**	MXNV81AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/20/12	**Analysis Date....:**	01/08/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2355033				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.028	ng/kg
1,2,3,7,8-PeCDD	**0.072**	**Q J**	**5.0**	**0.029**	**ng/kg**
1,2,3,4,7,8-HxCDD	**0.073**	**Q J**	**5.0**	**0.036**	**ng/kg**
1,2,3,6,7,8-HxCDD	**0.057**	**Q J**	**5.0**	**0.039**	**ng/kg**
1,2,3,7,8,9-HxCDD	**0.12**	**Q J**	**5.0**	**0.035**	**ng/kg**
1,2,3,4,6,7,8-HpCDD	**0.20**	**Q J**	**5.0**	**0.052**	**ng/kg**
OCDD	**1.7**	**J**	**10**	**0.026**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.018	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.023	ng/kg
2,3,4,7,8-PeCDF	**0.069**	**Q J**	**5.0**	**0.022**	**ng/kg**
1,2,3,4,7,8-HxCDF	**0.068**	**Q J**	**5.0**	**0.026**	**ng/kg**
1,2,3,6,7,8-HxCDF	**0.083**	**Q J**	**5.0**	**0.027**	**ng/kg**
2,3,4,6,7,8-HxCDF	**0.058**	**Q J**	**5.0**	**0.027**	**ng/kg**
1,2,3,7,8,9-HxCDF	**0.098**	**J**	**5.0**	**0.032**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.16**	**J**	**5.0**	**0.016**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.10**	**Q J**	**5.0**	**0.019**	**ng/kg**
OCDF	**0.51**	**J**	**10**	**0.021**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	25 - 164
13C-1,2,3,7,8-PeCDD	77	25 - 181
13C-1,2,3,4,7,8-HxCDD	73	32 - 141
13C-1,2,3,6,7,8-HxCDD	70	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	72	23 - 140
13C-OCDD	83	17 - 157
13C-2,3,7,8-TCDF	70	24 - 169
13C-1,2,3,7,8-PeCDF	80	24 - 185
13C-2,3,4,7,8-PeCDF	78	21 - 178
13C-1,2,3,4,7,8-HxCDF	75	26 - 152
13C-1,2,3,6,7,8-HxCDF	69	26 - 123
13C-2,3,4,6,7,8-HxCDF	75	28 - 136
13C-1,2,3,7,8,9-HxCDF	77	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	69	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	81	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L200000 - 033B	**Work Order #....:**	MXNV81AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/20/12	**Analysis Date....:**	01/08/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2355033				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

\\qknxsql1\qdsapps\SOG_Stnd\SOG_Stnd_MB_Rev1.rpt 1/21/2013

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXNV81AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L200000 - 033				
Prep Date .....:	12/20/12	**Analysis Date ..:**	01/08/13		
Prep Batch # ...:	2355033				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**20.7**	**ng/kg**	**104**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**110**	**ng/kg**	**110**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**108**	**ng/kg**	**108**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**122**	**ng/kg**	**122**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**108**	**ng/kg**	**108**	**B**	**(70 - 140)**
OCDD	**200**	**218**	**ng/kg**	**109**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.3**	**ng/kg**	**96**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**106**	**ng/kg**	**106**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**107**	**ng/kg**	**107**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**98.9**	**ng/kg**	**99**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**97.7**	**ng/kg**	**98**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**98.7**	**ng/kg**	**99**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**102**	**ng/kg**	**102**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**99.2**	**ng/kg**	**99**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**102**	**ng/kg**	**102**	**B**	**(78 - 138)**
OCDF	**200**	**143**	**ng/kg**	**71**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	(20 - 175)
13C-1,2,3,7,8-PeCDD	76	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	69	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	64	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	73	(26 - 166)
13C-OCDD	85	(13 - 199)
13C-2,3,7,8-TCDF	67	(22 - 152)
13C-1,2,3,7,8-PeCDF	77	(21 - 192)
13C-2,3,4,7,8-PeCDF	76	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	68	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	63	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	70	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	70	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	64	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	73	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.5	pg/L
1,2,3,7,8-PeCDD	**1.7**	**J**	**50**	**1.2**	**pg/L**
1,2,3,4,7,8-HxCDD	**2.7**	**Q J**	**50**	**1.0**	**pg/L**
1,2,3,6,7,8-HxCDD	**4.2**	**J**	**50**	**0.99**	**pg/L**
1,2,3,7,8,9-HxCDD	**3.5**	**Q J**	**50**	**0.95**	**pg/L**
1,2,3,4,6,7,8-HpCDD	**5.5**	**Q J**	**50**	**0.78**	**pg/L**
OCDD	**19**	**Q J**	**100**	**1.4**	**pg/L**
2,3,7,8-TCDF	ND		10	1.6	pg/L
1,2,3,7,8-PeCDF	**1.6**	**Q J**	**50**	**0.89**	**pg/L**
2,3,4,7,8-PeCDF	**1.9**	**Q J**	**50**	**0.85**	**pg/L**
1,2,3,4,7,8-HxCDF	**4.3**	**J**	**50**	**0.64**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		50	0.59	pg/L
2,3,4,6,7,8-HxCDF	**2.5**	**Q J**	**50**	**0.61**	**pg/L**
1,2,3,7,8,9-HxCDF	**2.5**	**Q J**	**50**	**0.69**	**pg/L**
1,2,3,4,6,7,8-HpCDF	**5.9**	**J**	**50**	**0.79**	**pg/L**
1,2,3,4,7,8,9-HpCDF	**6.8**	**Q J**	**50**	**1.1**	**pg/L**
OCDF	**14**	**J**	**100**	**1.1**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	25 - 164
13C-1,2,3,7,8-PeCDD	84	25 - 181
13C-1,2,3,4,7,8-HxCDD	79	32 - 141
13C-1,2,3,6,7,8-HxCDD	67	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	74	23 - 140
13C-OCDD	67	17 - 157
13C-2,3,7,8-TCDF	73	24 - 169
13C-1,2,3,7,8-PeCDF	85	24 - 185
13C-2,3,4,7,8-PeCDF	79	21 - 178
13C-1,2,3,4,7,8-HxCDF	75	26 - 152
13C-1,2,3,6,7,8-HxCDF	65	26 - 123
13C-2,3,4,6,7,8-HxCDF	73	28 - 136
13C-1,2,3,7,8,9-HxCDF	80	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	70	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	72	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXRA91AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H3A030000 - 018				
Prep Date .....:	01/03/13	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	3003018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**211**	**pg/L**	**106**		**(67 - 158)**
1,2,3,7,8-PeCDD	**1000**	**1010**	**pg/L**	**101**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**1000**	**972**	**pg/L**	**97**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**1000**	**914**	**pg/L**	**91**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**1000**	**1000**	**pg/L**	**100**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**1000**	**927**	**pg/L**	**93**	**B**	**(70 - 140)**
OCDD	**2000**	**1820**	**pg/L**	**91**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**200**	**191**	**pg/L**	**95**		**(75 - 158)**
1,2,3,7,8-PeCDF	**1000**	**963**	**pg/L**	**96**	**B**	**(80 - 134)**
2,3,4,7,8-PeCDF	**1000**	**980**	**pg/L**	**98**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**1000**	**971**	**pg/L**	**97**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**1000**	**969**	**pg/L**	**97**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**1000**	**961**	**pg/L**	**96**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**1000**	**936**	**pg/L**	**94**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 138)**
OCDF	**2000**	**1770**	**pg/L**	**89**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(20 - 175)
13C-1,2,3,7,8-PeCDD	103	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	86	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	76	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	91	(26 - 166)
13C-OCDD	98	(13 - 199)
13C-2,3,7,8-TCDF	88	(22 - 152)
13C-1,2,3,7,8-PeCDF	99	(21 - 192)
13C-2,3,4,7,8-PeCDF	99	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	87	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	75	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	84	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	94	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	84	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	92	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A100000 - 024B	**Work Order #....:**	MXT5V1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/10/13	**Analysis Date....:**	01/17/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3010024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.055	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.029	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.041	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.041	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.038	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.054	ng/kg
OCDD	**0.87**	**Q J**	**10**	**0.046**	**ng/kg**
2,3,7,8-TCDF	**0.19**	**Q J**	**1.0**	**0.045**	**ng/kg**
1,2,3,7,8-PeCDF	ND		5.0	0.032	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.031	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.033	ng/kg
1,2,3,6,7,8-HxCDF	**0.060**	**Q J**	**5.0**	**0.033**	**ng/kg**
2,3,4,6,7,8-HxCDF	**0.044**	**Q J**	**5.0**	**0.034**	**ng/kg**
1,2,3,7,8,9-HxCDF	**0.062**	**Q J**	**5.0**	**0.046**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.083**	**Q J**	**5.0**	**0.020**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.077**	**Q J**	**5.0**	**0.032**	**ng/kg**
OCDF	**0.11**	**Q J**	**10**	**0.027**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	51	25 - 164
13C-1,2,3,7,8-PeCDD	65	25 - 181
13C-1,2,3,4,7,8-HxCDD	58	32 - 141
13C-1,2,3,6,7,8-HxCDD	59	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	53	23 - 140
13C-OCDD	43	17 - 157
13C-2,3,7,8-TCDF	49	24 - 169
13C-1,2,3,7,8-PeCDF	62	24 - 185
13C-2,3,4,7,8-PeCDF	60	21 - 178
13C-1,2,3,4,7,8-HxCDF	56	26 - 152
13C-1,2,3,6,7,8-HxCDF	55	26 - 123
13C-2,3,4,6,7,8-HxCDF	57	28 - 136
13C-1,2,3,7,8,9-HxCDF	52	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	50	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	44	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A100000 - 024B	**Work Order #....:**	MXT5V1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/10/13	**Analysis Date....:**	01/17/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3010024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	59	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXT5V1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H3A100000 - 024				
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/17/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.0**	**ng/kg**	**105**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**102**	**ng/kg**	**102**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**108**	**ng/kg**	**108**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 140)**
OCDD	**200**	**210**	**ng/kg**	**105**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.9**	**ng/kg**	**100**	**B**	**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**104**	**ng/kg**	**104**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**108**	**ng/kg**	**108**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**98.7**	**ng/kg**	**99**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**97.1**	**ng/kg**	**97**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**98.6**	**ng/kg**	**99**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**97.6**	**ng/kg**	**98**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**99.1**	**ng/kg**	**99**	**B**	**(78 - 138)**
OCDF	**200**	**113**	**ng/kg**	**56**	**a B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	46	(20 - 175)
13C-1,2,3,7,8-PeCDD	56	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	50	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	52	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	48	(26 - 166)
13C-OCDD	41	(13 - 199)
13C-2,3,7,8-TCDF	46	(22 - 152)
13C-1,2,3,7,8-PeCDF	54	(21 - 192)
13C-2,3,4,7,8-PeCDF	51	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	49	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	49	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	49	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	44	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	46	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	39	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	57	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXMF11AF-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L180417 - 003		MXMF11AG-MSD		
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/17/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**ND**	**21.3**	**21.8**	**ng/kg**	**102**	**(67 - 158)**		
	ND	**21.3**	**22.7**	**ng/kg**	**107**	**(67 - 158)**	**4.1**	**(0 - 25)**
1,2,3,7,8-PeCDD	**ND**	**106**	**115**	**ng/kg**	**108**	**(70 - 142)**		
	ND	**106**	**117**	**ng/kg**	**110**	**(70 - 142)**	**1.4**	**(0 - 25)**
1,2,3,4,7,8-HxCDD	**0.15**	**106**	**114**	**ng/kg**	**107**	**(70 - 164)**		
	0.15	**106**	**112**	**ng/kg**	**105**	**(70 - 164)**	**1.7**	**(0 - 25)**
1,2,3,6,7,8-HxCDD	**0.44**	**106**	**111**	**ng/kg**	**104**	**(76 - 134)**		
	0.44	**106**	**110**	**ng/kg**	**103**	**(76 - 134)**	**1.4**	**(0 - 25)**
1,2,3,7,8,9-HxCDD	**0.41**	**106**	**115**	**ng/kg**	**108**	**(64 - 162)**		
	0.41	**106**	**112**	**ng/kg**	**105**	**(64 - 162)**	**2.8**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDD	**9.1**	**106**	**123**	**ng/kg**	**108**	**(70 - 140)**		
	9.1	**106**	**122**	**ng/kg**	**106**	**(70 - 140)**	**1.3**	**(0 - 25)**
OCDD	**84**	**213**	**314**	**ng/kg**	**108 B**	**(78 - 144)**		
	84	**213**	**303**	**ng/kg**	**103 B**	**(78 - 144)**	**3.5**	**(0 - 25)**
2,3,7,8-TCDF	**0.30**	**21.3**	**20.7**	**ng/kg**	**96 B X**	**(75 - 158)**		
	0.30	**21.3**	**20.6**	**ng/kg**	**95 B X**	**(75 - 158)**	**0.64**	**(0 - 25)**
1,2,3,7,8-PeCDF	**0.081**	**106**	**110**	**ng/kg**	**103**	**(80 - 134)**		
	0.081	**106**	**109**	**ng/kg**	**103**	**(80 - 134)**	**0.21**	**(0 - 25)**
2,3,4,7,8-PeCDF	**0.18**	**106**	**115**	**ng/kg**	**108**	**(68 - 160)**		
	0.18	**106**	**112**	**ng/kg**	**105**	**(68 - 160)**	**2.6**	**(0 - 25)**
1,2,3,4,7,8-HxCDF	**0.24**	**106**	**103**	**ng/kg**	**97**	**(72 - 134)**		
	0.24	**106**	**101**	**ng/kg**	**95**	**(72 - 134)**	**1.9**	**(0 - 25)**
1,2,3,6,7,8-HxCDF	**0.23**	**106**	**102**	**ng/kg**	**96 Q B**	**(84 - 130)**		
	0.23	**106**	**104**	**ng/kg**	**97 Q B**	**(84 - 130)**	**1.6**	**(0 - 25)**
2,3,4,6,7,8-HxCDF	**0.15**	**106**	**104**	**ng/kg**	**98 B**	**(70 - 156)**		
	0.15	**106**	**104**	**ng/kg**	**98 B**	**(70 - 156)**	**0.080**	**(0 - 25)**
1,2,3,7,8,9-HxCDF	**0.16**	**106**	**104**	**ng/kg**	**98 B**	**(78 - 130)**		
	0.16	**106**	**104**	**ng/kg**	**98 B**	**(78 - 130)**	**0.38**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDF	**1.9**	**106**	**105**	**ng/kg**	**97 B**	**(82 - 122)**		
	1.9	**106**	**105**	**ng/kg**	**97 B**	**(82 - 122)**	**0.66**	**(0 - 25)**
1,2,3,4,7,8,9-HpCDF	**0.12**	**106**	**107**	**ng/kg**	**100 B**	**(78 - 138)**		
	0.12	**106**	**101**	**ng/kg**	**95 B**	**(78 - 138)**	**5.1**	**(0 - 25)**
OCDF	**2.8**	**213**	**134**	**ng/kg**	**62 a B**	**(63 - 170)**		
	2.8	**213**	**142**	**ng/kg**	**65 B**	**(63 - 170)**	**5.3**	**(0 - 25)**

SOG_Stnd_msmsd_rev1.rpt 1/21/2013

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXMF11AF-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L180417 - 003		MXMF11AG-MSD		
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/17/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
	98	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	86	(32 - 141)
	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
	91	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
	85	(23 - 140)
13C-OCDD	70	(17 - 157)
	76	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
	96	(24 - 185)
13C-2,3,4,7,8-PeCDF	90	(21 - 178)
	96	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	82	(26 - 123)
	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
	82	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	68	(26 - 138)
	74	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)
	94	(35 - 197)

SOG_Stnd_msmsd_rev1.rpt 1/21/2013

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L180417	**Work Order # ...:**	MXMF11AF-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L180417 - 003		MXMF11AG-MSD		
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/17/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Q Estimated maximum possible concentration (EMPC).

X See project narrative.

SOG_Stnd_msmsd_rev1.rpt 1/21/2013

Sample Receipt Documentation

H2L180417

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped:	12/12/2012	Contact Name:	Pam Hartman	COC No:	20121212-04
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1
AirbillNo:	794282473623			Lab:	Test America Knoxville
				Lab Phone:	865-291-3000
				Lab Address	5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-121212	12/12/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							

RC/ND PH7

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/12/2012	1600	[signature]	12-13-12	09:30						

CUSTODY SEALS INTACT
RECEIVED AT 0.2°C
BKD 12-13-12
1 COOLER FED XP 7942 8247 3623

COC Rev 2

COC: 20121212-04, Page 1 of 1

1/22/2013

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L180417

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [illegible] Date: 12-13-12

QA026R23.doc, 022812

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

H2L180417

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-164156.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36945-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/26/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-611-SA6-SB-0.0-0.5 (280-36945-1)	12/12/12	08:45 Pacific		Solid			X	X		TEQs required
SL-611-SA6-SB-3.0-4.0 (280-36945-2)	12/12/12	09:10 Pacific		Solid			X	X		TEQs required
SL-614-SA6-SB-0.0-0.5MS (280-36945-3)	12/12/12	08:00 Pacific		Solid			X	X		, TEQs required
SL-614-SA6-SB-0.0-0.5MS (280-36945-3MS)	12/12/12	08:00 Pacific	MS	Solid			X	X		, TEQs required
SL-614-SA6-SB-0.0-0.5MS (280-36945-3MSD)	12/12/12	08:00 Pacific	MSD	Solid			X	X		TEQs required
SL-1014-SA6-SB-0.0-0.5 (280-36945-4)	12/12/12	08:10 Pacific		Solid			X	X		, TEQs required
SL-602-SA6-SB-0.0-0.5 (280-36945-5)	12/12/12	10:15 Pacific		Solid			X	X		, TEQs required
SL-602-SA6-SB-4.0-5.0 (280-36945-6)	12/12/12	10:35 Pacific		Solid			X	X		, TEQs required
SL-613-SA6-SB-0.0-0.5 (280-36945-7)	12/12/12	09:45 Pacific		Solid			X	X		, TEQs required
SL-615-SA6-SB-0.0-0.5 (280-36945-8)	12/12/12	11:05 Pacific		Solid			X	X		, TEQs required
SL-615-SA6-SB-4.0-5.0 (280-36945-9)	12/12/12	11:25 Pacific		Solid			X	X		, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12-17-12 1600	Company	Received by: [signature]	Date/Time: 12/18/12 1000	Company TA Knox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L180417

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-164156.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-36945-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/26/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-616-SA6-SB-0.0-0.5 (280-36945-10)	12/12/12	14:00 Pacific		Solid			X	X	1	, TEQs required
SL-616-SA6-SB-4.0-5.0 (280-36945-11)	12/12/12	14:15 Pacific		Solid			X	X	1	TEQs required
SL-621-SA6-SB-0.0-0.5 (280-36945-12)	12/12/12	13:15 Pacific		Solid			X	X	1	, TEQs required
SL-621-SA6-SB-2.5-3.5 (280-36945-13)	12/12/12	13:30 Pacific		Solid			X	X	1	, TEQs required
EB-121212 (280-36945-14)	12/12/12	15:00 Pacific		Water			X		2	TEQs required

1 cooler Rec'd @ 0.9°C
with custody seal intact
12/18/12
1 cooler Fedex #
5490 3693 4318

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12-17-12 1600	Company	Received by: [signature]	Date/Time: 12/18/12 1000	Company TA Knox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L180417

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12/18/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/12/2012
CarrierName: FedEx
AirbillNo: 794284857252

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121212-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331.	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-611-SA6-SB-0.0-0.5	12/12/12 08:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-611-SA6-SB-3.0-4.0	12/12/12 09:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-614-SA6-SB-0.0-0.5MS	12/12/12 08:00	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-1014-SA6-SB-0.0-0.5	12/12/12 08:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-602-SA6-SB-0.0-0.5	12/12/12 10:15	SO	None	1 - SS-Sleeve	10 day									X																							
SL-602-SA6-SB-4.0-5.0	12/12/12 10:35	SO	None	1 - 4 oz glass	10 day									X																							
SL-613-SA6-SB-0.0-0.5	12/12/12 09:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-615-SA6-SB-0.0-0.5	12/12/12 11:05	SO	None	1 - SS-Sleeve	10 day									X																							
SL-615-SA6-SB-4.0-5.0	12/12/12 11:25	SO	None	1 - 4 oz glass	10 day									X																							
SL-616-SA6-SB-0.0-0.5	12/12/12 14:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-616-SA6-SB-4.0-5.0	12/12/12 14:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-621-SA6-SB-0.0-0.5	12/12/12 13:15	SO	None	1 - SS-Sleeve	10 day									X																							
SL-621-SA6-SB-2.5-3.5	12/12/12 13:30	SO	None	1 - 4 oz glass	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/12/2012	1600	[illegible]	121412	1000						

COC Rev 2

COC: 20121212-02, Page 1 of 1

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/12/2012
CarrierName: FedEx
AirbillNo: 794282473623

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121212-04
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-121212	12/12/12 15:00	WQ	None	2 - 1 L Amber	10 day										X																						

RC/ND P197

Special Instructions:

Sampler: Pam Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/12/2012	1600	[illegible]	12-13-12	09:30						

CUSTODY SEALS INTACT
RECEIVED AT 0.2°C
BKD 12-13-12
1 COOLER FED EX 794282473623

1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Bryan Cameron Date: 12-13-12

QA026R23.doc, 022812

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-36945-2

Login Number: 36945

List Source: TestAmerica Denver

List Number: 1

Creator: Eichelberger, Elizabeth M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 17, 2012 8:36 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-36945, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chains of custody for the thirteen soil samples and one equipment blank received at the laboratories on 12/13/12 and 12/14/12.

The samples were received in acceptable condition at temperatures of 4.8℃ (Denver), 1.0℃ (Nashville) , and 0.2℃ (Knoxville).

RECEIPT DISCREPANCIES:

1.) One equipment blank was received under Chain of Custody on December 13, 2012 at the TestAmerica Knoxville laboratory. Due to a transit issue, FedEx was unable to deliver the soil samples to the Denver lab on Thursday, as scheduled. Thirteen soil samples were received under Chain of Custody on December 14, 2012.

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 8315 Formaldehyde analysis to TestAmerica's Nashville laboratory.

2.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory. Note these samples have been split into job 280-36945-2 to accommodate the extended TAT required for dioxin analysis.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089728]
Attachments: 7

SAMPLE DELIVERY GROUP

280-37012-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-37012-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/23/2013 2:17:42 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 9
Sample Summary 10
Chronicle 11
Subcontract Data 14
Chain of Custody 67
Receipt Checklists 70

Job ID: 280-37012-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-37012-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Ten soil samples and two Equipment Blanks were received under Chain of Custody on December 14, 2012. The samples were received in good condition at temperatures of 5.0°C (Denver) and 1.2°C (Knoxville).

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Qualifiers

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
C	Co-eluting isomer.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
Q	Estimated maximum possible concentration (EMPC).
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.
E	Estimated result. Result concentration exceeds the calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-585-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-37012-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.16	J	1.1	0.052	1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.2	Q B J	5.7	0.079	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.3	J	5.7	0.089	0.1	0.23	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.9	J	5.7	0.092	0.1	0.49	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	5.6	C B J	5.7	0.085	0.1	0.56	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	130	B	5.7	0.22	0.01	1.3	ng/kg	1	☼	1613B	Total
OCDD	2200	B	11	0.19	0.001	2.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.51	J	1.1	0.076	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.37	J	5.7	0.084	0.05	0.019	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.47	J	5.7	0.073	0.5	0.24	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.7	C B J	5.7	0.063	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.6	Q B J	5.7	0.063	0.1	0.16	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.73	J	5.7	0.062	0.1	0.073	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.28	Q B J	5.7	0.076	0.1	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	24	B	5.7	0.071	0.01	0.24	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.0	B J	5.7	0.089	0.01	0.020	ng/kg	1	☼	1613B	Total
OCDF	53	B	11	0.077	0.001	0.053	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-985-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.094	Q J	1.1	0.055	1	0.094	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.5	Q B J	5.7	0.077	0.5	0.75	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.9	J	5.7	0.11	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	6.6		5.7	0.12	0.1	0.66	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	7.4	C B	5.7	0.11	0.1	0.74	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	170	B	5.7	0.18	0.01	1.7	ng/kg	1	☼	1613B	Total
OCDD	2500	B	11	0.29	0.001	2.5	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.54	Q J	1.1	0.093	0.1	0.054	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.44	J	5.7	0.090	0.05	0.022	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.68	J	5.7	0.086	0.5	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.4	C B J	5.7	0.068	0.1	0.24	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.7	Q B J	5.7	0.065	0.1	0.17	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.89	J	5.7	0.065	0.1	0.089	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.34	Q B J	5.7	0.078	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	30	B	5.7	0.10	0.01	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.5	B J	5.7	0.13	0.01	0.025	ng/kg	1	☼	1613B	Total
OCDF	69	B	11	0.11	0.001	0.069	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-584-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.26	Q B J	5.6	0.054	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.65	J	5.6	0.12	0.1	0.065	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.2	Q J	5.6	0.11	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.2	C B J	5.6	0.11	0.1	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	46	B	5.6	0.16	0.01	0.46	ng/kg	1	☼	1613B	Total
OCDD	610	B	11	0.32	0.001	0.61	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.076	Q J	1.1	0.036	0.1	0.0076	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.076	Q J	5.6	0.050	0.05	0.0038	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-584-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37012-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,4,7,8-PeCDF	0.099	J	5.6	0.051	0.5	0.050	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.55	B J	5.6	0.058	0.1	0.055	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.54	Q B J	5.6	0.059	0.1	0.054	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.39	J	5.6	0.057	0.1	0.039	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.14	B Q J	5.6	0.074	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	12	B	5.6	0.055	0.01	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.56	Q B J	5.6	0.074	0.01	0.0056	ng/kg	1	☼	1613B	Total
OCDF	19	B	11	0.052	0.001	0.019	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-593-SA6-SB-4.5-5.5 — Lab Sample ID: 280-37012-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.072	B J	5.2	0.019	0.5	0.036	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.090	Q J	5.2	0.040	0.1	0.0090	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.17	J	5.2	0.043	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.21	B J	5.2	0.039	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	4.2	B J	5.2	0.063	0.01	0.042	ng/kg	1	☼	1613B	Total
OCDD	57	B	10	0.068	0.001	0.057	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.048	Q J	1.0	0.016	0.1	0.0048	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.051	Q J	5.2	0.019	0.05	0.0026	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.043	Q J	5.2	0.017	0.5	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.079	Q B J	5.2	0.022	0.1	0.0079	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.063	Q B J	5.2	0.022	0.1	0.0063	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.038	Q J	5.2	0.023	0.1	0.0038	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.053	Q B J	5.2	0.030	0.1	0.0053	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.88	B J	5.2	0.025	0.01	0.0088	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.059	Q B J	5.2	0.031	0.01	0.00059	ng/kg	1	☼	1613B	Total
OCDF	1.3	B J	10	0.019	0.001	0.0013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-682-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.19	B J	5.9	0.063	0.5	0.095	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.30	J	5.9	0.10	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.51	J	5.9	0.099	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.85	C B J	5.9	0.093	0.1	0.085	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	8.9	B	5.9	0.14	0.01	0.089	ng/kg	1	☼	1613B	Total
OCDD	120	B	12	0.22	0.001	0.12	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.98	J	1.2	0.051	0.1	0.098	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.20	Q J	5.9	0.067	0.5	0.10	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.18	Q B J	5.9	0.050	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.3	B J	5.9	0.053	0.01	0.013	ng/kg	1	☼	1613B	Total
OCDF	3.0	B J	12	0.039	0.001	0.0030	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-582-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.43	B J	5.5	0.049	0.5	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.66	J	5.5	0.070	0.1	0.066	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.0	J	5.5	0.077	0.1	0.20	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-582-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37012-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	1.9	Q B J	5.5	0.069	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	56	B	5.5	0.12	0.01	0.56	ng/kg	1	☼	1613B	Total
OCDD	1000	B	11	0.15	0.001	1.0	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.52	J	1.1	0.045	0.1	0.052	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.23	J	5.5	0.044	0.05	0.011	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.18	Q J	5.5	0.039	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.49	Q B J	5.5	0.038	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.44	Q B J	5.5	0.036	0.1	0.044	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.21	Q J	5.5	0.036	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.21	B J	5.5	0.044	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.9	Q B J	5.5	0.054	0.01	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.55	B J	5.5	0.059	0.01	0.0055	ng/kg	1	☼	1613B	Total
OCDF	15	B	11	0.044	0.001	0.015	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-682-SA6-SB-3.0-4.0 — Lab Sample ID: 280-37012-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.14	Q B J	5.1	0.023	0.5	0.070	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.11	Q J	5.1	0.049	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.10	Q B J	5.1	0.045	0.1	0.010	ng/kg	1	☼	1613B	Total
OCDD	2.0	B J	10	0.046	0.001	0.0020	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.096	Q J	1.0	0.034	0.1	0.0096	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.024	Q B J	5.1	0.017	0.01	0.00024	ng/kg	1	☼	1613B	Total
OCDF	0.093	Q B J	10	0.018	0.001	0.000093	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-685-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-37012-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.36	Q B J	5.5	0.073	0.5	0.18	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.62	Q J	5.5	0.091	0.1	0.062	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	3.0	J	5.5	0.091	0.1	0.30	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.3	C B J	5.5	0.085	0.1	0.23	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	95	B	5.5	0.32	0.01	0.95	ng/kg	1	☼	1613B	Total
OCDD	2100	B	11	0.34	0.001	2.1	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.40	J	1.1	0.078	0.1	0.040	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.37	J	5.5	0.091	0.5	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.87	B J	5.5	0.069	0.1	0.087	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.1	Q B J	5.5	0.070	0.1	0.11	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.49	J	5.5	0.075	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	10	B	5.5	0.091	0.01	0.10	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.61	Q B J	5.5	0.11	0.01	0.0061	ng/kg	1	☼	1613B	Total
OCDF	29	B	11	0.082	0.001	0.029	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-685-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37012-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.18	Q J	1.2	0.063	1	0.18	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	2.0	Q B J	5.8	0.11	0.5	1.0	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	3.7	J	5.8	0.11	0.1	0.37	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	9.9		5.8	0.12	0.1	0.99	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-685-SA6-SB-4.0-5.0 (Continued) — Lab Sample ID: 280-37012-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	9.1	B C	5.8	0.11	0.1	0.91	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	320	B	5.8	0.28	0.01	3.2	ng/kg	1	☼	1613B	Total
OCDD	5300	B E	12	0.45	0.001	5.3	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.3		1.2	0.15	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.49	Q J	5.8	0.11	0.05	0.025	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.98	J	5.8	0.10	0.5	0.49	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.7	B J	5.8	0.062	0.1	0.27	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	3.3	B J	5.8	0.061	0.1	0.33	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	1.1	J	5.8	0.060	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.35	Q B J	5.8	0.076	0.1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	40	B	5.8	0.12	0.01	0.40	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.9	B J	5.8	0.13	0.01	0.029	ng/kg	1	☼	1613B	Total
OCDF	130	B	12	0.15	0.001	0.13	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-1085-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.20	Q B J	5.5	0.060	0.5	0.10	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.42	Q J	5.5	0.078	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.1	Q J	5.5	0.081	0.1	0.21	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.5	C B J	5.5	0.075	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	77	B	5.5	0.20	0.01	0.77	ng/kg	1	☼	1613B	Total
OCDD	2300	B	11	0.26	0.001	2.3	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.17	Q J	1.1	0.063	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.18	Q J	5.5	0.076	0.05	0.0090	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.25	J	5.5	0.067	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.48	Q B J	5.5	0.045	0.1	0.048	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.46	Q B J	5.5	0.045	0.1	0.046	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.35	Q J	5.5	0.048	0.1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.17	Q B J	5.5	0.059	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.8	B	5.5	0.069	0.01	0.058	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.34	B J	5.5	0.091	0.01	0.0034	ng/kg	1	☼	1613B	Total
OCDF	21	B	11	0.14	0.001	0.021	ng/kg	1	☼	1613B	Total

Client Sample ID: EB1-121312 — Lab Sample ID: 280-37012-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	2.6	Q B J	110	0.85	0.001	0.0026	pg/L	1		1613B	Total

Client Sample ID: EB2-121312 — Lab Sample ID: 280-37012-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	3.0	Q B J	100	0.65	0.001	0.0030	pg/L	1		1613B	Total
2,3,4,7,8-PeCDF	0.54	Q B J	52	0.53	0.5	0.27	pg/L	1		1613B	Total
OCDF	1.2	Q B J	100	0.55	0.001	0.0012	pg/L	1		1613B	Total

This Detection Summary does not include radiochemical test results.

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37012-1	SL-585-SA6-SB-0.0-0.5MS	Solid	12/13/12 08:00	12/14/12 09:00
280-37012-2	SL-985-SA6-SB-0.0-0.5	Solid	12/13/12 08:10	12/14/12 09:00
280-37012-3	SL-584-SA6-SB-0.0-0.5	Solid	12/13/12 09:00	12/14/12 09:00
280-37012-4	SL-593-SA6-SB-4.5-5.5	Solid	12/13/12 10:45	12/14/12 09:00
280-37012-5	SL-682-SA6-SB-0.0-0.5	Solid	12/13/12 13:00	12/14/12 09:00
280-37012-6	SL-582-SA6-SB-0.0-0.5	Solid	12/13/12 09:35	12/14/12 09:00
280-37012-7	SL-682-SA6-SB-3.0-4.0	Solid	12/13/12 13:25	12/14/12 09:00
280-37012-8	SL-685-SA6-SB-0.0-0.5MS	Solid	12/13/12 14:10	12/14/12 09:00
280-37012-9	SL-685-SA6-SB-4.0-5.0	Solid	12/13/12 14:40	12/14/12 09:00
280-37012-10	SL-1085-SA6-SB-0.0-0.5	Solid	12/13/12 14:15	12/14/12 09:00
280-37012-11	EB1-121312	Water	12/13/12 15:00	12/14/12 09:00
280-37012-12	EB2-121312	Water	12/13/12 15:30	12/14/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-585-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-37012-1

Date Collected: 12/13/12 08:00 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 86**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 17:37	KLW	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2355032	12/20/12 10:23	TN	TAL KNX

Client Sample ID: SL-985-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-2

Date Collected: 12/13/12 08:10 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 18:38	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:23	TN	TAL KNX

Client Sample ID: SL-584-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-3

Date Collected: 12/13/12 09:00 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 02:02	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:23	TN	TAL KNX

Client Sample ID: SL-593-SA6-SB-4.5-5.5 — Lab Sample ID: 280-37012-4

Date Collected: 12/13/12 10:45 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 16:59	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:24	TN	TAL KNX

Client Sample ID: SL-682-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37012-5

Date Collected: 12/13/12 13:00 — **Matrix: Solid**
Date Received: 12/14/12 09:00 — **Percent Solids: 85**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 04:06	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:24	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: SL-582-SA6-SB-0.0-0.5

Lab Sample ID: 280-37012-6
Date Collected: 12/13/12 09:35
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 18:00	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:24	TN	TAL KNX

Client Sample ID: SL-682-SA6-SB-3.0-4.0

Lab Sample ID: 280-37012-7
Date Collected: 12/13/12 13:25
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 97.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 06:10	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:24	TN	TAL KNX

Client Sample ID: SL-685-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-37012-8
Date Collected: 12/13/12 14:10
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 07:11	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:25	TN	TAL KNX

Client Sample ID: SL-685-SA6-SB-4.0-5.0

Lab Sample ID: 280-37012-9
Date Collected: 12/13/12 14:40
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 86

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 19:02	KLW	TAL KNX
Total	Analysis	1613B		1			2362024	01/16/13 02:18	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:25	TN	TAL KNX

Client Sample ID: SL-1085-SA6-SB-0.0-0.5

Lab Sample ID: 280-37012-10
Date Collected: 12/13/12 14:15
Matrix: Solid
Date Received: 12/14/12 09:00
Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/15/13 20:03	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:25	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37012-1

Client Sample ID: EB1-121312

Lab Sample ID: 280-37012-11

Date Collected: 12/13/12 15:00
Matrix: Water
Date Received: 12/14/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			902 mL	20 uL	3003018_P	01/03/13 16:00		TAL KNX
Total	Analysis	1613B		1			3003018	01/10/13 07:59	PMP	TAL KNX

Client Sample ID: EB2-121312

Lab Sample ID: 280-37012-12

Date Collected: 12/13/12 15:30
Matrix: Water
Date Received: 12/14/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			956 mL	20 uL	3003018_P	01/03/13 16:00		TAL KNX
Total	Analysis	1613B		1			3003018	01/10/13 12:02	KBL	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L190409 Analytical Report 1

Sample Receipt Documentation 48

Total Number of Pages 52

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-37012-1

CDM - SSFL Area IV

Lot #: H2L190409

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 21, 2013

ANALYTICAL METHODS SUMMARY

H2L190409

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L190409

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXM3N	001	SL-585-SA6-SB-0.0-0.5MS	12/13/12	08:00
MXM3P	002	SL-985-SA6-SB-0.0-0.5	12/13/12	08:10
MXM3Q	003	SL-584-SA6-SB-0.0-0.5	12/13/12	09:00
MXM3R	004	SL-593-SA6-SB-4.5-5.5	12/13/12	10:45
MXM3T	005	SL-682-SA6-SB-0.0-0.5	12/13/12	13:00
MXM3V	006	SL-582-SA6-SB-0.0-0.5	12/13/12	09:35
MXM3X	007	SL-682-SA6-SB-3.0-4.0	12/13/12	13:25
MXM30	008	SL-685-SA6-SB-0.0-0.5MS	12/13/12	14:10
MXM31	009	SL-685-SA6-SB-4.0-5.0	12/13/12	14:40
MXM32	010	SL-1085-SA6-SB-0.0-0.5	12/13/12	14:15
MXM33	011	EB1-121312	12/13/12	15:00
MXM34	012	EB2-121312	12/13/12	15:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L190409

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The matrix spike and duplicate on samples SL-585-SA6-SB-0.0-0.5MS and SL-685-SA6-SB-0.0-0.5MS exhibited native OCDD recoveries outside the established QC limits. The laboratory control sample was within limits indicating a lack of sample homogeneity.

All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column. The raw data for the DB-225 analyses is included in the data package directly following the primary column analyses.

Sample SL-685-SA6-SB-4.0-5.0 exhibited native OCDD above the upper calibration level. The method does not require further action be taken; therefore, the result was reported as is with an "E" qualifier.

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:
>
> **Minimum Level**: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

PROJECT NARRATIVE
H2L190409

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

PROJECT NARRATIVE
H2L190409

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the

PROJECT NARRATIVE
H2L190409

detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-585-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 001	**Work Order #....:**	MXM3N1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	14
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/14/13**	**1**	**0.16 J**	**1.1**	**0.052**	**1.0**	**0.16**
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**1.2 Q B J**	**5.7**	**0.079**	**1.0**	**1.2**
1,2,3,4,7,8-HxCDD	**1/14/13**	**1**	**2.3 J**	**5.7**	**0.089**	**0.1**	**0.23**
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**4.9 J**	**5.7**	**0.092**	**0.1**	**0.49**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**5.6**	**5.7**	**0.085**	**0.1**	**0.56**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**130 B**	**5.7**	**0.22**	**0.01**	**1.3**
OCDD	**1/14/13**	**1**	**2200 B**	**11**	**0.19**	**0.0003**	**0.66**
2,3,7,8-TCDF	**1/14/13**	**1**	**0.51 J**	**1.1**	**0.076**	**0.1**	**0.051**
1,2,3,7,8-PeCDF	**1/14/13**	**1**	**0.37 J**	**5.7**	**0.084**	**0.03**	**0.011**
2,3,4,7,8-PeCDF	**1/14/13**	**1**	**0.47 J**	**5.7**	**0.073**	**0.3**	**0.14**
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**1.7**	**5.7**	**0.063**	**0.1**	**0.17**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**1.6 Q B J**	**5.7**	**0.063**	**0.1**	**0.16**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.73 J**	**5.7**	**0.062**	**0.1**	**0.073**
1,2,3,7,8,9-HxCDF	**1/14/13**	**1**	**0.28 Q B J**	**5.7**	**0.076**	**0.1**	**0.028**
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**24 B**	**5.7**	**0.071**	**0.01**	**0.24**
1,2,3,4,7,8,9-HpCDF	**1/14/13**	**1**	**2.0 B J**	**5.7**	**0.089**	**0.01**	**0.020**
OCDF	**1/14/13**	**1**	**53 B**	**11**	**0.077**	**0.0003**	**0.016**
Total TEQ Concentration							**5.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	79	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	70	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	67	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	64	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	81	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	65	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	79	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-585-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-985-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 002	**Work Order #....:**	MXM3P1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	13
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/14/13**	**1**	**0.094 Q J**	**1.1**	**0.055**	**1.0**	**0.094**
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**1.5 Q B J**	**5.7**	**0.077**	**1.0**	**1.5**
1,2,3,4,7,8-HxCDD	**1/14/13**	**1**	**2.9 J**	**5.7**	**0.11**	**0.1**	**0.29**
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**6.6**	**5.7**	**0.12**	**0.1**	**0.66**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**7.4 C B**	**5.7**	**0.11**	**0.1**	**0.74**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**170 B**	**5.7**	**0.18**	**0.01**	**1.7**
OCDD	**1/14/13**	**1**	**2500 B**	**11**	**0.29**	**0.0003**	**0.75**
2,3,7,8-TCDF	**1/14/13**	**1**	**0.54 Q J**	**1.1**	**0.093**	**0.1**	**0.054**
1,2,3,7,8-PeCDF	**1/14/13**	**1**	**0.44 J**	**5.7**	**0.090**	**0.03**	**0.013**
2,3,4,7,8-PeCDF	**1/14/13**	**1**	**0.68 J**	**5.7**	**0.086**	**0.3**	**0.20**
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**2.4**	**5.7**	**0.068**	**0.1**	**0.24**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**1.7 Q B J**	**5.7**	**0.065**	**0.1**	**0.17**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.89 J**	**5.7**	**0.065**	**0.1**	**0.089**
1,2,3,7,8,9-HxCDF	**1/14/13**	**1**	**0.34 Q B J**	**5.7**	**0.078**	**0.1**	**0.034**
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**30 B**	**5.7**	**0.10**	**0.01**	**0.30**
1,2,3,4,7,8,9-HpCDF	**1/14/13**	**1**	**2.5 B J**	**5.7**	**0.13**	**0.01**	**0.025**
OCDF	**1/14/13**	**1**	**69 B**	**11**	**0.11**	**0.0003**	**0.021**
Total TEQ Concentration							6.9

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	63	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	64	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	73	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-985-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-584-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 003	**Work Order #....:**	MXM3Q1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	12
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.1	0.047	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.26 Q B J**	**5.6**	**0.054**	**1.0**	**0.26**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.65 J**	**5.6**	**0.12**	**0.1**	**0.065**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**1.2 Q J**	**5.6**	**0.11**	**0.1**	**0.12**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**2.2**	**5.6**	**0.11**	**0.1**	**0.22**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**46 B**	**5.6**	**0.16**	**0.01**	**0.46**
OCDD	**1/15/13**	**1**	**610 B**	**11**	**0.32**	**0.0003**	**0.18**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.076 Q J**	**1.1**	**0.036**	**0.1**	**0.0076**
1,2,3,7,8-PeCDF	**1/15/13**	**1**	**0.076 Q J**	**5.6**	**0.050**	**0.03**	**0.0023**
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.099 J**	**5.6**	**0.051**	**0.3**	**0.030**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.55 B J**	**5.6**	**0.058**	**0.1**	**0.055**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**0.54 Q B J**	**5.6**	**0.059**	**0.1**	**0.054**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**0.39 J**	**5.6**	**0.057**	**0.1**	**0.039**
1,2,3,7,8,9-HxCDF	**1/15/13**	**1**	**0.14 B Q J**	**5.6**	**0.074**	**0.1**	**0.014**
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**12 B**	**5.6**	**0.055**	**0.01**	**0.12**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**0.56 Q B J**	**5.6**	**0.074**	**0.01**	**0.0056**
OCDF	**1/15/13**	**1**	**19 B**	**11**	**0.052**	**0.0003**	**0.0057**
Total TEQ Concentration							**1.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	74	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	77	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-584-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-593-SA6-SB-4.5-5.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 004	**Work Order #....:**	MXM3R1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	6.2
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.0	0.022	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.072 B J**	**5.2**	**0.019**	**1.0**	**0.072**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.090 Q J**	**5.2**	**0.040**	**0.1**	**0.0090**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**0.17 J**	**5.2**	**0.043**	**0.1**	**0.017**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**0.21 B J**	**5.2**	**0.039**	**0.1**	**0.021**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**4.2 B J**	**5.2**	**0.063**	**0.01**	**0.042**
OCDD	**1/15/13**	**1**	**57 B**	**10**	**0.068**	**0.0003**	**0.017**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.048 Q J**	**1.0**	**0.016**	**0.1**	**0.0048**
1,2,3,7,8-PeCDF	**1/15/13**	**1**	**0.051 Q J**	**5.2**	**0.019**	**0.03**	**0.0015**
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.043 Q J**	**5.2**	**0.017**	**0.3**	**0.013**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.079 Q B J**	**5.2**	**0.022**	**0.1**	**0.0079**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**0.063 Q B J**	**5.2**	**0.022**	**0.1**	**0.0063**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**0.038 Q J**	**5.2**	**0.023**	**0.1**	**0.0038**
1,2,3,7,8,9-HxCDF	**1/15/13**	**1**	**0.053 Q B J**	**5.2**	**0.030**	**0.1**	**0.0053**
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**0.88 B J**	**5.2**	**0.025**	**0.01**	**0.0088**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**0.059 Q B J**	**5.2**	**0.031**	**0.01**	**0.00059**
OCDF	**1/15/13**	**1**	**1.3 B J**	**10**	**0.019**	**0.0003**	**0.00039**
Total TEQ Concentration							**0.23**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	80	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	94	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	76	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-593-SA6-SB-4.5-5.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-682-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 005	**Work Order #....:**	MXM3T1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	15
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.2	0.029	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.19 B J**	**5.9**	**0.063**	**1.0**	**0.19**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.30 J**	**5.9**	**0.10**	**0.1**	**0.030**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**0.51 J**	**5.9**	**0.099**	**0.1**	**0.051**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**0.85**	**5.9**	**0.093**	**0.1**	**0.085**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**8.9 B**	**5.9**	**0.14**	**0.01**	**0.089**
OCDD	**1/15/13**	**1**	**120 B**	**12**	**0.22**	**0.0003**	**0.036**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.98 J**	**1.2**	**0.051**	**0.1**	**0.098**
1,2,3,7,8-PeCDF	1/15/13	1	ND	5.9	0.070	0.03	0
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.20 Q J**	**5.9**	**0.067**	**0.3**	**0.060**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.18 Q B J**	**5.9**	**0.050**	**0.1**	**0.018**
1,2,3,6,7,8-HxCDF	1/15/13	1	ND	5.9	0.049	0.1	0
2,3,4,6,7,8-HxCDF	1/15/13	1	ND	5.9	0.052	0.1	0
1,2,3,7,8,9-HxCDF	1/15/13	1	ND	5.9	0.062	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**1.3 B J**	**5.9**	**0.053**	**0.01**	**0.013**
1,2,3,4,7,8,9-HpCDF	1/15/13	1	ND	5.9	0.078	0.01	0
OCDF	**1/15/13**	**1**	**3.0 B J**	**12**	**0.039**	**0.0003**	**0.00090**
Total TEQ Concentration							**0.67**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	76	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-682-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-582-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 006	**Work Order #....:**	MXM3V1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	10
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.1	0.041	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.43 B J**	**5.5**	**0.049**	**1.0**	**0.43**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.66 J**	**5.5**	**0.070**	**0.1**	**0.066**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**2.0 J**	**5.5**	**0.077**	**0.1**	**0.20**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**1.9 Q B J**	**5.5**	**0.069**	**0.1**	**0.19**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**56 B**	**5.5**	**0.12**	**0.01**	**0.56**
OCDD	**1/15/13**	**1**	**1000 B**	**11**	**0.15**	**0.0003**	**0.30**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.52 J**	**1.1**	**0.045**	**0.1**	**0.052**
1,2,3,7,8-PeCDF	**1/15/13**	**1**	**0.23 J**	**5.5**	**0.044**	**0.03**	**0.0069**
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.18 Q J**	**5.5**	**0.039**	**0.3**	**0.054**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.49 Q B J**	**5.5**	**0.038**	**0.1**	**0.049**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**0.44 Q B J**	**5.5**	**0.036**	**0.1**	**0.044**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**0.21 Q J**	**5.5**	**0.036**	**0.1**	**0.021**
1,2,3,7,8,9-HxCDF	**1/15/13**	**1**	**0.21 B J**	**5.5**	**0.044**	**0.1**	**0.021**
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**4.9 Q B J**	**5.5**	**0.054**	**0.01**	**0.049**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**0.55 B J**	**5.5**	**0.059**	**0.01**	**0.0055**
OCDF	**1/15/13**	**1**	**15 B**	**11**	**0.044**	**0.0003**	**0.0045**
Total TEQ Concentration							**2.1**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	68	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	61	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	71	(24 - 169)
13C-1,2,3,7,8-PeCDF	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	63	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	60	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	70	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	68	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	59	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	77	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-582-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-682-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 007	**Work Order #....:**	MXM3X1AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	2.5
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.0	0.021	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.14 Q B J**	**5.1**	**0.023**	**1.0**	**0.14**
1,2,3,4,7,8-HxCDD	1/15/13	1	ND	5.1	0.048	0.1	0
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**0.11 Q J**	**5.1**	**0.049**	**0.1**	**0.011**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**0.10 Q B J**	**5.1**	**0.045**	**0.1**	**0.010**
1,2,3,4,6,7,8-HpCDD	1/15/13	1	ND	5.1	0.052	0.01	0
OCDD	**1/15/13**	**1**	**2.0 B J**	**10**	**0.046**	**0.0003**	**0.00060**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.096 Q J**	**1.0**	**0.034**	**0.1**	**0.0096**
1,2,3,7,8-PeCDF	1/15/13	1	ND	5.1	0.026	0.03	0
2,3,4,7,8-PeCDF	1/15/13	1	ND	5.1	0.026	0.3	0
1,2,3,4,7,8-HxCDF	1/15/13	1	ND	5.1	0.032	0.1	0
1,2,3,6,7,8-HxCDF	1/15/13	1	ND	5.1	0.030	0.1	0
2,3,4,6,7,8-HxCDF	1/15/13	1	ND	5.1	0.032	0.1	0
1,2,3,7,8,9-HxCDF	1/15/13	1	ND	5.1	0.037	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**0.024 Q B J**	**5.1**	**0.017**	**0.01**	**0.00024**
1,2,3,4,7,8,9-HpCDF	1/15/13	1	ND	5.1	0.024	0.01	0
OCDF	**1/15/13**	**1**	**0.093 Q B J**	**10**	**0.018**	**0.0003**	**0.000028**
Total TEQ Concentration							**0.17**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	78	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-682-SA6-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 008	**Work Order #....:**	MXM301AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	9.8
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Linda K. McWhirter				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.1	0.037	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.36 Q B J**	**5.5**	**0.073**	**1.0**	**0.36**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.62 Q J**	**5.5**	**0.091**	**0.1**	**0.062**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**3.0 J**	**5.5**	**0.091**	**0.1**	**0.30**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**2.3**	**5.5**	**0.085**	**0.1**	**0.23**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**95 B**	**5.5**	**0.32**	**0.01**	**0.95**
OCDD	**1/15/13**	**1**	**2100 B**	**11**	**0.34**	**0.0003**	**0.63**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.40 J**	**1.1**	**0.078**	**0.1**	**0.040**
1,2,3,7,8-PeCDF	1/15/13	1	ND	5.5	0.099	0.03	0
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.37 J**	**5.5**	**0.091**	**0.3**	**0.11**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.87 B J**	**5.5**	**0.069**	**0.1**	**0.087**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**1.1 Q B J**	**5.5**	**0.070**	**0.1**	**0.11**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**0.49 J**	**5.5**	**0.075**	**0.1**	**0.049**
1,2,3,7,8,9-HxCDF	1/15/13	1	ND	5.5	0.089	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**10 B**	**5.5**	**0.091**	**0.01**	**0.10**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**0.61 Q B J**	**5.5**	**0.11**	**0.01**	**0.0061**
OCDF	**1/15/13**	**1**	**29 B**	**11**	**0.082**	**0.0003**	**0.0087**
Total TEQ Concentration							**3.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	69	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	67	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	72	(23 - 140)
13C-OCDD	76	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	71	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 009	**Work Order #....:**	MXM311AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	14
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/15/13**	**1**	**0.18 Q J**	**1.2**	**0.063**	**1.0**	**0.18**
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**2.0 Q B J**	**5.8**	**0.11**	**1.0**	**2.0**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**3.7 J**	**5.8**	**0.11**	**0.1**	**0.37**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**9.9**	**5.8**	**0.12**	**0.1**	**0.99**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**9.1 B C**	**5.8**	**0.11**	**0.1**	**0.91**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**320 B**	**5.8**	**0.28**	**0.01**	**3.2**
OCDD	**1/15/13**	**1**	**5300 B E**	**12**	**0.45**	**0.0003**	**1.6**
2,3,7,8-TCDF	**1/16/13**	**1**	**1.3**	**1.2**	**0.15**	**0.1**	**0.13**
1,2,3,7,8-PeCDF	**1/15/13**	**1**	**0.49 Q J**	**5.8**	**0.11**	**0.03**	**0.015**
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.98 J**	**5.8**	**0.10**	**0.3**	**0.29**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**2.7 B J**	**5.8**	**0.062**	**0.1**	**0.27**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**3.3 B J**	**5.8**	**0.061**	**0.1**	**0.33**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**1.1 J**	**5.8**	**0.060**	**0.1**	**0.11**
1,2,3,7,8,9-HxCDF	**1/15/13**	**1**	**0.35 Q B J**	**5.8**	**0.076**	**0.1**	**0.035**
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**40 B**	**5.8**	**0.12**	**0.01**	**0.40**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**2.9 B J**	**5.8**	**0.13**	**0.01**	**0.029**
OCDF	**1/15/13**	**1**	**130 B**	**12**	**0.15**	**0.0003**	**0.039**
Total TEQ Concentration							**11**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	70	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	67	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	73	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	71	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	72	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-1085-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 010	**Work Order #....:**	MXM321AC	**Matrix.....:**	SO
Date Sampled....:	12/13/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	9.1
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/15/13	1	ND	1.1	0.030	1.0	0
1,2,3,7,8-PeCDD	**1/15/13**	**1**	**0.20 Q B J**	**5.5**	**0.060**	**1.0**	**0.20**
1,2,3,4,7,8-HxCDD	**1/15/13**	**1**	**0.42 Q J**	**5.5**	**0.078**	**0.1**	**0.042**
1,2,3,6,7,8-HxCDD	**1/15/13**	**1**	**2.1 Q J**	**5.5**	**0.081**	**0.1**	**0.21**
1,2,3,7,8,9-HxCDD	**1/15/13**	**1**	**1.5**	**5.5**	**0.075**	**0.1**	**0.15**
1,2,3,4,6,7,8-HpCDD	**1/15/13**	**1**	**77 B**	**5.5**	**0.20**	**0.01**	**0.77**
OCDD	**1/15/13**	**1**	**2300 B**	**11**	**0.26**	**0.0003**	**0.69**
2,3,7,8-TCDF	**1/15/13**	**1**	**0.17 Q J**	**1.1**	**0.063**	**0.1**	**0.017**
1,2,3,7,8-PeCDF	**1/15/13**	**1**	**0.18 Q J**	**5.5**	**0.076**	**0.03**	**0.0054**
2,3,4,7,8-PeCDF	**1/15/13**	**1**	**0.25 J**	**5.5**	**0.067**	**0.3**	**0.075**
1,2,3,4,7,8-HxCDF	**1/15/13**	**1**	**0.48 Q B J**	**5.5**	**0.045**	**0.1**	**0.048**
1,2,3,6,7,8-HxCDF	**1/15/13**	**1**	**0.46 Q B J**	**5.5**	**0.045**	**0.1**	**0.046**
2,3,4,6,7,8-HxCDF	**1/15/13**	**1**	**0.35 Q J**	**5.5**	**0.048**	**0.1**	**0.035**
1,2,3,7,8,9-HxCDF	**1/15/13**	**1**	**0.17 Q B J**	**5.5**	**0.059**	**0.1**	**0.017**
1,2,3,4,6,7,8-HpCDF	**1/15/13**	**1**	**5.8 B**	**5.5**	**0.069**	**0.01**	**0.058**
1,2,3,4,7,8,9-HpCDF	**1/15/13**	**1**	**0.34 B J**	**5.5**	**0.091**	**0.01**	**0.0034**
OCDF	**1/15/13**	**1**	**21 B**	**11**	**0.14**	**0.0003**	**0.0063**
Total TEQ Concentration							**2.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	70	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	73	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	86	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	75	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	69	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	74	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	71	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-1085-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB1-121312

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 011	**Work Order #....:**	MXM331AA	**Matrix.....:**	WQ
Date Sampled....:	12/13/12	**Date Received....:**	12/14/12	**Units....:**	pg/L
Prep Date....:	01/03/13			**Dilution Factor:**	1
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	902 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/10/13	1	ND	11	1.5	1.0	0
1,2,3,7,8-PeCDD	1/10/13	1	ND	55	1.1	1.0	0
1,2,3,4,7,8-HxCDD	1/10/13	1	ND	55	0.53	0.1	0
1,2,3,6,7,8-HxCDD	1/10/13	1	ND	55	0.51	0.1	0
1,2,3,7,8,9-HxCDD	1/10/13	1	ND	55	0.49	0.1	0
1,2,3,4,6,7,8-HpCDD	1/10/13	1	ND	55	0.70	0.01	0
OCDD	**1/10/13**	**1**	**2.6 Q B J**	**110**	**0.85**	**0.0003**	**0.00078**
2,3,7,8-TCDF	1/10/13	1	ND	11	0.91	0.1	0
1,2,3,7,8-PeCDF	1/10/13	1	ND	55	0.75	0.03	0
2,3,4,7,8-PeCDF	1/10/13	1	ND	55	0.77	0.3	0
1,2,3,4,7,8-HxCDF	1/10/13	1	ND	55	0.35	0.1	0
1,2,3,6,7,8-HxCDF	1/10/13	1	ND	55	0.37	0.1	0
2,3,4,6,7,8-HxCDF	1/10/13	1	ND	55	0.34	0.1	0
1,2,3,7,8,9-HxCDF	1/10/13	1	ND	55	0.49	0.1	0
1,2,3,4,6,7,8-HpCDF	1/10/13	1	ND	55	0.54	0.01	0
1,2,3,4,7,8,9-HpCDF	1/10/13	1	ND	55	0.73	0.01	0
OCDF	1/10/13	1	ND	110	0.89	0.0003	0
Total TEQ Concentration							**0.00078**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	94	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	88	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	86	(24 - 169)
13C-1,2,3,7,8-PeCDF	109	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	93	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	84	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	89	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	87	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	86	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	88	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB1-121312

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB2-121312

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190409 - 012	**Work Order #....:**	MXM341AA	**Matrix.....:**	WQ
Date Sampled....:	12/13/12	**Date Received....:**	12/14/12	**Units....:**	pg/L
Prep Date....:	01/03/13			**Dilution Factor:**	1
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	956 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/10/13	1	ND	10	1.2	1.0	0
1,2,3,7,8-PeCDD	1/10/13	1	ND	52	0.85	1.0	0
1,2,3,4,7,8-HxCDD	1/10/13	1	ND	52	0.52	0.1	0
1,2,3,6,7,8-HxCDD	1/10/13	1	ND	52	0.50	0.1	0
1,2,3,7,8,9-HxCDD	1/10/13	1	ND	52	0.48	0.1	0
1,2,3,4,6,7,8-HpCDD	1/10/13	1	ND	52	0.57	0.01	0
OCDD	**1/10/13**	**1**	**3.0 Q B J**	**100**	**0.65**	**0.0003**	**0.00090**
2,3,7,8-TCDF	1/10/13	1	ND	10	0.81	0.1	0
1,2,3,7,8-PeCDF	1/10/13	1	ND	52	0.59	0.03	0
2,3,4,7,8-PeCDF	**1/10/13**	**1**	**0.54 Q B J**	**52**	**0.53**	**0.3**	**0.16**
1,2,3,4,7,8-HxCDF	1/10/13	1	ND	52	0.32	0.1	0
1,2,3,6,7,8-HxCDF	1/10/13	1	ND	52	0.36	0.1	0
2,3,4,6,7,8-HxCDF	1/10/13	1	ND	52	0.31	0.1	0
1,2,3,7,8,9-HxCDF	1/10/13	1	ND	52	0.42	0.1	0
1,2,3,4,6,7,8-HpCDF	1/10/13	1	ND	52	0.37	0.01	0
1,2,3,4,7,8,9-HpCDF	1/10/13	1	ND	52	0.54	0.01	0
OCDF	**1/10/13**	**1**	**1.2 Q B J**	**100**	**0.55**	**0.0003**	**0.00036**
Total TEQ Concentration							**0.16**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	88	(25 - 164)
13C-1,2,3,7,8-PeCDD	99	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	90	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	93	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	103	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	91	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	86	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	86	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	94	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB2-121312

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	103	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L270000 - 024B	**Work Order #....:**	MXQAL1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/27/12	**Analysis Date....:**	01/11/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2362024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.033	ng/kg
1,2,3,7,8-PeCDD	**0.062**	**Q J**	**5.0**	**0.034**	**ng/kg**
1,2,3,4,7,8-HxCDD	ND		5.0	0.051	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.052	ng/kg
1,2,3,7,8,9-HxCDD	**0.16**	**J**	**5.0**	**0.048**	**ng/kg**
1,2,3,4,6,7,8-HpCDD	**0.38**	**J**	**5.0**	**0.076**	**ng/kg**
OCDD	**8.5**	**J**	**10**	**0.056**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.033	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.027	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.025	ng/kg
1,2,3,4,7,8-HxCDF	**0.095**	**Q J**	**5.0**	**0.035**	**ng/kg**
1,2,3,6,7,8-HxCDF	**0.069**	**Q J**	**5.0**	**0.033**	**ng/kg**
2,3,4,6,7,8-HxCDF	ND		5.0	0.032	ng/kg
1,2,3,7,8,9-HxCDF	**0.12**	**Q J**	**5.0**	**0.041**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.078**	**Q J**	**5.0**	**0.021**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.11**	**Q J**	**5.0**	**0.027**	**ng/kg**
OCDF	**0.29**	**Q J**	**10**	**0.029**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	25 - 164
13C-1,2,3,7,8-PeCDD	74	25 - 181
13C-1,2,3,4,7,8-HxCDD	72	32 - 141
13C-1,2,3,6,7,8-HxCDD	69	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	70	23 - 140
13C-OCDD	79	17 - 157
13C-2,3,7,8-TCDF	75	24 - 169
13C-1,2,3,7,8-PeCDF	78	24 - 185
13C-2,3,4,7,8-PeCDF	76	21 - 178
13C-1,2,3,4,7,8-HxCDF	73	26 - 152
13C-1,2,3,6,7,8-HxCDF	71	26 - 123
13C-2,3,4,6,7,8-HxCDF	79	28 - 136
13C-1,2,3,7,8,9-HxCDF	76	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	65	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	75	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L270000 - 024B	**Work Order #....:**	MXQAL1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/27/12	**Analysis Date....:**	01/11/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2362024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	76	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXQAL1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L270000 - 024				
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.4**	**ng/kg**	**107**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**110**	**ng/kg**	**110**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**108**	**ng/kg**	**108**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**106**	**ng/kg**	**106**	**B**	**(70 - 140)**
OCDD	**200**	**224**	**ng/kg**	**112**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.1**	**ng/kg**	**100**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**105**	**ng/kg**	**105**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**107**	**ng/kg**	**107**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**97.0**	**ng/kg**	**97**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**97.2**	**ng/kg**	**97**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**98.0**	**ng/kg**	**98**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**103**	**ng/kg**	**103**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**100**	**ng/kg**	**100**	**B**	**(78 - 138)**
OCDF	**200**	**175**	**ng/kg**	**87**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	(20 - 175)
13C-1,2,3,7,8-PeCDD	80	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	78	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	75	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	79	(26 - 166)
13C-OCDD	76	(13 - 199)
13C-2,3,7,8-TCDF	69	(22 - 152)
13C-1,2,3,7,8-PeCDF	81	(21 - 192)
13C-2,3,4,7,8-PeCDF	80	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	77	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	73	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	78	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	72	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	73	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	76	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	74	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM3N1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 001		MXM3N1AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	0.16	23.0	23.7	ng/kg	103	(67 - 158)		
	0.16	23.0	24.6	ng/kg	106	(67 - 158)	3.7	(0 - 25)
1,2,3,7,8-PeCDD	1.2	115	123	ng/kg	106 B	(70 - 142)		
	1.2	115	120	ng/kg	104 B	(70 - 142)	2.1	(0 - 25)
1,2,3,4,7,8-HxCDD	2.3	115	123	ng/kg	105	(70 - 164)		
	2.3	115	120	ng/kg	103	(70 - 164)	1.8	(0 - 25)
1,2,3,6,7,8-HxCDD	4.9	115	124	ng/kg	103	(76 - 134)		
	4.9	115	122	ng/kg	102	(76 - 134)	1.6	(0 - 25)
1,2,3,7,8,9-HxCDD	5.6	115	136	ng/kg	113 B	(64 - 162)		
	5.6	115	129	ng/kg	108 B	(64 - 162)	4.6	(0 - 25)
1,2,3,4,6,7,8-HpCDD	130	115	248	ng/kg	100 B	(70 - 140)		
	130	115	247	ng/kg	99 B	(70 - 140)	0.16	(0 - 25)
OCDD	2200	230	2190	ng/kg	16 a B	(78 - 144)		
	2200	230	1840	ng/kg	0.0 a B	(78 - 144)	0.0	(0 - 25)
2,3,7,8-TCDF	0.51	23.0	23.6	ng/kg	101 X	(75 - 158)		
	0.51	23.0	24.9	ng/kg	106 X	(75 - 158)	5.3	(0 - 25)
1,2,3,7,8-PeCDF	0.37	115	121	ng/kg	105	(80 - 134)		
	0.37	115	121	ng/kg	105	(80 - 134)	0.31	(0 - 25)
2,3,4,7,8-PeCDF	0.47	115	123	ng/kg	107	(68 - 160)		
	0.47	115	115	ng/kg	99	(68 - 160)	7.4	(0 - 25)
1,2,3,4,7,8-HxCDF	1.7	115	113	ng/kg	97 B	(72 - 134)		
	1.7	115	109	ng/kg	93 B	(72 - 134)	3.9	(0 - 25)
1,2,3,6,7,8-HxCDF	1.6	115	111	ng/kg	95 B	(84 - 130)		
	1.6	115	117	ng/kg	100 B	(84 - 130)	4.8	(0 - 25)
2,3,4,6,7,8-HxCDF	0.73	115	114	ng/kg	98	(70 - 156)		
	0.73	115	114	ng/kg	98	(70 - 156)	0.060	(0 - 25)
1,2,3,7,8,9-HxCDF	0.28	115	117	ng/kg	101 B	(78 - 130)		
	0.28	115	114	ng/kg	99 B	(78 - 130)	2.1	(0 - 25)
1,2,3,4,6,7,8-HpCDF	24	115	139	ng/kg	100 B	(82 - 122)		
	24	115	135	ng/kg	97 B	(82 - 122)	2.7	(0 - 25)
1,2,3,4,7,8,9-HpCDF	2.0	115	118	ng/kg	101 B	(78 - 138)		
	2.0	115	111	ng/kg	95 B	(78 - 138)	6.1	(0 - 25)
OCDF	53	230	229	ng/kg	77 B	(63 - 170)		
	53	230	270	ng/kg	94 B	(63 - 170)	16	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM3N1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 001		MXM3N1AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(25 - 164)
	71	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	69	(32 - 141)
	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	65	(28 - 130)
	65	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	73	(23 - 140)
	65	(23 - 140)
13C-OCDD	73	(17 - 157)
	66	(17 - 157)
13C-2,3,7,8-TCDF	67	(24 - 169)
	70	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
	78	(24 - 185)
13C-2,3,4,7,8-PeCDF	78	(21 - 178)
	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	66	(26 - 152)
	68	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
	61	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	71	(28 - 136)
	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	67	(29 - 147)
	67	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
	59	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)
	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	74	(35 - 197)
	74	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM3N1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 001		MXM3N1AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

X See project narrative.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM301AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 008		MXM301AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/15/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	ND	22.2	23.2	ng/kg	105	(67 - 158)		
	ND	22.2	22.5	ng/kg	102	(67 - 158)	2.7	(0 - 25)
1,2,3,7,8-PeCDD	0.36	111	120	ng/kg	108 B	(70 - 142)		
	0.36	111	124	ng/kg	112 B	(70 - 142)	2.9	(0 - 25)
1,2,3,4,7,8-HxCDD	0.62	111	119	ng/kg	107	(70 - 164)		
	0.62	111	118	ng/kg	106	(70 - 164)	0.91	(0 - 25)
1,2,3,6,7,8-HxCDD	3.0	111	118	ng/kg	104	(76 - 134)		
	3.0	111	121	ng/kg	106	(76 - 134)	2.1	(0 - 25)
1,2,3,7,8,9-HxCDD	2.3	111	124	ng/kg	110 B	(64 - 162)		
	2.3	111	128	ng/kg	113 B	(64 - 162)	2.8	(0 - 25)
1,2,3,4,6,7,8-HpCDD	95	111	211	ng/kg	105 B	(70 - 140)		
	95	111	200	ng/kg	95 B	(70 - 140)	5.5	(0 - 25)
OCDD	2100	222	2570	ng/kg	213 a B	(78 - 144)		
	2100	222	2160	ng/kg	28 a B	(78 - 144)	17	(0 - 25)
2,3,7,8-TCDF	0.40	22.2	22.2	ng/kg	98 X	(75 - 158)		
	0.40	22.2	22.0	ng/kg	97 X	(75 - 158)	1.1	(0 - 25)
1,2,3,7,8-PeCDF	ND	111	118	ng/kg	107	(80 - 134)		
	ND	111	119	ng/kg	107	(80 - 134)	0.57	(0 - 25)
2,3,4,7,8-PeCDF	0.37	111	116	ng/kg	104	(68 - 160)		
	0.37	111	117	ng/kg	105	(68 - 160)	1.2	(0 - 25)
1,2,3,4,7,8-HxCDF	0.87	111	108	ng/kg	97 B	(72 - 134)		
	0.87	111	110	ng/kg	98 B	(72 - 134)	1.5	(0 - 25)
1,2,3,6,7,8-HxCDF	1.1	111	109	ng/kg	97 B	(84 - 130)		
	1.1	111	112	ng/kg	100 B	(84 - 130)	2.7	(0 - 25)
2,3,4,6,7,8-HxCDF	0.49	111	109	ng/kg	98	(70 - 156)		
	0.49	111	113	ng/kg	101	(70 - 156)	2.9	(0 - 25)
1,2,3,7,8,9-HxCDF	ND	111	112	ng/kg	101 B	(78 - 130)		
	ND	111	112	ng/kg	101 B	(78 - 130)	0.67	(0 - 25)
1,2,3,4,6,7,8-HpCDF	10	111	121	ng/kg	100 B	(82 - 122)		
	10	111	124	ng/kg	103 B	(82 - 122)	2.7	(0 - 25)
1,2,3,4,7,8,9-HpCDF	0.61	111	111	ng/kg	100 B	(78 - 138)		
	0.61	111	111	ng/kg	99 B	(78 - 138)	0.27	(0 - 25)
OCDF	29	222	239	ng/kg	94 B	(63 - 170)		
	29	222	202	ng/kg	78 B	(63 - 170)	17	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM301AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 008		MXM301AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/15/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	70	(32 - 141)
	72	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	65	(28 - 130)
	66	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
	75	(23 - 140)
13C-OCDD	62	(17 - 157)
	71	(17 - 157)
13C-2,3,7,8-TCDF	69	(24 - 169)
	71	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
	82	(24 - 185)
13C-2,3,4,7,8-PeCDF	83	(21 - 178)
	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	68	(26 - 152)
	68	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	64	(26 - 123)
	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	69	(28 - 136)
	71	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	66	(29 - 147)
	67	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	60	(28 - 143)
	63	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)
	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	79	(35 - 197)
	79	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXM301AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L190409 - 008		MXM301AE-MSD		
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/15/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

X See project narrative.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.5	pg/L
1,2,3,7,8-PeCDD	**1.7**	**J**	**50**	**1.2**	**pg/L**
1,2,3,4,7,8-HxCDD	**2.7**	**Q J**	**50**	**1.0**	**pg/L**
1,2,3,6,7,8-HxCDD	**4.2**	**J**	**50**	**0.99**	**pg/L**
1,2,3,7,8,9-HxCDD	**3.5**	**Q J**	**50**	**0.95**	**pg/L**
1,2,3,4,6,7,8-HpCDD	**5.5**	**Q J**	**50**	**0.78**	**pg/L**
OCDD	**19**	**Q J**	**100**	**1.4**	**pg/L**
2,3,7,8-TCDF	ND		10	1.6	pg/L
1,2,3,7,8-PeCDF	**1.6**	**Q J**	**50**	**0.89**	**pg/L**
2,3,4,7,8-PeCDF	**1.9**	**Q J**	**50**	**0.85**	**pg/L**
1,2,3,4,7,8-HxCDF	**4.3**	**J**	**50**	**0.64**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		50	0.59	pg/L
2,3,4,6,7,8-HxCDF	**2.5**	**Q J**	**50**	**0.61**	**pg/L**
1,2,3,7,8,9-HxCDF	**2.5**	**Q J**	**50**	**0.69**	**pg/L**
1,2,3,4,6,7,8-HpCDF	**5.9**	**J**	**50**	**0.79**	**pg/L**
1,2,3,4,7,8,9-HpCDF	**6.8**	**Q J**	**50**	**1.1**	**pg/L**
OCDF	**14**	**J**	**100**	**1.1**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	25 - 164
13C-1,2,3,7,8-PeCDD	84	25 - 181
13C-1,2,3,4,7,8-HxCDD	79	32 - 141
13C-1,2,3,6,7,8-HxCDD	67	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	74	23 - 140
13C-OCDD	67	17 - 157
13C-2,3,7,8-TCDF	73	24 - 169
13C-1,2,3,7,8-PeCDF	85	24 - 185
13C-2,3,4,7,8-PeCDF	79	21 - 178
13C-1,2,3,4,7,8-HxCDF	75	26 - 152
13C-1,2,3,6,7,8-HxCDF	65	26 - 123
13C-2,3,4,6,7,8-HxCDF	73	28 - 136
13C-1,2,3,7,8,9-HxCDF	80	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	70	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	72	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190409	**Work Order # ...:**	MXRA91AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H3A030000 - 018				
Prep Date .....:	01/03/13	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	3003018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**211**	**pg/L**	**106**		**(67 - 158)**
1,2,3,7,8-PeCDD	**1000**	**1010**	**pg/L**	**101**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**1000**	**972**	**pg/L**	**97**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**1000**	**914**	**pg/L**	**91**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**1000**	**1000**	**pg/L**	**100**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**1000**	**927**	**pg/L**	**93**	**B**	**(70 - 140)**
OCDD	**2000**	**1820**	**pg/L**	**91**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**200**	**191**	**pg/L**	**95**		**(75 - 158)**
1,2,3,7,8-PeCDF	**1000**	**963**	**pg/L**	**96**	**B**	**(80 - 134)**
2,3,4,7,8-PeCDF	**1000**	**980**	**pg/L**	**98**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**1000**	**971**	**pg/L**	**97**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**1000**	**969**	**pg/L**	**97**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**1000**	**961**	**pg/L**	**96**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**1000**	**936**	**pg/L**	**94**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 138)**
OCDF	**2000**	**1770**	**pg/L**	**89**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(20 - 175)
13C-1,2,3,7,8-PeCDD	103	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	86	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	76	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	91	(26 - 166)
13C-OCDD	98	(13 - 199)
13C-2,3,7,8-TCDF	88	(22 - 152)
13C-1,2,3,7,8-PeCDF	99	(21 - 192)
13C-2,3,4,7,8-PeCDF	99	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	87	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	75	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	84	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	94	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	84	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	92	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

280-37012-1

H2L190404

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/13/2012
CarrierName: FedEx
AirbillNo: 794293472440

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121213-04
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTS 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-121312	12/13/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							RC/ND pH=7
EB2-121312	12/13/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							RC/ND pH=7

Special Instructions:

Sampler: Pa Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/13/12	1400	Ryan Henry	12/14/12	1000						

REC. @ 1.2°C
CUSTODY SEAL INTACT
1 COOLER RH 12/14/12
FED EX #794293472440

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1721190409

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 12/14/12

QA026R23.doc, 022812

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

1 cooler Rec'd @ 1.4
with custody seal intact
JH 12/19/12
1 cooler Fed X # 5490 3693 4903

Chain of Custody Record

1422190409

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-164410.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-37012-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/26/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-585-SA6-SB-0.0-0.5MS (280-37012-1)	12/13/12	08:00 Pacific		Solid			X	X	1	TEQs required
SL-585-SA6-SB-0.0-0.5MS (280-37012-1MS)	12/13/12	08:00 Pacific	MS	Solid			X		1	TEQs required
SL-585-SA6-SB-0.0-0.5MS (280-37012-1MSD)	12/13/12	08:00 Pacific	MSD	Solid			X		1	TEQs required
SL-985-SA6-SB-0.0-0.5 (280-37012-2)	12/13/12	08:10 Pacific		Solid			X	X	1	TEQs required
SL-584-SA6-SB-0.0-0.5 (280-37012-3)	12/13/12	09:00 Pacific		Solid			X	X	1	, TEQs required
SL-593-SA6-SB-4.5-5.5 (280-37012-4)	12/13/12	10:45 Pacific		Solid			X	X	1	TEQs required
SL-682-SA6-SB-0.0-0.5 (280-37012-5)	12/13/12	13:00 Pacific		Solid			X	X	1	TEQs required
SL-582-SA6-SB-0.0-0.5 (280-37012-6)	12/13/12	09:35 Pacific		Solid			X	X	1	, TEQs required
SL-682-SA6-SB-3.0-4.0 (280-37012-7)	12/13/12	13:25 Pacific		Solid			X	X	1	, TEQs required
SL-685-SA6-SB-0.0-0.5MS (280-37012-8)	12/13/12	14:10 Pacific		Solid			X	X	1	TEQs required
SL-685-SA6-SB-0.0-0.5MS (280-37012-8MS)	12/13/12	14:10 Pacific	MS	Solid			X		1	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12/18/12 1600	Company: TA	Received by: [signature]	Date/Time: 12/19/12 0940	Company: TA Knox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L190404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-164410.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 280-37012-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/26/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-685-SA6-SB-0.0-0.5MS (280-37012-8MSD)	12/13/12	14:10 Pacific	MSD	Solid			X		1	TEQs required
SL-685-SA6-SB-4.0-5.0 (280-37012-9)	12/13/12	14:40 Pacific		Solid			X	X	1	, TEQs required
SL-1085-SA6-SB-0.0-0.5 (280-37012-10)	12/13/12	14:15 Pacific		Solid			X	X	1	, TEQs required
EB1-121312 (280-37012-11)	12/13/12	15:00 Pacific		Water			X		2	TEQs required
EB2-121312 (280-37012-12)	12/13/12	15:30 Pacific		Water			X		2	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12/18/12 1600	Company: TA	Received by: [signature]	Date/Time: 12/19/12 0940	Company: TA Knox
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1-22-150409

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/19/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/13/2012
CarrierName: FedEx
AirbillNo: 794300575415

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121213-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-585-SA6-SB-0.0-0.5MS	12/13/12 08:00	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-985-SA6-SB-0.0-0.5	12/13/12 08:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-584-SA6-SB-0.0-0.5	12/13/12 09:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-593-SA6-SB-4.5-5.5	12/13/12 10:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-682-SA6-SB-0.0-0.5	12/13/12 13:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-582-SA6-SB-0.0-0.5	12/13/12 09:35	SO	None	1 - SS-Sleeve	10 day									X																							
SL-682-SA6-SB-3.0-4.0	12/13/12 13:25	SO	None	1 - 4 oz glass	10 day									X																							
SL-685-SA6-SB-0.0-0.5MS	12/13/12 14:10	SO	None	3 - SS-Sleeve	10 day									X																							MS/MSD
SL-685-SA6-SB-4.0-5.0	12/13/12 14:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-1085-SA6-SB-0.0-0.5	12/13/12 14:15	SO	None	1 - SS-Sleeve	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/13/2012	1600									

280-37012-1

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/13/2012
CarrierName: FedEx
AirbillNo: 794293472440

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121213-04
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-121312	12/13/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							RC/ND pH=7
EB2-121312	12/13/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							RC/ND pH=7

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/13/12	1400	Ryan Henry	12/14/12	1000						

REC. @ 1.2°C
CUSTODY SEAL INTACT
1 COOLER RH 12/14/12
FED EX #794293472440

1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 12/14/12

QA026R23.doc, 022812

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-37012-1

Login Number: 37012
List Number: 1
Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 17, 2012 8:41 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-37012, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the ten soil samples and two equipment blanks received at the laboratories on 12/14/12.

The samples were received in acceptable condition at temperatures of 5.0℃ (Denver) and 1.2℃ (Knoxville).

RECEIPT DISCREPANCIES: None

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089729]
Attachments: 4

SAMPLE DELIVERY GROUP

280-37060-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-37060-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/22/2013 12:15:39 PM
Elizabeth Eichelberger
Project Manager I
elizabeth.eichelberger@testamericainc.com

Designee for

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 8
Sample Summary 9
Chronicle 10
Subcontract Data 12
Chain of Custody 45
Receipt Checklists 46

Job ID: 280-37060-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-37060-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Eight soil samples were received under Chain of Custody on December 15, 2012. The samples were received in good condition at a temperature of 3.3°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

No anomalies were encountered during sample receipt.

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Client Sample ID: SL-607-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.29	Q B J	5.3	0.077	0.5	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.39	Q J	5.3	0.10	0.1	0.039	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.2	J	5.3	0.097	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.4	C B J	5.3	0.092	0.1	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	34	B	5.3	0.20	0.01	0.34	ng/kg	1	☼	1613B	Total
OCDD	390	B	11	0.24	0.001	0.39	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.39	Q J	1.1	0.059	0.1	0.039	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.26	J	5.3	0.070	0.05	0.013	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.33	J	5.3	0.068	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.57	B J	5.3	0.052	0.1	0.057	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.43	Q B J	5.3	0.047	0.1	0.043	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.31	Q J	5.3	0.052	0.1	0.031	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.16	Q B J	5.3	0.063	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.9	B	5.3	0.054	0.01	0.059	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.44	B J	5.3	0.074	0.01	0.0044	ng/kg	1	☼	1613B	Total
OCDF	13	B	11	0.054	0.001	0.013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-607-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37060-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.062	B J	5.2	0.041	0.5	0.031	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.95	Q B J	5.2	0.089	0.01	0.0095	ng/kg	1	☼	1613B	Total
OCDD	17	B	10	0.092	0.001	0.017	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.080	Q B J	5.2	0.035	0.1	0.0080	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.21	B J	5.2	0.027	0.01	0.0021	ng/kg	1	☼	1613B	Total
OCDF	0.69	B J	10	0.046	0.001	0.00069	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-690-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.22	B J	5.7	0.060	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.98	J	5.7	0.093	0.1	0.098	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	C B J	5.7	0.088	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	17	B	5.7	0.16	0.01	0.17	ng/kg	1	☼	1613B	Total
OCDD	320	B	11	0.20	0.001	0.32	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.30	Q J	1.1	0.058	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.26	Q J	5.7	0.071	0.05	0.013	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.18	Q J	5.7	0.073	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.34	B J	5.7	0.056	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.34	Q B J	5.7	0.052	0.1	0.034	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.14	Q J	5.7	0.057	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.1	B J	5.7	0.056	0.01	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.19	Q B J	5.7	0.075	0.01	0.0019	ng/kg	1	☼	1613B	Total
OCDF	4.1	B J	11	0.054	0.001	0.0041	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-690-SA6-SB-2.5-3.5 — Lab Sample ID: 280-37060-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.086	Q B J	5.6	0.056	0.5	0.043	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.30	Q J	5.6	0.080	0.1	0.030	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Client Sample ID: SL-690-SA6-SB-2.5-3.5 (Continued) — Lab Sample ID: 280-37060-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.32	Q B J	5.6	0.071	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	5.0	B J	5.6	0.14	0.01	0.050	ng/kg	1	☼	1613B	Total
OCDD	120	B	11	0.18	0.001	0.12	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.064	Q J	1.1	0.046	0.1	0.0064	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.16	B J	5.6	0.058	0.1	0.016	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.089	Q J	5.6	0.052	0.1	0.0089	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.56	Q B J	5.6	0.056	0.01	0.0056	ng/kg	1	☼	1613B	Total
OCDF	1.2	B J	11	0.091	0.001	0.0012	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-660-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.15	Q J	1.0	0.076	1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.57	Q B J	5.2	0.11	0.5	0.29	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.90	J	5.2	0.092	0.1	0.090	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	2.9	J	5.2	0.095	0.1	0.29	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	3.4	C B J	5.2	0.088	0.1	0.34	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	63	B	5.2	0.15	0.01	0.63	ng/kg	1	☼	1613B	Total
OCDD	510	B	10	0.17	0.001	0.51	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	8.3		1.0	0.23	0.1	0.83	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	3.2	J	5.2	0.12	0.05	0.16	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	2.6	J	5.2	0.13	0.5	1.3	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	2.6	B J	5.2	0.059	0.1	0.26	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.8	Q B J	5.2	0.059	0.1	0.18	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.83	Q J	5.2	0.058	0.1	0.083	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.34	Q B J	5.2	0.074	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	11	B	5.2	0.057	0.01	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.82	Q B J	5.2	0.071	0.01	0.0082	ng/kg	1	☼	1613B	Total
OCDF	24	B	10	0.060	0.001	0.024	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-660-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37060-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.16	Q B J	5.1	0.037	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.38	J	5.1	0.056	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.42	B J	5.1	0.052	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	6.5	B	5.1	0.085	0.01	0.065	ng/kg	1	☼	1613B	Total
OCDD	83	B	10	0.090	0.001	0.083	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.68	J	1.0	0.058	0.1	0.068	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.29	J	5.1	0.048	0.05	0.015	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.22	Q J	5.1	0.046	0.5	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.20	Q B J	5.1	0.030	0.1	0.020	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.17	Q B J	5.1	0.031	0.1	0.017	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.094	Q J	5.1	0.031	0.1	0.0094	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.096	Q B J	5.1	0.037	0.1	0.0096	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.5	B J	5.1	0.042	0.01	0.015	ng/kg	1	☼	1613B	Total
OCDF	4.3	B J	10	0.041	0.001	0.0043	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-558-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-7

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Client Sample ID: SL-558-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37060-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	2.9		1.1	0.13	1	2.9	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.5	Q B J	5.7	0.14	0.5	0.75	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.6	J	5.7	0.17	0.1	0.26	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	5.9		5.7	0.18	0.1	0.59	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	6.6	C B	5.7	0.17	0.1	0.66	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	150	B	5.7	0.27	0.01	1.5	ng/kg	1	☼	1613B	Total
OCDD	1800	B	11	0.25	0.001	1.8	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.6	Q	1.1	0.16	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.95	J	5.7	0.14	0.05	0.048	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.2	J	5.7	0.12	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.9	C B J	5.7	0.078	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.4	Q B J	5.7	0.075	0.1	0.14	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.77	Q J	5.7	0.077	0.1	0.077	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	14	B	5.7	0.16	0.01	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.1	Q B J	5.7	0.16	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDF	31	B	11	0.11	0.001	0.031	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-689-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.033	Q J	1.1	0.034	1	0.033	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.23	Q B J	5.5	0.060	0.5	0.12	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.64	Q J	5.5	0.10	0.1	0.064	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.82	B J	5.5	0.094	0.1	0.082	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	12	B	5.5	0.11	0.01	0.12	ng/kg	1	☼	1613B	Total
OCDD	290	B	11	0.20	0.001	0.29	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.067	Q J	1.1	0.044	0.1	0.0067	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.098	Q B J	5.5	0.051	0.1	0.0098	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.17	Q B J	5.5	0.047	0.1	0.017	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q J	5.5	0.051	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.96	B J	5.5	0.055	0.01	0.0096	ng/kg	1	☼	1613B	Total
OCDF	2.9	B J	11	0.12	0.001	0.0029	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37060-1	SL-607-SA6-SB-0.0-0.5	Solid	12/14/12 09:00	12/15/12 09:00
280-37060-2	SL-607-SA6-SB-4.0-5.0	Solid	12/14/12 09:15	12/15/12 09:00
280-37060-3	SL-690-SA6-SB-0.0-0.5	Solid	12/14/12 07:50	12/15/12 09:00
280-37060-4	SL-690-SA6-SB-2.5-3.5	Solid	12/14/12 08:10	12/15/12 09:00
280-37060-5	SL-660-SA6-SB-0.0-0.5	Solid	12/14/12 10:05	12/15/12 09:00
280-37060-6	SL-660-SA6-SB-4.0-5.0	Solid	12/14/12 11:45	12/15/12 09:00
280-37060-7	SL-558-SA6-SB-0.0-0.5	Solid	12/14/12 14:20	12/15/12 09:00
280-37060-8	SL-689-SA6-SB-0.0-0.5	Solid	12/14/12 14:50	12/15/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Client Sample ID: SL-607-SA6-SB-0.0-0.5

Lab Sample ID: 280-37060-1
Date Collected: 12/14/12 09:00
Matrix: Solid
Date Received: 12/15/12 09:00
Percent Solids: 93

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/11/13 17:13	KLW	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2355032	12/20/12 10:21	TN	TAL KNX

Client Sample ID: SL-607-SA6-SB-4.0-5.0

Lab Sample ID: 280-37060-2
Date Collected: 12/14/12 09:15
Matrix: Solid
Date Received: 12/15/12 09:00
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/11/13 18:15	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:21	TN	TAL KNX

Client Sample ID: SL-690-SA6-SB-0.0-0.5

Lab Sample ID: 280-37060-3
Date Collected: 12/14/12 07:50
Matrix: Solid
Date Received: 12/15/12 09:00
Percent Solids: 87

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/11/13 19:16	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:21	TN	TAL KNX

Client Sample ID: SL-690-SA6-SB-2.5-3.5

Lab Sample ID: 280-37060-4
Date Collected: 12/14/12 08:10
Matrix: Solid
Date Received: 12/15/12 09:00
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/11/13 20:18	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:22	TN	TAL KNX

Client Sample ID: SL-660-SA6-SB-0.0-0.5

Lab Sample ID: 280-37060-5
Date Collected: 12/14/12 10:05
Matrix: Solid
Date Received: 12/15/12 09:00
Percent Solids: 96

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 13:30	KLW	TAL KNX
Total	Analysis	1613B		1			2362024	01/16/13 01:15	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:22	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37060-1

Client Sample ID: SL-660-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37060-6

Date Collected: 12/14/12 11:45 — **Matrix: Solid**
Date Received: 12/15/12 09:00 — **Percent Solids: 96.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 14:32	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:22	TN	TAL KNX

Client Sample ID: SL-558-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-7

Date Collected: 12/14/12 14:20 — **Matrix: Solid**
Date Received: 12/15/12 09:00 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 15:34	KLW	TAL KNX
Total	Analysis	1613B		1			2362024	01/16/13 01:47	LKM	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:22	TN	TAL KNX

Client Sample ID: SL-689-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37060-8

Date Collected: 12/14/12 14:50 — **Matrix: Solid**
Date Received: 12/15/12 09:00 — **Percent Solids: 90.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	2362024_P	12/27/12 14:00		TAL KNX
Total	Analysis	1613B		1			2362024	01/14/13 16:35	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2355032	12/20/12 10:23	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L190408 Analytical Report 1

Sample Receipt Documentation 30

Total Number of Pages 32

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-37060-1

CDM - SSFL Area IV

Lot #: H2L190408

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 17, 2013

ANALYTICAL METHODS SUMMARY

H2L190408

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L190408

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXM29	001	SL-607-SA6-SB-0.0-0.5	12/14/12	09:00
MXM3A	002	SL-607-SA6-SB-4.0-5.0	12/14/12	09:15
MXM3C	003	SL-690-SA6-SB-0.0-0.5	12/14/12	07:50
MXM3D	004	SL-690-SA6-SB-2.5-3.5	12/14/12	08:10
MXM3E	005	SL-660-SA6-SB-0.0-0.5	12/14/12	10:05
MXM3F	006	SL-660-SA6-SB-4.0-5.0	12/14/12	11:45
MXM3G	007	SL-558-SA6-SB-0.0-0.5	12/14/12	14:20
MXM3H	008	SL-689-SA6-SB-0.0-0.5	12/14/12	14:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L190408

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column. The raw data for the DB-225 analyses is included in the data package directly following the primary column analyses.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

PROJECT NARRATIVE
H2L190408

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

PROJECT NARRATIVE
H2L190408

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration

PROJECT NARRATIVE
H2L190408

W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-607-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 001	**Work Order #....:**	MXM291AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	7.0
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/11/13	1	ND	1.1	0.041	1.0	0
1,2,3,7,8-PeCDD	**1/11/13**	**1**	**0.29 Q B J**	**5.3**	**0.077**	**1.0**	**0.29**
1,2,3,4,7,8-HxCDD	**1/11/13**	**1**	**0.39 Q J**	**5.3**	**0.10**	**0.1**	**0.039**
1,2,3,6,7,8-HxCDD	**1/11/13**	**1**	**1.2 J**	**5.3**	**0.097**	**0.1**	**0.12**
1,2,3,7,8,9-HxCDD	**1/11/13**	**1**	**1.4**	**5.3**	**0.092**	**0.1**	**0.14**
1,2,3,4,6,7,8-HpCDD	**1/11/13**	**1**	**34 B**	**5.3**	**0.20**	**0.01**	**0.34**
OCDD	**1/11/13**	**1**	**390 B**	**11**	**0.24**	**0.0003**	**0.12**
2,3,7,8-TCDF	**1/11/13**	**1**	**0.39 Q J**	**1.1**	**0.059**	**0.1**	**0.039**
1,2,3,7,8-PeCDF	**1/11/13**	**1**	**0.26 J**	**5.3**	**0.070**	**0.03**	**0.0078**
2,3,4,7,8-PeCDF	**1/11/13**	**1**	**0.33 J**	**5.3**	**0.068**	**0.3**	**0.099**
1,2,3,4,7,8-HxCDF	**1/11/13**	**1**	**0.57 B J**	**5.3**	**0.052**	**0.1**	**0.057**
1,2,3,6,7,8-HxCDF	**1/11/13**	**1**	**0.43 Q B J**	**5.3**	**0.047**	**0.1**	**0.043**
2,3,4,6,7,8-HxCDF	**1/11/13**	**1**	**0.31 Q J**	**5.3**	**0.052**	**0.1**	**0.031**
1,2,3,7,8,9-HxCDF	**1/11/13**	**1**	**0.16 Q B J**	**5.3**	**0.063**	**0.1**	**0.016**
1,2,3,4,6,7,8-HpCDF	**1/11/13**	**1**	**5.9 B**	**5.3**	**0.054**	**0.01**	**0.059**
1,2,3,4,7,8,9-HpCDF	**1/11/13**	**1**	**0.44 B J**	**5.3**	**0.074**	**0.01**	**0.0044**
OCDF	**1/11/13**	**1**	**13 B**	**11**	**0.054**	**0.0003**	**0.0039**
Total TEQ Concentration							**1.4**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	78	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	88	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	81	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	82	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	83	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	77	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-607-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-607-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 002	**Work Order #....:**	MXM3A1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	4.5
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/11/13	1	ND	1.0	0.031	1.0	0
1,2,3,7,8-PeCDD	**1/11/13**	**1**	**0.062 B J**	**5.2**	**0.041**	**1.0**	**0.062**
1,2,3,4,7,8-HxCDD	1/11/13	1	ND	5.2	0.060	0.1	0
1,2,3,6,7,8-HxCDD	1/11/13	1	ND	5.2	0.063	0.1	0
1,2,3,7,8,9-HxCDD	1/11/13	1	ND	5.2	0.058	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/11/13**	**1**	**0.95 Q B J**	**5.2**	**0.089**	**0.01**	**0.0095**
OCDD	**1/11/13**	**1**	**17 B**	**10**	**0.092**	**0.0003**	**0.0051**
2,3,7,8-TCDF	1/11/13	1	ND	1.0	0.029	0.1	0
1,2,3,7,8-PeCDF	1/11/13	1	ND	5.2	0.029	0.03	0
2,3,4,7,8-PeCDF	1/11/13	1	ND	5.2	0.028	0.3	0
1,2,3,4,7,8-HxCDF	1/11/13	1	ND	5.2	0.036	0.1	0
1,2,3,6,7,8-HxCDF	**1/11/13**	**1**	**0.080 Q B J**	**5.2**	**0.035**	**0.1**	**0.0080**
2,3,4,6,7,8-HxCDF	1/11/13	1	ND	5.2	0.036	0.1	0
1,2,3,7,8,9-HxCDF	1/11/13	1	ND	5.2	0.047	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/11/13**	**1**	**0.21 B J**	**5.2**	**0.027**	**0.01**	**0.0021**
1,2,3,4,7,8,9-HpCDF	1/11/13	1	ND	5.2	0.038	0.01	0
OCDF	**1/11/13**	**1**	**0.69 B J**	**10**	**0.046**	**0.0003**	**0.00021**
Total TEQ Concentration							**0.087**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	83	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	83	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	83	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	80	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-607-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-690-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 003	**Work Order #....:**	MXM3C1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	13
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/11/13	1	ND	1.1	0.035	1.0	0
1,2,3,7,8-PeCDD	**1/11/13**	**1**	**0.22 B J**	**5.7**	**0.060**	**1.0**	**0.22**
1,2,3,4,7,8-HxCDD	1/11/13	1	ND	5.7	0.094	0.1	0
1,2,3,6,7,8-HxCDD	**1/11/13**	**1**	**0.98 J**	**5.7**	**0.093**	**0.1**	**0.098**
1,2,3,7,8,9-HxCDD	**1/11/13**	**1**	**1.1**	**5.7**	**0.088**	**0.1**	**0.11**
1,2,3,4,6,7,8-HpCDD	**1/11/13**	**1**	**17 B**	**5.7**	**0.16**	**0.01**	**0.17**
OCDD	**1/11/13**	**1**	**320 B**	**11**	**0.20**	**0.0003**	**0.096**
2,3,7,8-TCDF	**1/11/13**	**1**	**0.30 Q J**	**1.1**	**0.058**	**0.1**	**0.030**
1,2,3,7,8-PeCDF	**1/11/13**	**1**	**0.26 Q J**	**5.7**	**0.071**	**0.03**	**0.0078**
2,3,4,7,8-PeCDF	**1/11/13**	**1**	**0.18 Q J**	**5.7**	**0.073**	**0.3**	**0.054**
1,2,3,4,7,8-HxCDF	**1/11/13**	**1**	**0.34 B J**	**5.7**	**0.056**	**0.1**	**0.034**
1,2,3,6,7,8-HxCDF	**1/11/13**	**1**	**0.34 Q B J**	**5.7**	**0.052**	**0.1**	**0.034**
2,3,4,6,7,8-HxCDF	**1/11/13**	**1**	**0.14 Q J**	**5.7**	**0.057**	**0.1**	**0.014**
1,2,3,7,8,9-HxCDF	1/11/13	1	ND	5.7	0.072	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/11/13**	**1**	**2.1 B J**	**5.7**	**0.056**	**0.01**	**0.021**
1,2,3,4,7,8,9-HpCDF	**1/11/13**	**1**	**0.19 Q B J**	**5.7**	**0.075**	**0.01**	**0.0019**
OCDF	**1/11/13**	**1**	**4.1 B J**	**11**	**0.054**	**0.0003**	**0.0012**
Total TEQ Concentration							**0.89**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	(25 - 164)
13C-1,2,3,7,8-PeCDD	80	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	74	(23 - 140)
13C-OCDD	71	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	68	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	68	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	68	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	68	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	77	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-690-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-690-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 004	**Work Order #....:**	MXM3D1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	12
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/11/13	1	ND	1.1	0.044	1.0	0
1,2,3,7,8-PeCDD	**1/11/13**	**1**	**0.086 Q B J**	**5.6**	**0.056**	**1.0**	**0.086**
1,2,3,4,7,8-HxCDD	1/11/13	1	ND	5.6	0.072	0.1	0
1,2,3,6,7,8-HxCDD	**1/11/13**	**1**	**0.30 Q J**	**5.6**	**0.080**	**0.1**	**0.030**
1,2,3,7,8,9-HxCDD	**1/11/13**	**1**	**0.32 Q B J**	**5.6**	**0.071**	**0.1**	**0.032**
1,2,3,4,6,7,8-HpCDD	**1/11/13**	**1**	**5.0 B J**	**5.6**	**0.14**	**0.01**	**0.050**
OCDD	**1/11/13**	**1**	**120 B**	**11**	**0.18**	**0.0003**	**0.036**
2,3,7,8-TCDF	**1/11/13**	**1**	**0.064 Q J**	**1.1**	**0.046**	**0.1**	**0.0064**
1,2,3,7,8-PeCDF	1/11/13	1	ND	5.6	0.062	0.03	0
2,3,4,7,8-PeCDF	1/11/13	1	ND	5.6	0.057	0.3	0
1,2,3,4,7,8-HxCDF	1/11/13	1	ND	5.6	0.057	0.1	0
1,2,3,6,7,8-HxCDF	**1/11/13**	**1**	**0.16 B J**	**5.6**	**0.058**	**0.1**	**0.016**
2,3,4,6,7,8-HxCDF	**1/11/13**	**1**	**0.089 Q J**	**5.6**	**0.052**	**0.1**	**0.0089**
1,2,3,7,8,9-HxCDF	1/11/13	1	ND	5.6	0.066	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/11/13**	**1**	**0.56 Q B J**	**5.6**	**0.056**	**0.01**	**0.0056**
1,2,3,4,7,8,9-HpCDF	1/11/13	1	ND	5.6	0.070	0.01	0
OCDF	**1/11/13**	**1**	**1.2 B J**	**11**	**0.091**	**0.0003**	**0.00036**
Total TEQ Concentration							**0.27**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	79	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	66	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	82	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	64	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	61	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	73	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	70	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	61	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-690-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-660-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 005	**Work Order #....:**	MXM3E1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	4.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/14/13**	**1**	**0.15 Q J**	**1.0**	**0.076**	**1.0**	**0.15**
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**0.57 Q B J**	**5.2**	**0.11**	**1.0**	**0.57**
1,2,3,4,7,8-HxCDD	**1/14/13**	**1**	**0.90 J**	**5.2**	**0.092**	**0.1**	**0.090**
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**2.9 J**	**5.2**	**0.095**	**0.1**	**0.29**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**3.4**	**5.2**	**0.088**	**0.1**	**0.34**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**63 B**	**5.2**	**0.15**	**0.01**	**0.63**
OCDD	**1/14/13**	**1**	**510 B**	**10**	**0.17**	**0.0003**	**0.15**
2,3,7,8-TCDF	**1/16/13**	**1**	**8.3**	**1.0**	**0.23**	**0.1**	**0.83**
1,2,3,7,8-PeCDF	**1/14/13**	**1**	**3.2 J**	**5.2**	**0.12**	**0.03**	**0.096**
2,3,4,7,8-PeCDF	**1/14/13**	**1**	**2.6 J**	**5.2**	**0.13**	**0.3**	**0.78**
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**2.6 B J**	**5.2**	**0.059**	**0.1**	**0.26**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**1.8 Q B J**	**5.2**	**0.059**	**0.1**	**0.18**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.83 Q J**	**5.2**	**0.058**	**0.1**	**0.083**
1,2,3,7,8,9-HxCDF	**1/14/13**	**1**	**0.34 Q B J**	**5.2**	**0.074**	**0.1**	**0.034**
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**11 B**	**5.2**	**0.057**	**0.01**	**0.11**
1,2,3,4,7,8,9-HpCDF	**1/14/13**	**1**	**0.82 Q B J**	**5.2**	**0.071**	**0.01**	**0.0082**
OCDF	**1/14/13**	**1**	**24 B**	**10**	**0.060**	**0.0003**	**0.0072**
Total TEQ Concentration							**4.6**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	84	(23 - 140)
13C-OCDD	84	(17 - 157)
13C-2,3,7,8-TCDF	92	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	81	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-660-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-660-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 006	**Work Order #....:**	MXM3F1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	3.8
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/14/13	1	ND	1.0	0.025	1.0	0
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**0.16 Q B J**	**5.1**	**0.037**	**1.0**	**0.16**
1,2,3,4,7,8-HxCDD	1/14/13	1	ND	5.1	0.055	0.1	0
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**0.38 J**	**5.1**	**0.056**	**0.1**	**0.038**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**0.42 B J**	**5.1**	**0.052**	**0.1**	**0.042**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**6.5 B**	**5.1**	**0.085**	**0.01**	**0.065**
OCDD	**1/14/13**	**1**	**83 B**	**10**	**0.090**	**0.0003**	**0.025**
2,3,7,8-TCDF	**1/14/13**	**1**	**0.68 J**	**1.0**	**0.058**	**0.1**	**0.068**
1,2,3,7,8-PeCDF	**1/14/13**	**1**	**0.29 J**	**5.1**	**0.048**	**0.03**	**0.0087**
2,3,4,7,8-PeCDF	**1/14/13**	**1**	**0.22 Q J**	**5.1**	**0.046**	**0.3**	**0.066**
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**0.20 Q B J**	**5.1**	**0.030**	**0.1**	**0.020**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**0.17 Q B J**	**5.1**	**0.031**	**0.1**	**0.017**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.094 Q J**	**5.1**	**0.031**	**0.1**	**0.0094**
1,2,3,7,8,9-HxCDF	**1/14/13**	**1**	**0.096 Q B J**	**5.1**	**0.037**	**0.1**	**0.0096**
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**1.5 B J**	**5.1**	**0.042**	**0.01**	**0.015**
1,2,3,4,7,8,9-HpCDF	1/14/13	1	ND	5.1	0.052	0.01	0
OCDF	**1/14/13**	**1**	**4.3 B J**	**10**	**0.041**	**0.0003**	**0.0013**
Total TEQ Concentration							**0.54**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	96	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	82	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	91	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	76	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-660-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-558-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 007	**Work Order #....:**	MXM3G1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	12
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/14/13**	**1**	**2.9**	**1.1**	**0.13**	**1.0**	**2.9**
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**1.5 Q B J**	**5.7**	**0.14**	**1.0**	**1.5**
1,2,3,4,7,8-HxCDD	**1/14/13**	**1**	**2.6 J**	**5.7**	**0.17**	**0.1**	**0.26**
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**5.9**	**5.7**	**0.18**	**0.1**	**0.59**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**6.6 C B**	**5.7**	**0.17**	**0.1**	**0.66**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**150 B**	**5.7**	**0.27**	**0.01**	**1.5**
OCDD	**1/14/13**	**1**	**1800 B**	**11**	**0.25**	**0.0003**	**0.54**
2,3,7,8-TCDF	**1/16/13**	**1**	**1.6 Q**	**1.1**	**0.16**	**0.1**	**0.16**
1,2,3,7,8-PeCDF	**1/14/13**	**1**	**0.95 J**	**5.7**	**0.14**	**0.03**	**0.028**
2,3,4,7,8-PeCDF	**1/14/13**	**1**	**1.2 J**	**5.7**	**0.12**	**0.3**	**0.36**
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**1.9**	**5.7**	**0.078**	**0.1**	**0.19**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**1.4 Q B J**	**5.7**	**0.075**	**0.1**	**0.14**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.77 Q J**	**5.7**	**0.077**	**0.1**	**0.077**
1,2,3,7,8,9-HxCDF	1/14/13	1	ND	5.7	0.098	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**14 B**	**5.7**	**0.16**	**0.01**	**0.14**
1,2,3,4,7,8,9-HpCDF	**1/14/13**	**1**	**1.1 Q B J**	**5.7**	**0.16**	**0.01**	**0.011**
OCDF	**1/14/13**	**1**	**31 B**	**11**	**0.11**	**0.0003**	**0.0093**
Total TEQ Concentration							**9.1**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	69	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	64	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	59	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	77	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	65	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	61	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	66	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	62	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-558-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-689-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L190408 - 008	**Work Order #....:**	MXM3H1AC	**Matrix.....:**	SO
Date Sampled....:	12/14/12	**Date Received....:**	12/19/12	**Units....:**	ng/kg
Prep Date....:	12/27/12			**Dilution Factor:**	1
Prep Batch # ....:	2362024			**Percent Moisture:**	9.6
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/14/13**	**1**	**0.033 Q J**	**1.1**	**0.034**	**1.0**	**0.033**
1,2,3,7,8-PeCDD	**1/14/13**	**1**	**0.23 Q B J**	**5.5**	**0.060**	**1.0**	**0.23**
1,2,3,4,7,8-HxCDD	1/14/13	1	ND	5.5	0.099	0.1	0
1,2,3,6,7,8-HxCDD	**1/14/13**	**1**	**0.64 Q J**	**5.5**	**0.10**	**0.1**	**0.064**
1,2,3,7,8,9-HxCDD	**1/14/13**	**1**	**0.82 B J**	**5.5**	**0.094**	**0.1**	**0.082**
1,2,3,4,6,7,8-HpCDD	**1/14/13**	**1**	**12 B**	**5.5**	**0.11**	**0.01**	**0.12**
OCDD	**1/14/13**	**1**	**290 B**	**11**	**0.20**	**0.0003**	**0.087**
2,3,7,8-TCDF	**1/14/13**	**1**	**0.067 Q J**	**1.1**	**0.044**	**0.1**	**0.0067**
1,2,3,7,8-PeCDF	1/14/13	1	ND	5.5	0.048	0.03	0
2,3,4,7,8-PeCDF	1/14/13	1	ND	5.5	0.046	0.3	0
1,2,3,4,7,8-HxCDF	**1/14/13**	**1**	**0.098 Q B J**	**5.5**	**0.051**	**0.1**	**0.0098**
1,2,3,6,7,8-HxCDF	**1/14/13**	**1**	**0.17 Q B J**	**5.5**	**0.047**	**0.1**	**0.017**
2,3,4,6,7,8-HxCDF	**1/14/13**	**1**	**0.15 Q J**	**5.5**	**0.051**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	1/14/13	1	ND	5.5	0.062	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/14/13**	**1**	**0.96 B J**	**5.5**	**0.055**	**0.01**	**0.0096**
1,2,3,4,7,8,9-HpCDF	1/14/13	1	ND	5.5	0.072	0.01	0
OCDF	**1/14/13**	**1**	**2.9 B J**	**11**	**0.12**	**0.0003**	**0.00087**
Total TEQ Concentration							**0.67**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	69	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	93	(24 - 185)
13C-2,3,4,7,8-PeCDF	95	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	77	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	81	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

KNX_TEQ_V003.rpt Version 0.0.3, 09/05/2015

TestAmerica Denver

Client Sample ID: SL-689-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L270000 - 024B	**Work Order #....:**	MXQAL1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/27/12	**Analysis Date....:**	01/11/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2362024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.033	ng/kg
1,2,3,7,8-PeCDD	**0.062**	**Q J**	**5.0**	**0.034**	**ng/kg**
1,2,3,4,7,8-HxCDD	ND		5.0	0.051	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.052	ng/kg
1,2,3,7,8,9-HxCDD	**0.16**	**J**	**5.0**	**0.048**	**ng/kg**
1,2,3,4,6,7,8-HpCDD	**0.38**	**J**	**5.0**	**0.076**	**ng/kg**
OCDD	**8.5**	**J**	**10**	**0.056**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.033	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.027	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.025	ng/kg
1,2,3,4,7,8-HxCDF	**0.095**	**Q J**	**5.0**	**0.035**	**ng/kg**
1,2,3,6,7,8-HxCDF	**0.069**	**Q J**	**5.0**	**0.033**	**ng/kg**
2,3,4,6,7,8-HxCDF	ND		5.0	0.032	ng/kg
1,2,3,7,8,9-HxCDF	**0.12**	**Q J**	**5.0**	**0.041**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.078**	**Q J**	**5.0**	**0.021**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.11**	**Q J**	**5.0**	**0.027**	**ng/kg**
OCDF	**0.29**	**Q J**	**10**	**0.029**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	25 - 164
13C-1,2,3,7,8-PeCDD	74	25 - 181
13C-1,2,3,4,7,8-HxCDD	72	32 - 141
13C-1,2,3,6,7,8-HxCDD	69	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	70	23 - 140
13C-OCDD	79	17 - 157
13C-2,3,7,8-TCDF	75	24 - 169
13C-1,2,3,7,8-PeCDF	78	24 - 185
13C-2,3,4,7,8-PeCDF	76	21 - 178
13C-1,2,3,4,7,8-HxCDF	73	26 - 152
13C-1,2,3,6,7,8-HxCDF	71	26 - 123
13C-2,3,4,6,7,8-HxCDF	79	28 - 136
13C-1,2,3,7,8,9-HxCDF	76	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	65	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	75	26 - 138

\\qknxsql1\qdsapps\SOG_Stnd\SOG_Stnd_MB_Rev1.rpt 1/16/2013

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H2L270000 - 024B	**Work Order #....:**	MXQAL1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	12/27/12	**Analysis Date....:**	01/11/13	**Percent Moisture:**	0.0
Prep Batch # ....:	2362024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	76	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

\\qknxsql1\qdsapps\SOG_Stnd\SOG_Stnd_MB_Rev1.rpt 1/16/2013

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L190408	**Work Order # ...:**	MXQAL1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H2L270000 - 024				
Prep Date .....:	12/27/12	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	2362024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.4**	**ng/kg**	**107**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**110**	**ng/kg**	**110**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**105**	**ng/kg**	**105**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**108**	**ng/kg**	**108**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**106**	**ng/kg**	**106**	**B**	**(70 - 140)**
OCDD	**200**	**224**	**ng/kg**	**112**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.1**	**ng/kg**	**100**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**105**	**ng/kg**	**105**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**107**	**ng/kg**	**107**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**97.0**	**ng/kg**	**97**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**97.2**	**ng/kg**	**97**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**98.0**	**ng/kg**	**98**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**103**	**ng/kg**	**103**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**100**	**ng/kg**	**100**	**B**	**(78 - 138)**
OCDF	**200**	**175**	**ng/kg**	**87**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	(20 - 175)
13C-1,2,3,7,8-PeCDD	80	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	78	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	75	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	79	(26 - 166)
13C-OCDD	76	(13 - 199)
13C-2,3,7,8-TCDF	69	(22 - 152)
13C-1,2,3,7,8-PeCDF	81	(21 - 192)
13C-2,3,4,7,8-PeCDF	80	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	77	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	73	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	78	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	72	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	73	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	76	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	74	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

1 cooler Rec'd @ 1.4 with custody seal intact 12/19/12
1 cooler Fed x # 5490 3693 4903

H2L140408

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-164411.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 280-37060-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 12/26/2012			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-607-SA6-SB-0.0-0.5 (280-37060-1)	12/14/12	09:00 Pacific		Solid			X	X	1	, TEQs required
SL-607-SA6-SB-4.0-5.0 (280-37060-2)	12/14/12	09:15 Pacific		Solid			X	X	1	, TEQs required
SL-690-SA6-SB-0.0-0.5 (280-37060-3)	12/14/12	07:50 Pacific		Solid			X	X	1	, TEQs required
SL-690-SA6-SB-2.5-3.5 (280-37060-4)	12/14/12	08:10 Pacific		Solid			X	X	1	, TEQs required
SL-660-SA6-SB-0.0-0.5 (280-37060-5)	12/14/12	10:05 Pacific		Solid			X	X	1	, TEQs required
SL-660-SA6-SB-4.0-5.0 (280-37060-6)	12/14/12	11:45 Pacific		Solid			X	X	1	, TEQs required
SL-558-SA6-SB-0.0-0.5 (280-37060-7)	12/14/12	14:20 Pacific		Solid			X	X	1	TEQs required
SL-689-SA6-SB-0.0-0.5 (280-37060-8)	12/14/12	14:50 Pacific		Solid			X	X	1	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12/18/12 1600	TA	[signature]	12/19/12 0940	TA KNOX

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L9D408

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 90692 PM Instructions: NA

Sample Receiving Associate: George P. Hancock Date: 12/14/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/14/2012
CarrierName: FedEx
AirbillNo:

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121214-02
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-607-SA6-SB-0.0-0.5	12/14/12 09:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-607-SA6-SB-4.0-5.0	12/14/12 09:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-690-SA6-SB-0.0-0.5	12/14/12 07:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-690-SA6-SB-2.5-3.5	12/14/12 08:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-660-SA6-SB-0.0-0.5	12/14/12 10:05	SO	None	1 - SS-Sleeve	10 day									X																							
SL-660-SA6-SB-4.0-5.0	12/14/12 11:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-558-SA6-SB-0.0-0.5	12/14/12 14:20	SO	None	1 - SS-Sleeve	10 day									X																							
SL-689-SA6-SB-0.0-0.5	12/14/12 14:50	SO	None	1 - SS-Sleeve	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/14/2012	1100	[illegible]	12/15/12	0930						

3.3 [illegible] 12/15/12
Rej

COC: 20121214-02, Page 1 of 1

COC Rev 2

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-37060-1

Login Number: 37060

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Uriell, Lisa

From: Uriell, Lisa [lisa.uriell@testamericainc.com]
Sent: Monday, December 17, 2012 8:46 AM
To: Todd Burgesser; Cherie Zakowski
Cc: Eichelberger, Elizabeth; Pam Hartman; Stephanie Mysel
Subject: Sample Login Confirmation for 280-37060, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chains of custody for the eight soil samples received at the laboratory on 12/15/12.

The samples were received in acceptable condition at a temperature of 3.3℃.

RECEIPT DISCREPANCIES: None

Subcontracts:

1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory.

Please let us know if you have any questions or concerns.

Thank you.
Lisa Uriell

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

LISA B URIELL

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0103
www.testamericainc.com

Reference: [089730]
Attachments: 3

SAMPLE DELIVERY GROUP

280-37202-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-37202-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/30/2013 12:46:20 PM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 14
Sample Summary 15
Chronicle 16
Subcontract Data 23
Chain of Custody 128
Receipt Checklists 134

Job ID: 280-37202-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-37202-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Thirty soil samples and two Equipment Blanks were received under Chain of Custody on December 20, 2012. The samples were received in good condition at temperatures of 3.4°C, 4.4°C (Denver) and 1.9°C (Knoxville).

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

No anomalies were encountered during sample receipt.

Qualifiers

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
Q	Estimated maximum possible concentration (EMPC).
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
X	See project narrative.
*	Surrogate recovery is outside stated control limits.
a	Spiked analyte recovery is outside stated control limits.
p	Relative percent difference (RPD) is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-685-SA6-SB-6.5-7.5 — Lab Sample ID: 280-37202-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	3.3	Q B J	5.6	0.14	0.01	0.033	ng/kg	1	☼	1613B	Total
OCDD	75	B	11	0.21	0.001	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.24	J	5.6	0.12	0.01	0.0024	ng/kg	1	☼	1613B	Total
OCDF	1.1	Q J	11	0.20	0.001	0.0011	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-575-SA6-SB-2.0-3.0 — Lab Sample ID: 280-37202-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	1.0	Q B J	9.7	0.17	0.001	0.0010	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-576-SA6-SB-2.0-3.0 — Lab Sample ID: 280-37202-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.41	J	4.9	0.076	0.5	0.21	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.77	J	4.9	0.057	0.1	0.077	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.9	J	4.9	0.061	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.5	Q J	4.9	0.055	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	59	B	4.9	0.12	0.01	0.59	ng/kg	1	☼	1613B	Total
OCDD	1700	B	9.9	0.21	0.001	1.7	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.081	Q J	0.99	0.097	0.1	0.0081	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.24	Q B J	4.9	0.048	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.17	Q J	4.9	0.048	0.1	0.017	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.12	Q J	4.9	0.052	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.3	J	4.9	0.073	0.01	0.033	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.17	Q J	4.9	0.13	0.01	0.0017	ng/kg	1	☼	1613B	Total
OCDF	9.2	J	9.9	0.13	0.001	0.0092	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-514-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	3.1	Q B J	5.3	0.16	0.01	0.031	ng/kg	1	☼	1613B	Total
OCDD	56	B	11	0.21	0.001	0.056	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.3	Q	1.1	0.16	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.54	J	5.3	0.11	0.05	0.027	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.59	Q J	5.3	0.11	0.5	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.1	B J	5.3	0.070	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.43	J	5.3	0.070	0.1	0.043	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.65	Q J	5.3	0.071	0.1	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.1	J	5.3	0.10	0.01	0.031	ng/kg	1	☼	1613B	Total
OCDF	1.6	Q J	11	0.20	0.001	0.0016	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-514-SA6-SB-7.0-8.0 — Lab Sample ID: 280-37202-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.16	B J	5.1	0.088	0.01	0.0016	ng/kg	1	☼	1613B	Total
OCDD	0.84	Q B J	10	0.092	0.001	0.00084	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.079	J	5.1	0.062	0.01	0.00079	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-588-SA6-SB-2.0-3.0 — Lab Sample ID: 280-37202-6

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-588-SA6-SB-2.0-3.0 (Continued) — Lab Sample ID: 280-37202-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.27	Q J	5.2	0.092	0.1	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	7.2	B	5.2	0.13	0.01	0.072	ng/kg	1	☼	1613B	Total
OCDD	87	B	10	0.12	0.001	0.087	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.084	Q B J	5.2	0.057	0.1	0.0084	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.087	Q J	5.2	0.055	0.1	0.0087	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q J	5.2	0.057	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.9	J	5.2	0.086	0.01	0.049	ng/kg	1	☼	1613B	Total
OCDF	5.9	J	10	0.14	0.001	0.0059	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-617-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.19	J	5.4	0.11	0.1	0.019	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.13	Q B J	5.4	0.13	0.01	0.0013	ng/kg	1	☼	1613B	Total
OCDD	2.6	B J	11	0.16	0.001	0.0026	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.13	Q J	5.4	0.081	0.1	0.013	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-590-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-8

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	1.5	B Q J	11	0.11	0.001	0.0015	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-592-SA6-SB-2.5-3.5 — Lab Sample ID: 280-37202-9

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.16	J	5.1	0.063	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	1.3	B J	5.1	0.078	0.01	0.013	ng/kg	1	☼	1613B	Total
OCDD	17	B	10	0.12	0.001	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.30	Q J	5.1	0.074	0.01	0.0030	ng/kg	1	☼	1613B	Total
OCDF	0.43	J	10	0.097	0.001	0.00043	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-591-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-10

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	4.8	B J	5.5	0.13	0.01	0.048	ng/kg	1	☼	1613B	Total
OCDD	43	B	11	0.19	0.001	0.043	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.16	B J	5.5	0.063	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.065	Q J	5.5	0.062	0.1	0.0065	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.13	J	5.5	0.069	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.6	J	5.5	0.11	0.01	0.026	ng/kg	1	☼	1613B	Total
OCDF	2.7	J	11	0.15	0.001	0.0027	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-575-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.2	J	5.5	0.11	0.5	0.60	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	2.3	J	5.5	0.087	0.1	0.23	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	6.2		5.5	0.088	0.1	0.62	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	6.1		5.5	0.082	0.1	0.61	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	200	B	5.5	0.11	0.01	2.0	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-575-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37202-11

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDD	4500	B E	11	0.11	0.001	4.5	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.12	Q J	1.1	0.12	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.18	Q J	5.5	0.085	0.05	0.0090	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.16	Q J	5.5	0.082	0.5	0.080	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.77	J	5.5	0.056	0.1	0.077	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.23	Q J	5.5	0.053	0.1	0.023	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.40	J	5.5	0.052	0.1	0.040	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.11	J	5.5	0.059	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	10		5.5	0.068	0.01	0.10	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.98	B J	5.5	0.11	0.01	0.0098	ng/kg	1	☼	1613B	Total
OCDF	25	B	11	0.066	0.001	0.025	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-589-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-12

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.31	Q J	5.8	0.12	0.5	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.42	J	5.8	0.082	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.1	J	5.8	0.092	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.94	J	5.8	0.081	0.1	0.094	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	21	B	5.8	0.11	0.01	0.21	ng/kg	1	☼	1613B	Total
OCDD	240	B	12	0.12	0.001	0.24	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.21	Q J	1.2	0.14	0.1	0.021	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.11	Q J	5.8	0.097	0.5	0.055	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.25	Q J	5.8	0.058	0.1	0.025	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.26	Q J	5.8	0.057	0.1	0.026	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.23	J	5.8	0.059	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.18	J	5.8	0.068	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.4	J	5.8	0.089	0.01	0.034	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.41	Q B J	5.8	0.14	0.01	0.0041	ng/kg	1	☼	1613B	Total
OCDF	4.9	B J	12	0.12	0.001	0.0049	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-591-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-13

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.28	Q J	5.9	0.13	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.52	J	5.9	0.11	0.1	0.052	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.79	Q J	5.9	0.11	0.1	0.079	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.93	Q J	5.9	0.11	0.1	0.093	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	26	B	5.9	0.16	0.01	0.26	ng/kg	1	☼	1613B	Total
OCDD	250	B	12	0.11	0.001	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.49	Q J	5.9	0.072	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.98	J	5.9	0.073	0.1	0.098	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.63	J	5.9	0.071	0.1	0.063	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.22	J	5.9	0.082	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	16		5.9	0.11	0.01	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.2	B J	5.9	0.14	0.01	0.012	ng/kg	1	☼	1613B	Total
OCDF	17	B	12	0.091	0.001	0.017	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-600-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-14

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-600-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37202-14

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.45	Q J	1.2	0.098	1	0.45	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	6.5		5.8	0.075	0.5	3.3	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	9.7		5.8	0.055	0.1	0.97	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	31		5.8	0.062	0.1	3.1	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	23		5.8	0.055	0.1	2.3	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	640	B	5.8	0.063	0.01	6.4	ng/kg	1	☼	1613B	Total
OCDD	5600	B E	12	0.12	0.001	5.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.84	Q J	1.2	0.065	0.1	0.084	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	1.5	J	5.8	0.070	0.05	0.075	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.9	J	5.8	0.068	0.5	0.95	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	8.1		5.8	0.033	0.1	0.81	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	5.7	Q J	5.8	0.033	0.1	0.57	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	3.5	J	5.8	0.033	0.1	0.35	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.52	J	5.8	0.042	0.1	0.052	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	63		5.8	0.060	0.01	0.63	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	4.4	B J	5.8	0.099	0.01	0.044	ng/kg	1	☼	1613B	Total
OCDF	29	B	12	0.052	0.001	0.029	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-588-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-15

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.25	Q J	5.7	0.097	0.5	0.13	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.22	J	5.7	0.085	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.45	J	5.7	0.086	0.1	0.045	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.51	Q J	5.7	0.080	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.8	B	5.7	0.12	0.01	0.098	ng/kg	1	☼	1613B	Total
OCDD	110	B	11	0.12	0.001	0.11	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.26	Q J	1.1	0.11	0.1	0.026	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.082	Q J	5.7	0.077	0.5	0.041	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.24	Q J	5.7	0.047	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.26	Q J	5.7	0.046	0.1	0.026	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.21	J	5.7	0.050	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.12	Q J	5.7	0.067	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	3.9	J	5.7	0.080	0.01	0.039	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.18	Q B J	5.7	0.13	0.01	0.0018	ng/kg	1	☼	1613B	Total
OCDF	4.9	B J	11	0.13	0.001	0.0049	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-592-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.84	Q J	1.1	0.22	1	0.84	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	7.4	Q	5.4	0.15	0.5	3.7	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	17		5.4	0.10	0.1	1.7	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	48		5.4	0.099	0.1	4.8	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	42		5.4	0.094	0.1	4.2	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	910	B	5.4	0.22	0.01	9.1	ng/kg	1	☼	1613B	Total
OCDD	6200	B E	11	0.15	0.001	6.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.2		1.1	0.15	0.1	0.12	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	1.6	J	5.4	0.14	0.05	0.080	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	2.2	J	5.4	0.14	0.5	1.1	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-592-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37202-16

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	11	Q	5.4	0.087	0.1	1.1	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	14	Q	5.4	0.088	0.1	1.4	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	5.1	J	5.4	0.095	0.1	0.51	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	1.6	J	5.4	0.11	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	170		5.4	0.14	0.01	1.7	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	39	B	5.4	0.19	0.01	0.39	ng/kg	1	☼	1613B	Total
OCDF	120	B	11	0.17	0.001	0.12	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-617-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-17

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.43	Q J	5.3	0.14	0.5	0.22	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.53	Q J	5.3	0.12	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.9	J	5.3	0.13	0.1	0.19	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.8	J	5.3	0.12	0.1	0.18	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	37	B	5.3	0.18	0.01	0.37	ng/kg	1	☼	1613B	Total
OCDD	410	B	11	0.20	0.001	0.41	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.61	Q J	1.1	0.14	0.1	0.061	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.20	Q J	5.3	0.11	0.05	0.010	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.60	Q J	5.3	0.11	0.5	0.30	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.80	J	5.3	0.069	0.1	0.080	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.54	J	5.3	0.069	0.1	0.054	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.35	Q J	5.3	0.071	0.1	0.035	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.4		5.3	0.11	0.01	0.064	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.47	Q B J	5.3	0.20	0.01	0.0047	ng/kg	1	☼	1613B	Total
OCDF	12	B	11	0.19	0.001	0.012	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-576-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-18

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.30	Q J	1.0	0.20	1	0.30	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	2.8	J	5.2	0.12	0.5	1.4	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	4.7	J	5.2	0.12	0.1	0.47	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	11		5.2	0.14	0.1	1.1	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	10		5.2	0.12	0.1	1.0	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	290	B	5.2	0.18	0.01	2.9	ng/kg	1	☼	1613B	Total
OCDD	6200	B E	10	0.22	0.001	6.2	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.26	Q J	1.0	0.12	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.18	Q J	5.2	0.093	0.05	0.0090	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.23	Q J	5.2	0.094	0.5	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	1.0	J	5.2	0.058	0.1	0.10	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.43	J	5.2	0.060	0.1	0.043	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.51	J	5.2	0.064	0.1	0.051	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	14		5.2	0.095	0.01	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.73	B J	5.2	0.17	0.01	0.0073	ng/kg	1	☼	1613B	Total
OCDF	37	B	10	0.15	0.001	0.037	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-514-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-19

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-514-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37202-19

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.10	Q J	5.5	0.11	0.5	0.050	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.21	J	5.5	0.078	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.66	J	5.5	0.089	0.1	0.066	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.43	J	5.5	0.078	0.1	0.043	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	25	B	5.5	0.17	0.01	0.25	ng/kg	1	☼	1613B	Total
OCDD	370	B	11	0.15	0.001	0.37	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.053	Q J	5.5	0.085	0.05	0.0027	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.071	Q J	5.5	0.084	0.5	0.035	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.17	J	5.5	0.062	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.24	J	5.5	0.060	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.7	Q J	5.5	0.13	0.01	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.29	Q B J	5.5	0.25	0.01	0.0029	ng/kg	1	☼	1613B	Total
OCDF	10	B J	11	0.13	0.001	0.010	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-590-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-20

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.49	J	5.7	0.15	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	9.7	B	5.7	0.27	0.01	0.097	ng/kg	1	☼	1613B	Total
OCDD	120	B	11	0.37	0.001	0.12	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.24	Q J	5.7	0.097	0.1	0.024	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.30	J	5.7	0.11	0.1	0.030	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.5		5.7	0.20	0.01	0.065	ng/kg	1	☼	1613B	Total
OCDF	8.7	B J	11	0.31	0.001	0.0087	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-515-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-21

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.13	Q J	5.4	0.067	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.16	J	5.4	0.043	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.53	J	5.4	0.044	0.1	0.053	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.24	J	5.4	0.041	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	21	B	5.4	0.059	0.01	0.21	ng/kg	1	☼	1613B	Total
OCDD	310	B	11	0.069	0.001	0.31	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.034	Q J	5.4	0.044	0.05	0.0017	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.12	Q J	5.4	0.030	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.062	Q J	5.4	0.031	0.1	0.0062	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.075	Q J	5.4	0.031	0.1	0.0075	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.3	J	5.4	0.052	0.01	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.21	Q B J	5.4	0.072	0.01	0.0021	ng/kg	1	☼	1613B	Total
OCDF	5.0	B J	11	0.052	0.001	0.0050	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-518-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-37202-22

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.44	J	5.4	0.080	0.1	0.044	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.17	Q J	5.4	0.073	0.1	0.017	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	16	B	5.4	0.13	0.01	0.16	ng/kg	1	☼	1613B	Total
OCDD	180	B	11	0.18	0.001	0.18	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.14	J	5.4	0.057	0.1	0.014	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-518-SA6-SB-0.0-0.5MS (Continued) — Lab Sample ID: 280-37202-22

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	2.4	Q J	5.4	0.095	0.01	0.024	ng/kg	1	☼	1613B	Total
OCDF	6.2	B J	11	0.13	0.001	0.0062	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-918-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-23

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.28	Q J	5.4	0.084	0.1	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	10	B	5.4	0.12	0.01	0.10	ng/kg	1	☼	1613B	Total
OCDD	120	B	11	0.18	0.001	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.1	Q J	5.4	0.095	0.01	0.011	ng/kg	1	☼	1613B	Total
OCDF	3.2	B J	11	0.13	0.001	0.0032	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-622-SA6-SB-0.0-0.5MS — Lab Sample ID: 280-37202-24

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.041	Q J	1.1	0.036	1	0.041	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	0.31	Q J	5.6	0.045	0.5	0.16	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.38	Q J	5.6	0.055	0.1	0.038	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.94	J	5.6	0.056	0.1	0.094	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.1	J	5.6	0.052	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	21		5.6	0.090	0.01	0.21	ng/kg	1	☼	1613B	Total
OCDD	300	B	11	0.027	0.001	0.30	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.29	B J	1.1	0.052	0.1	0.029	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.23	J	5.6	0.051	0.5	0.12	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.34	Q J	5.6	0.036	0.1	0.034	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.3	Q B J	5.6	0.037	0.1	0.13	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.36	B J	5.6	0.041	0.1	0.036	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.32	Q B J	5.6	0.051	0.1	0.032	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	4.1	B J	5.6	0.040	0.01	0.041	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.46	Q B J	5.6	0.061	0.01	0.0046	ng/kg	1	☼	1613B	Total
OCDF	11	B J	11	0.017	0.001	0.011	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-1022-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-25

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.34	Q J	5.7	0.060	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.60	J	5.7	0.076	0.1	0.060	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.3	J	5.7	0.080	0.1	0.13	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.5	J	5.7	0.073	0.1	0.15	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	34		5.7	0.12	0.01	0.34	ng/kg	1	☼	1613B	Total
OCDD	420	B	11	0.056	0.001	0.42	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.78	B J	1.1	0.094	0.1	0.078	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.35	J	5.7	0.087	0.5	0.18	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.56	Q J	5.7	0.049	0.1	0.056	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	2.2	Q B J	5.7	0.051	0.1	0.22	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.49	Q B J	5.7	0.054	0.1	0.049	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.26	Q B J	5.7	0.068	0.1	0.026	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	6.3	B	5.7	0.052	0.01	0.063	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.55	Q B J	5.7	0.078	0.01	0.0055	ng/kg	1	☼	1613B	Total
OCDF	17	B	11	0.027	0.001	0.017	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-622-SA6-SB-3.5-4.5 — Lab Sample ID: 280-37202-26

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.016	Q J	1.0	0.019	1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	0.22	J	5.2	0.039	0.01	0.0022	ng/kg	1	☼	1613B	Total
OCDD	5.8	B J	10	0.026	0.001	0.0058	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.055	Q B J	5.2	0.023	0.1	0.0055	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.062	Q B J	5.2	0.035	0.01	0.00062	ng/kg	1	☼	1613B	Total
OCDF	0.23	Q B J	10	0.020	0.001	0.00023	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-624-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-27

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.062	Q J	1.1	0.054	1	0.062	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDD	1.4	J	5.7	0.078	0.5	0.70	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	3.8	J	5.7	0.061	0.1	0.38	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	9.1		5.7	0.063	0.1	0.91	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	8.9		5.7	0.058	0.1	0.89	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	520		5.7	0.29	0.01	5.2	ng/kg	1	☼	1613B	Total
OCDD	8600	B E	11	0.090	0.001	8.6	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.062	Q B J	1.1	0.078	0.1	0.0062	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.33	Q J	5.7	0.11	0.5	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	4.4	J	5.7	0.086	0.1	0.44	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	66	Q B	5.7	0.087	0.1	6.6	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	3.1	B J	5.7	0.092	0.1	0.31	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.54	Q B J	5.7	0.12	0.1	0.054	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	110	B	5.7	0.11	0.01	1.1	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	12	B	5.7	0.16	0.01	0.12	ng/kg	1	☼	1613B	Total
OCDF	370	B	11	0.047	0.001	0.37	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-624-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-28

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.13	Q J	5.4	0.022	0.5	0.065	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.23	J	5.4	0.052	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.23	Q J	5.4	0.048	0.1	0.023	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	13		5.4	0.069	0.01	0.13	ng/kg	1	☼	1613B	Total
OCDD	250	B	11	0.073	0.001	0.25	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.16	Q J	5.4	0.039	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.89	Q B J	5.4	0.038	0.1	0.089	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q B J	5.4	0.042	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.8	B J	5.4	0.062	0.01	0.028	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.37	B J	5.4	0.080	0.01	0.0037	ng/kg	1	☼	1613B	Total
OCDF	17	B	11	0.028	0.001	0.017	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-623-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-29

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.12	Q J	5.4	0.038	0.5	0.060	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.24	Q J	5.4	0.047	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.37	J	5.4	0.043	0.1	0.037	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	6.4		5.4	0.058	0.01	0.064	ng/kg	1	☼	1613B	Total
OCDD	89	B	11	0.036	0.001	0.089	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-623-SA6-SB-0.0-0.5 (Continued) — Lab Sample ID: 280-37202-29

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.11	Q B J	1.1	0.045	0.1	0.011	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.16	Q J	5.4	0.033	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.30	Q B J	5.4	0.034	0.1	0.030	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.15	Q B J	5.4	0.035	0.1	0.015	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.13	Q B J	5.4	0.044	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.2	Q B J	5.4	0.041	0.01	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.12	Q B J	5.4	0.059	0.01	0.0012	ng/kg	1	☼	1613B	Total
OCDF	2.4	B J	11	0.036	0.001	0.0024	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-625-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-30

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.27	J	5.5	0.053	0.5	0.14	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.18	Q J	5.5	0.056	0.1	0.018	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.58	Q J	5.5	0.059	0.1	0.058	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.71	Q J	5.5	0.054	0.1	0.071	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	11		5.5	0.091	0.01	0.11	ng/kg	1	☼	1613B	Total
OCDD	150	B	11	0.035	0.001	0.15	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.22	Q B J	1.1	0.058	0.1	0.022	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.15	Q J	5.5	0.049	0.5	0.075	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.37	Q J	5.5	0.045	0.1	0.037	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.61	Q B J	5.5	0.041	0.1	0.061	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.24	B J	5.5	0.045	0.1	0.024	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.21	Q B J	5.5	0.056	0.1	0.021	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	2.7	B J	5.5	0.044	0.01	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.28	B J	5.5	0.060	0.01	0.0028	ng/kg	1	☼	1613B	Total
OCDF	5.2	B J	11	0.018	0.001	0.0052	ng/kg	1	☼	1613B	Total

Client Sample ID: EB1-121912 — Lab Sample ID: 280-37202-31

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.43	Q B J	52	0.55	0.1	0.043	pg/L	1		1613B	Total
OCDD	1.9	Q B J	100	0.75	0.001	0.0019	pg/L	1		1613B	Total

Client Sample ID: EB2-121912 — Lab Sample ID: 280-37202-32

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.67	B J	56	0.29	0.01	0.0067	pg/L	1		1613B	Total
OCDD	1.8	B J	110	0.40	0.001	0.0018	pg/L	1		1613B	Total
OCDF	0.70	Q B J	110	0.42	0.001	0.00070	pg/L	1		1613B	Total

This Detection Summary does not include radiochemical test results.

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37202-1	SL-685-SA6-SB-6.5-7.5	Solid	12/18/12 15:00	12/20/12 09:00
280-37202-2	SL-575-SA6-SB-2.0-3.0	Solid	12/17/12 15:10	12/20/12 09:00
280-37202-3	SL-576-SA6-SB-2.0-3.0	Solid	12/17/12 15:40	12/20/12 09:00
280-37202-4	SL-514-SA6-SB-4.0-5.0	Solid	12/17/12 10:00	12/20/12 09:00
280-37202-5	SL-514-SA6-SB-7.0-8.0	Solid	12/17/12 10:15	12/20/12 09:00
280-37202-6	SL-588-SA6-SB-2.0-3.0	Solid	12/18/12 12:45	12/20/12 09:00
280-37202-7	SL-617-SA6-SB-4.0-5.0	Solid	12/18/12 13:20	12/20/12 09:00
280-37202-8	SL-590-SA6-SB-4.0-5.0	Solid	12/17/12 14:15	12/20/12 09:00
280-37202-9	SL-592-SA6-SB-2.5-3.5	Solid	12/17/12 12:45	12/20/12 09:00
280-37202-10	SL-591-SA6-SB-4.0-5.0	Solid	12/17/12 13:25	12/20/12 09:00
280-37202-11	SL-575-SA6-SB-0.0-0.5	Solid	12/17/12 14:45	12/20/12 09:00
280-37202-12	SL-589-SA6-SB-0.0-0.5	Solid	12/18/12 14:15	12/20/12 09:00
280-37202-13	SL-591-SA6-SB-0.0-0.5	Solid	12/17/12 13:10	12/20/12 09:00
280-37202-14	SL-600-SA6-SB-0.0-0.5	Solid	12/18/12 13:45	12/20/12 09:00
280-37202-15	SL-588-SA6-SB-0.0-0.5	Solid	12/18/12 12:35	12/20/12 09:00
280-37202-16	SL-592-SA6-SB-0.0-0.5	Solid	12/17/12 12:35	12/20/12 09:00
280-37202-17	SL-617-SA6-SB-0.0-0.5	Solid	12/18/12 13:10	12/20/12 09:00
280-37202-18	SL-576-SA6-SB-0.0-0.5	Solid	12/17/12 15:30	12/20/12 09:00
280-37202-19	SL-514-SA6-SB-0.0-0.5	Solid	12/17/12 09:45	12/20/12 09:00
280-37202-20	SL-590-SA6-SB-0.0-0.5	Solid	12/17/12 14:00	12/20/12 09:00
280-37202-21	SL-515-SA6-SB-0.0-0.5	Solid	12/17/12 09:00	12/20/12 09:00
280-37202-22	SL-518-SA6-SB-0.0-0.5MS	Solid	12/17/12 07:55	12/20/12 09:00
280-37202-23	SL-918-SA6-SB-0.0-0.5	Solid	12/17/12 08:00	12/20/12 09:00
280-37202-24	SL-622-SA6-SB-0.0-0.5MS	Solid	12/19/12 07:55	12/20/12 09:00
280-37202-25	SL-1022-SA6-SB-0.0-0.5	Solid	12/19/12 08:00	12/20/12 09:00
280-37202-26	SL-622-SA6-SB-3.5-4.5	Solid	12/19/12 08:15	12/20/12 09:00
280-37202-27	SL-624-SA6-SB-0.0-0.5	Solid	12/19/12 08:50	12/20/12 09:00
280-37202-28	SL-624-SA6-SB-4.0-5.0	Solid	12/19/12 08:55	12/20/12 09:00
280-37202-29	SL-623-SA6-SB-0.0-0.5	Solid	12/19/12 09:20	12/20/12 09:00
280-37202-30	SL-625-SA6-SB-0.0-0.5	Solid	12/19/12 09:50	12/20/12 09:00
280-37202-31	EB1-121912	Water	12/19/12 15:00	12/20/12 09:00
280-37202-32	EB2-121912	Water	12/19/12 15:30	12/20/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-685-SA6-SB-6.5-7.5 — Lab Sample ID: 280-37202-1

Date Collected: 12/18/12 15:00 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/25/13 13:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2363023	12/28/12 10:38	TN	TAL KNX

Client Sample ID: SL-575-SA6-SB-2.0-3.0 — Lab Sample ID: 280-37202-2

Date Collected: 12/17/12 15:10 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 98**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/25/13 14:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:39	TN	TAL KNX

Client Sample ID: SL-576-SA6-SB-2.0-3.0 — Lab Sample ID: 280-37202-3

Date Collected: 12/17/12 15:40 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/25/13 15:16	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:40	TN	TAL KNX

Client Sample ID: SL-514-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-4

Date Collected: 12/17/12 10:00 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 96.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/25/13 16:17	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:40	TN	TAL KNX

Client Sample ID: SL-514-SA6-SB-7.0-8.0 — Lab Sample ID: 280-37202-5

Date Collected: 12/17/12 10:15 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 97**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/26/13 14:20	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:41	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-588-SA6-SB-2.0-3.0

Lab Sample ID: 280-37202-6
Date Collected: 12/18/12 12:45
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.9 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/26/13 15:21	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:41	TN	TAL KNX

Client Sample ID: SL-617-SA6-SB-4.0-5.0

Lab Sample ID: 280-37202-7
Date Collected: 12/18/12 13:20
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/26/13 16:20	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:41	TN	TAL KNX

Client Sample ID: SL-590-SA6-SB-4.0-5.0

Lab Sample ID: 280-37202-8
Date Collected: 12/17/12 14:15
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.6 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/26/13 17:21	JMN	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:41	TN	TAL KNX

Client Sample ID: SL-592-SA6-SB-2.5-3.5

Lab Sample ID: 280-37202-9
Date Collected: 12/17/12 12:45
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 11:56	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:42	TN	TAL KNX

Client Sample ID: SL-591-SA6-SB-4.0-5.0

Lab Sample ID: 280-37202-10
Date Collected: 12/17/12 13:25
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.6 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 12:54	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:42	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-575-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-11
Date Collected: 12/17/12 14:45
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/23/13 14:00	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:42	TN	TAL KNX

Client Sample ID: SL-589-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-12
Date Collected: 12/18/12 14:15
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/23/13 14:59	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:42	TN	TAL KNX

Client Sample ID: SL-591-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-13
Date Collected: 12/17/12 13:10
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.5 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/23/13 15:59	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:43	TN	TAL KNX

Client Sample ID: SL-600-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-14
Date Collected: 12/18/12 13:45
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/23/13 16:59	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:43	TN	TAL KNX

Client Sample ID: SL-588-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-15
Date Collected: 12/18/12 12:35
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 86

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 01:31	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:43	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-592-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-16

Date Collected: 12/17/12 12:35 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 92**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/23/13 19:00	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:44	TN	TAL KNX

Client Sample ID: SL-617-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-17

Date Collected: 12/18/12 13:10 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 93.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 02:31	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:44	TN	TAL KNX

Client Sample ID: SL-576-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-18

Date Collected: 12/17/12 15:30 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.5 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 03:32	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:44	TN	TAL KNX

Client Sample ID: SL-514-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-19

Date Collected: 12/17/12 09:45 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 04:32	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:45	TN	TAL KNX

Client Sample ID: SL-590-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-20

Date Collected: 12/17/12 14:00 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 05:32	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363023	12/28/12 10:45	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-515-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-21
Date Collected: 12/17/12 09:00
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.3 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 06:33	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:29	TN	TAL KNX

Client Sample ID: SL-518-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-37202-22
Date Collected: 12/17/12 07:55
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 07:33	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:29	TN	TAL KNX

Client Sample ID: SL-918-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-23
Date Collected: 12/17/12 08:00
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3004018_P	01/04/13 10:00		TAL KNX
Total	Analysis	1613B		1			3004018	01/24/13 08:33	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:29	TN	TAL KNX

Client Sample ID: SL-622-SA6-SB-0.0-0.5MS

Lab Sample ID: 280-37202-24
Date Collected: 12/19/12 07:55
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 13:19	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:29	TN	TAL KNX

Client Sample ID: SL-1022-SA6-SB-0.0-0.5

Lab Sample ID: 280-37202-25
Date Collected: 12/19/12 08:00
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 87

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 14:20	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:30	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: SL-622-SA6-SB-3.5-4.5 — Lab Sample ID: 280-37202-26

Date Collected: 12/19/12 08:15 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 96.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 15:22	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:30	TN	TAL KNX

Client Sample ID: SL-624-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-27

Date Collected: 12/19/12 08:50 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 88**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 16:24	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:30	TN	TAL KNX

Client Sample ID: SL-624-SA6-SB-4.0-5.0 — Lab Sample ID: 280-37202-28

Date Collected: 12/19/12 08:55 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 17:25	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:31	TN	TAL KNX

Client Sample ID: SL-623-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-29

Date Collected: 12/19/12 09:20 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 92.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 18:27	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:31	TN	TAL KNX

Client Sample ID: SL-625-SA6-SB-0.0-0.5 — Lab Sample ID: 280-37202-30

Date Collected: 12/19/12 09:50 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 90**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.1 g	20 uL	3010024_P	01/10/13 16:00		TAL KNX
Total	Analysis	1613B		1			3010024	01/23/13 19:29	KLW	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:31	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37202-1

Client Sample ID: EB1-121912

Lab Sample ID: 280-37202-31

Date Collected: 12/19/12 15:00
Matrix: Water
Date Received: 12/20/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			955 mL	20 uL	3003018_P	01/03/13 16:00		TAL KNX
Total	Analysis	1613B		1			3003018	01/10/13 13:02	KBL	TAL KNX

Client Sample ID: EB2-121912

Lab Sample ID: 280-37202-32

Date Collected: 12/19/12 15:30
Matrix: Water
Date Received: 12/20/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			896 mL	20 uL	3003018_P	01/03/13 16:00		TAL KNX
Total	Analysis	1613B		1			3003018	01/10/13 14:02	KBL	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L270408 Analytical Report 1

Sample Receipt Documentation 97

Total Number of Pages 104

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-37202-1

CDM - SSFL Area IV

Lot #: H2L270408

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 30, 2013

ANALYTICAL METHODS SUMMARY

H2L270408

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L270408

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXQA5	001	SL-685-SA6-SB-6.5-7.5	12/18/12	15:00
MXQA6	002	SL-575-SA6-SB-2.0-3.0	12/17/12	15:10
MXQA7	003	SL-576-SA6-SB-2.0-3.0	12/17/12	15:40
MXQA8	004	SL-514-SA6-SB-4.0-5.0	12/17/12	10:00
MXQA9	005	SL-514-SA6-SB-7.0-8.0	12/17/12	10:15
MXQCA	006	SL-588-SA6-SB-2.0-3.0	12/18/12	12:45
MXQCC	007	SL-617-SA6-SB-4.0-5.0	12/18/12	13:20
MXQCD	008	SL-590-SA6-SB-4.0-5.0	12/17/12	14:15
MXQCE	009	SL-592-SA6-SB-2.5-3.5	12/17/12	12:45
MXQCF	010	SL-591-SA6-SB-4.0-5.0	12/17/12	13:25
MXQCG	011	SL-575-SA6-SB-0.0-0.5	12/17/12	14:45
MXQCH	012	SL-589-SA6-SB-0.0-0.5	12/18/12	14:15
MXQCJ	013	SL-591-SA6-SB-0.0-0.5	12/17/12	13:10
MXQCK	014	SL-600-SA6-SB-0.0-0.5	12/18/12	13:45
MXQCL	015	SL-588-SA6-SB-0.0-0.5	12/18/12	12:35
MXQCM	016	SL-592-SA6-SB-0.0-0.5	12/17/12	12:35
MXQCN	017	SL-617-SA6-SB-0.0-0.5	12/18/12	13:10
MXQCP	018	SL-576-SA6-SB-0.0-0.5	12/17/12	15:30
MXQCQ	019	SL-514-SA6-SB-0.0-0.5	12/17/12	09:45
MXQCR	020	SL-590-SA6-SB-0.0-0.5	12/17/12	14:00
MXQCT	021	SL-515-SA6-SB-0.0-0.5	12/17/12	09:00
MXQCV	022	SL-518-SA6-SB-0.0-0.5MS	12/17/12	07:55
MXQCW	023	SL-918-SA6-SB-0.0-0.5	12/17/12	08:00
MXQCX	024	SL-622-SA6-SB-0.0-0.5MS	12/19/12	07:55
MXQC0	025	SL-1022-SA6-SB-0.0-0.5	12/19/12	08:00
MXQC1	026	SL-622-SA6-SB-3.5-4.5	12/19/12	08:15
MXQC2	027	SL-624-SA6-SB-0.0-0.5	12/19/12	08:50
MXQC3	028	SL-624-SA6-SB-4.0-5.0	12/19/12	08:55
MXQC4	029	SL-623-SA6-SB-0.0-0.5	12/19/12	09:20
MXQC5	030	SL-625-SA6-SB-0.0-0.5	12/19/12	09:50
MXQC6	031	EB1-121912	12/19/12	15:00
MXQC7	032	EB2-121912	12/19/12	15:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L270408

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The following samples had high recoveries of internal standard 13C-OCDD: SL-622-SA6-SB-0.0-0.5MS, SL-6224-SA6-SB-0.0-0.5 and SL-625-SA6-SB-0.0-0.5. These samples exceeded the upper acceptance criterion of 157%. The results are reported in accordance with the standard operating procedure. As indicated by the referenced method, isotope dilution techniques produce results that are independent of internal standard recovery.

The laboratory control sample for batch 3010024 had a low recovery for OCDF at 56%, the lower acceptance criterion is 63% for OCDF. As per the clients request the data is reported as is.

The matrix spike for sample SL-622-SA6-SB-0.0-0.5MS was outside QC limits for OCDF at 49%, the lower acceptance criterion is 63%. This sample was also outside limits for the relative percent difference (RPD) for OCDF at 37%, the method states that the RPD should be within 20%. The data is reported as is.

Samples SL-575-SA6-SB-0.0-0.5, SL-600-SA6-SB-0.0-0.5, SL-592-SA6-SB-0.0-0.5, SL-576-SA6-SB-0.0-0.5 and SL-624-SA6-SB-0.0-0.5 exhibited native OCDD above the upper calibration level. The method does not require further action be taken; therefore, the results were reported as is with an "E" qualifier.

All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF.

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column because the Rtx-5 column is not isomer specific for 2378-TCDF. The lower of the 2378-TCDF results are reported for each sample. The 2378-TCDF was reported from the primary Rtx-5 column for samples SL-592-SA6-SB-0.0-0.5 and SL-514-SA6-SB-4.0-5.0.

PROJECT NARRATIVE
H2L270408

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any

PROJECT NARRATIVE
H2L270408

reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard

PROJECT NARRATIVE
H2L270408

Qis = ng of internal standard added to sample
RRF = mean relative response factor of compound obtained during initial calibration
W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:
As = Sum of areas of the target peaks
Qis = ng of internal standard added to sample
Ais = Sum of areas of the internal standard peaks
RRF = mean relative response factor of compound obtained during initial calibration
W = amount of sample extracted (grams or liters)
S = percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:
1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

PROJECT NARRATIVE
H2L270408

2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-6.5-7.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 001	**Work Order #....:**	MXQA52AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	10
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/25/13	1	ND	1.1	0.25	1.0	0
1,2,3,7,8-PeCDD	1/25/13	1	ND	5.6	0.13	1.0	0
1,2,3,4,7,8-HxCDD	1/25/13	1	ND	5.6	0.11	0.1	0
1,2,3,6,7,8-HxCDD	1/25/13	1	ND	5.6	0.12	0.1	0
1,2,3,7,8,9-HxCDD	1/25/13	1	ND	5.6	0.11	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/25/13**	**1**	**3.3 Q B J**	**5.6**	**0.14**	**0.01**	**0.033**
OCDD	**1/25/13**	**1**	**75 B**	**11**	**0.21**	**0.0003**	**0.022**
2,3,7,8-TCDF	1/25/13	1	ND	1.1	0.14	0.1	0
1,2,3,7,8-PeCDF	1/25/13	1	ND	5.6	0.098	0.03	0
2,3,4,7,8-PeCDF	1/25/13	1	ND	5.6	0.091	0.3	0
1,2,3,4,7,8-HxCDF	1/25/13	1	ND	5.6	0.074	0.1	0
1,2,3,6,7,8-HxCDF	1/25/13	1	ND	5.6	0.073	0.1	0
2,3,4,6,7,8-HxCDF	1/25/13	1	ND	5.6	0.074	0.1	0
1,2,3,7,8,9-HxCDF	1/25/13	1	ND	5.6	0.089	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/25/13**	**1**	**0.24 J**	**5.6**	**0.12**	**0.01**	**0.0024**
1,2,3,4,7,8,9-HpCDF	1/25/13	1	ND	5.6	0.16	0.01	0
OCDF	**1/25/13**	**1**	**1.1 Q J**	**11**	**0.20**	**0.0003**	**0.00033**
Total TEQ Concentration							**0.058**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	67	(25 - 164)
13C-1,2,3,7,8-PeCDD	77	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	68	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	56	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	61	(23 - 140)
13C-OCDD	47	(17 - 157)
13C-2,3,7,8-TCDF	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	73	(24 - 185)
13C-2,3,4,7,8-PeCDF	73	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	64	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	54	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	60	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	60	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	55	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	55	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	75	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-685-SA6-SB-6.5-7.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-575-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 002	**Work Order #....:**	MXQA62AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	2.0
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/25/13	1	ND	0.97	0.16	1.0	0
1,2,3,7,8-PeCDD	1/25/13	1	ND	4.9	0.083	1.0	0
1,2,3,4,7,8-HxCDD	1/25/13	1	ND	4.9	0.071	0.1	0
1,2,3,6,7,8-HxCDD	1/25/13	1	ND	4.9	0.076	0.1	0
1,2,3,7,8,9-HxCDD	1/25/13	1	ND	4.9	0.069	0.1	0
1,2,3,4,6,7,8-HpCDD	1/25/13	1	ND	4.9	0.098	0.01	0
OCDD	**1/25/13**	**1**	**1.0 Q B J**	**9.7**	**0.17**	**0.0003**	**0.00030**
2,3,7,8-TCDF	1/25/13	1	ND	0.97	0.11	0.1	0
1,2,3,7,8-PeCDF	1/25/13	1	ND	4.9	0.062	0.03	0
2,3,4,7,8-PeCDF	1/25/13	1	ND	4.9	0.056	0.3	0
1,2,3,4,7,8-HxCDF	1/25/13	1	ND	4.9	0.045	0.1	0
1,2,3,6,7,8-HxCDF	1/25/13	1	ND	4.9	0.042	0.1	0
2,3,4,6,7,8-HxCDF	1/25/13	1	ND	4.9	0.049	0.1	0
1,2,3,7,8,9-HxCDF	1/25/13	1	ND	4.9	0.060	0.1	0
1,2,3,4,6,7,8-HpCDF	1/25/13	1	ND	4.9	0.068	0.01	0
1,2,3,4,7,8,9-HpCDF	1/25/13	1	ND	4.9	0.11	0.01	0
OCDF	1/25/13	1	ND	9.7	0.12	0.0003	0
Total TEQ Concentration							**0.00030**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	89	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	71	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	65	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	74	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	74	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	68	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-575-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-576-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 003	**Work Order #....:**	MXQA72AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	3.4
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/25/13	1	ND	0.99	0.15	1.0	0
1,2,3,7,8-PeCDD	**1/25/13**	**1**	**0.41 J**	**4.9**	**0.076**	**1.0**	**0.41**
1,2,3,4,7,8-HxCDD	**1/25/13**	**1**	**0.77 J**	**4.9**	**0.057**	**0.1**	**0.077**
1,2,3,6,7,8-HxCDD	**1/25/13**	**1**	**1.9 J**	**4.9**	**0.061**	**0.1**	**0.19**
1,2,3,7,8,9-HxCDD	**1/25/13**	**1**	**1.5 Q J**	**4.9**	**0.055**	**0.1**	**0.15**
1,2,3,4,6,7,8-HpCDD	**1/25/13**	**1**	**59 B**	**4.9**	**0.12**	**0.01**	**0.59**
OCDD	**1/25/13**	**1**	**1700 B**	**9.9**	**0.21**	**0.0003**	**0.51**
2,3,7,8-TCDF	**1/25/13**	**1**	**0.081 Q J**	**0.99**	**0.097**	**0.1**	**0.0081**
1,2,3,7,8-PeCDF	1/25/13	1	ND	4.9	0.061	0.03	0
2,3,4,7,8-PeCDF	1/25/13	1	ND	4.9	0.057	0.3	0
1,2,3,4,7,8-HxCDF	**1/25/13**	**1**	**0.24 Q B J**	**4.9**	**0.048**	**0.1**	**0.024**
1,2,3,6,7,8-HxCDF	**1/25/13**	**1**	**0.17 Q J**	**4.9**	**0.048**	**0.1**	**0.017**
2,3,4,6,7,8-HxCDF	**1/25/13**	**1**	**0.12 Q J**	**4.9**	**0.052**	**0.1**	**0.012**
1,2,3,7,8,9-HxCDF	1/25/13	1	ND	4.9	0.065	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/25/13**	**1**	**3.3 J**	**4.9**	**0.073**	**0.01**	**0.033**
1,2,3,4,7,8,9-HpCDF	**1/25/13**	**1**	**0.17 Q J**	**4.9**	**0.13**	**0.01**	**0.0017**
OCDF	**1/25/13**	**1**	**9.2 J**	**9.9**	**0.13**	**0.0003**	**0.0028**
Total TEQ Concentration							**2.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	88	(25 - 164)
13C-1,2,3,7,8-PeCDD	108	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	95	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	65	(17 - 157)
13C-2,3,7,8-TCDF	84	(24 - 169)
13C-1,2,3,7,8-PeCDF	104	(24 - 185)
13C-2,3,4,7,8-PeCDF	100	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	94	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	99	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-576-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 004	**Work Order #....:**	MXQA82AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	3.2
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/25/13	1	ND	1.1	0.22	1.0	0
1,2,3,7,8-PeCDD	1/25/13	1	ND	5.3	0.13	1.0	0
1,2,3,4,7,8-HxCDD	1/25/13	1	ND	5.3	0.11	0.1	0
1,2,3,6,7,8-HxCDD	1/25/13	1	ND	5.3	0.12	0.1	0
1,2,3,7,8,9-HxCDD	1/25/13	1	ND	5.3	0.11	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/25/13**	**1**	**3.1 Q B J**	**5.3**	**0.16**	**0.01**	**0.031**
OCDD	**1/25/13**	**1**	**56 B**	**11**	**0.21**	**0.0003**	**0.017**
2,3,7,8-TCDF	**1/25/13**	**1**	**1.3 Q**	**1.1**	**0.16**	**0.1**	**0.13**
1,2,3,7,8-PeCDF	**1/25/13**	**1**	**0.54 J**	**5.3**	**0.11**	**0.03**	**0.016**
2,3,4,7,8-PeCDF	**1/25/13**	**1**	**0.59 Q J**	**5.3**	**0.11**	**0.3**	**0.18**
1,2,3,4,7,8-HxCDF	**1/25/13**	**1**	**1.1 B J**	**5.3**	**0.070**	**0.1**	**0.11**
1,2,3,6,7,8-HxCDF	**1/25/13**	**1**	**0.43 J**	**5.3**	**0.070**	**0.1**	**0.043**
2,3,4,6,7,8-HxCDF	**1/25/13**	**1**	**0.65 Q J**	**5.3**	**0.071**	**0.1**	**0.065**
1,2,3,7,8,9-HxCDF	1/25/13	1	ND	5.3	0.095	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/25/13**	**1**	**3.1 J**	**5.3**	**0.10**	**0.01**	**0.031**
1,2,3,4,7,8,9-HpCDF	1/25/13	1	ND	5.3	0.17	0.01	0
OCDF	**1/25/13**	**1**	**1.6 Q J**	**11**	**0.20**	**0.0003**	**0.00048**
Total TEQ Concentration							**0.62**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(25 - 164)
13C-1,2,3,7,8-PeCDD	91	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	63	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	91	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	73	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	106	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-7.0-8.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 005	**Work Order #....:**	MXQA92AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	3.0
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/26/13	1	ND	1.0	0.15	1.0	0
1,2,3,7,8-PeCDD	1/26/13	1	ND	5.1	0.088	1.0	0
1,2,3,4,7,8-HxCDD	1/26/13	1	ND	5.1	0.055	0.1	0
1,2,3,6,7,8-HxCDD	1/26/13	1	ND	5.1	0.063	0.1	0
1,2,3,7,8,9-HxCDD	1/26/13	1	ND	5.1	0.055	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/26/13**	**1**	**0.16 B J**	**5.1**	**0.088**	**0.01**	**0.0016**
OCDD	**1/26/13**	**1**	**0.84 Q B J**	**10**	**0.092**	**0.0003**	**0.00025**
2,3,7,8-TCDF	1/26/13	1	ND	1.0	0.098	0.1	0
1,2,3,7,8-PeCDF	1/26/13	1	ND	5.1	0.058	0.03	0
2,3,4,7,8-PeCDF	1/26/13	1	ND	5.1	0.056	0.3	0
1,2,3,4,7,8-HxCDF	1/26/13	1	ND	5.1	0.042	0.1	0
1,2,3,6,7,8-HxCDF	1/26/13	1	ND	5.1	0.042	0.1	0
2,3,4,6,7,8-HxCDF	1/26/13	1	ND	5.1	0.043	0.1	0
1,2,3,7,8,9-HxCDF	1/26/13	1	ND	5.1	0.052	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/26/13**	**1**	**0.079 J**	**5.1**	**0.062**	**0.01**	**0.00079**
1,2,3,4,7,8,9-HpCDF	1/26/13	1	ND	5.1	0.11	0.01	0
OCDF	1/26/13	1	ND	10	0.077	0.0003	0
Total TEQ Concentration							**0.0026**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	93	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	82	(23 - 140)
13C-OCDD	73	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	92	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	88	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	64	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-7.0-8.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-588-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 006	**Work Order #....:**	MXQCA2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	3.1
Initial Wgt/Vol :	9.9 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/26/13	1	ND	1.0	0.20	1.0	0
1,2,3,7,8-PeCDD	1/26/13	1	ND	5.2	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/26/13	1	ND	5.2	0.093	0.1	0
1,2,3,6,7,8-HxCDD	1/26/13	1	ND	5.2	0.10	0.1	0
1,2,3,7,8,9-HxCDD	**1/26/13**	**1**	**0.27 Q J**	**5.2**	**0.092**	**0.1**	**0.027**
1,2,3,4,6,7,8-HpCDD	**1/26/13**	**1**	**7.2 B**	**5.2**	**0.13**	**0.01**	**0.072**
OCDD	**1/26/13**	**1**	**87 B**	**10**	**0.12**	**0.0003**	**0.026**
2,3,7,8-TCDF	1/26/13	1	ND	1.0	0.14	0.1	0
1,2,3,7,8-PeCDF	1/26/13	1	ND	5.2	0.079	0.03	0
2,3,4,7,8-PeCDF	1/26/13	1	ND	5.2	0.078	0.3	0
1,2,3,4,7,8-HxCDF	**1/26/13**	**1**	**0.084 Q B J**	**5.2**	**0.057**	**0.1**	**0.0084**
1,2,3,6,7,8-HxCDF	**1/26/13**	**1**	**0.087 Q J**	**5.2**	**0.055**	**0.1**	**0.0087**
2,3,4,6,7,8-HxCDF	**1/26/13**	**1**	**0.15 Q J**	**5.2**	**0.057**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	1/26/13	1	ND	5.2	0.070	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/26/13**	**1**	**4.9 J**	**5.2**	**0.086**	**0.01**	**0.049**
1,2,3,4,7,8,9-HpCDF	1/26/13	1	ND	5.2	0.14	0.01	0
OCDF	**1/26/13**	**1**	**5.9 J**	**10**	**0.14**	**0.0003**	**0.0018**
Total TEQ Concentration							**0.21**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	75	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
13C-OCDD	75	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	87	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-588-SA6-SB-2.0-3.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-617-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 007	**Work Order #....:**	MXQCC2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	4.2
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/26/13	1	ND	1.1	0.20	1.0	0
1,2,3,7,8-PeCDD	1/26/13	1	ND	5.4	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/26/13	1	ND	5.4	0.094	0.1	0
1,2,3,6,7,8-HxCDD	**1/26/13**	**1**	**0.19 J**	**5.4**	**0.11**	**0.1**	**0.019**
1,2,3,7,8,9-HxCDD	1/26/13	1	ND	5.4	0.096	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/26/13**	**1**	**0.13 Q B J**	**5.4**	**0.13**	**0.01**	**0.0013**
OCDD	**1/26/13**	**1**	**2.6 B J**	**11**	**0.16**	**0.0003**	**0.00078**
2,3,7,8-TCDF	1/26/13	1	ND	1.1	0.13	0.1	0
1,2,3,7,8-PeCDF	1/26/13	1	ND	5.4	0.075	0.03	0
2,3,4,7,8-PeCDF	1/26/13	1	ND	5.4	0.075	0.3	0
1,2,3,4,7,8-HxCDF	1/26/13	1	ND	5.4	0.061	0.1	0
1,2,3,6,7,8-HxCDF	1/26/13	1	ND	5.4	0.064	0.1	0
2,3,4,6,7,8-HxCDF	1/26/13	1	ND	5.4	0.061	0.1	0
1,2,3,7,8,9-HxCDF	**1/26/13**	**1**	**0.13 Q J**	**5.4**	**0.081**	**0.1**	**0.013**
1,2,3,4,6,7,8-HpCDF	1/26/13	1	ND	5.4	0.084	0.01	0
1,2,3,4,7,8,9-HpCDF	1/26/13	1	ND	5.4	0.15	0.01	0
OCDF	1/26/13	1	ND	11	0.15	0.0003	0
Total TEQ Concentration							**0.034**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	95	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	62	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	98	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	91	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	62	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-617-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-590-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 008	**Work Order #....:**	MXQCD2AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	6.4
Initial Wgt/Vol :	9.6 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/26/13	1	ND	1.1	0.17	1.0	0
1,2,3,7,8-PeCDD	1/26/13	1	ND	5.6	0.11	1.0	0
1,2,3,4,7,8-HxCDD	1/26/13	1	ND	5.6	0.074	0.1	0
1,2,3,6,7,8-HxCDD	1/26/13	1	ND	5.6	0.080	0.1	0
1,2,3,7,8,9-HxCDD	1/26/13	1	ND	5.6	0.072	0.1	0
1,2,3,4,6,7,8-HpCDD	1/26/13	1	ND	5.6	0.10	0.01	0
OCDD	**1/26/13**	**1**	**1.5 B Q J**	**11**	**0.11**	**0.0003**	**0.00045**
2,3,7,8-TCDF	1/26/13	1	ND	1.1	0.12	0.1	0
1,2,3,7,8-PeCDF	1/26/13	1	ND	5.6	0.069	0.03	0
2,3,4,7,8-PeCDF	1/26/13	1	ND	5.6	0.072	0.3	0
1,2,3,4,7,8-HxCDF	1/26/13	1	ND	5.6	0.051	0.1	0
1,2,3,6,7,8-HxCDF	1/26/13	1	ND	5.6	0.051	0.1	0
2,3,4,6,7,8-HxCDF	1/26/13	1	ND	5.6	0.052	0.1	0
1,2,3,7,8,9-HxCDF	1/26/13	1	ND	5.6	0.065	0.1	0
1,2,3,4,6,7,8-HpCDF	1/26/13	1	ND	5.6	0.074	0.01	0
1,2,3,4,7,8,9-HpCDF	1/26/13	1	ND	5.6	0.14	0.01	0
OCDF	1/26/13	1	ND	11	0.10	0.0003	0
Total TEQ Concentration							**0.00045**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	97	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	74	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	100	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	89	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	65	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-590-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-592-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 009	**Work Order #....:**	MXQCE2AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	4.5
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.0	0.15	1.0	0
1,2,3,7,8-PeCDD	1/28/13	1	ND	5.1	0.098	1.0	0
1,2,3,4,7,8-HxCDD	1/28/13	1	ND	5.1	0.066	0.1	0
1,2,3,6,7,8-HxCDD	1/28/13	1	ND	5.1	0.068	0.1	0
1,2,3,7,8,9-HxCDD	**1/28/13**	**1**	**0.16 J**	**5.1**	**0.063**	**0.1**	**0.016**
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**1.3 B J**	**5.1**	**0.078**	**0.01**	**0.013**
OCDD	**1/28/13**	**1**	**17 B**	**10**	**0.12**	**0.0003**	**0.0051**
2,3,7,8-TCDF	1/28/13	1	ND	1.0	0.10	0.1	0
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.1	0.065	0.03	0
2,3,4,7,8-PeCDF	1/28/13	1	ND	5.1	0.064	0.3	0
1,2,3,4,7,8-HxCDF	1/28/13	1	ND	5.1	0.044	0.1	0
1,2,3,6,7,8-HxCDF	1/28/13	1	ND	5.1	0.044	0.1	0
2,3,4,6,7,8-HxCDF	1/28/13	1	ND	5.1	0.045	0.1	0
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.1	0.059	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**0.30 Q J**	**5.1**	**0.074**	**0.01**	**0.0030**
1,2,3,4,7,8,9-HpCDF	1/28/13	1	ND	5.1	0.12	0.01	0
OCDF	**1/28/13**	**1**	**0.43 J**	**10**	**0.097**	**0.0003**	**0.00013**
Total TEQ Concentration							**0.037**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	67	(17 - 157)
13C-2,3,7,8-TCDF	78	(24 - 169)
13C-1,2,3,7,8-PeCDF	99	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	88	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	68	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-592-SA6-SB-2.5-3.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-591-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 010	**Work Order #....:**	MXQCF2AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	5.8
Initial Wgt/Vol :	9.6 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.1	0.19	1.0	0
1,2,3,7,8-PeCDD	1/28/13	1	ND	5.5	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/28/13	1	ND	5.5	0.11	0.1	0
1,2,3,6,7,8-HxCDD	1/28/13	1	ND	5.5	0.12	0.1	0
1,2,3,7,8,9-HxCDD	1/28/13	1	ND	5.5	0.11	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**4.8 B J**	**5.5**	**0.13**	**0.01**	**0.048**
OCDD	**1/28/13**	**1**	**43 B**	**11**	**0.19**	**0.0003**	**0.013**
2,3,7,8-TCDF	1/28/13	1	ND	1.1	0.10	0.1	0
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.5	0.084	0.03	0
2,3,4,7,8-PeCDF	1/28/13	1	ND	5.5	0.086	0.3	0
1,2,3,4,7,8-HxCDF	**1/28/13**	**1**	**0.16 B J**	**5.5**	**0.063**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDF	**1/28/13**	**1**	**0.065 Q J**	**5.5**	**0.062**	**0.1**	**0.0065**
2,3,4,6,7,8-HxCDF	**1/28/13**	**1**	**0.13 J**	**5.5**	**0.069**	**0.1**	**0.013**
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.5	0.093	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**2.6 J**	**5.5**	**0.11**	**0.01**	**0.026**
1,2,3,4,7,8,9-HpCDF	1/28/13	1	ND	5.5	0.20	0.01	0
OCDF	**1/28/13**	**1**	**2.7 J**	**11**	**0.15**	**0.0003**	**0.00081**
Total TEQ Concentration							**0.12**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	61	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	94	(24 - 185)
13C-2,3,4,7,8-PeCDF	82	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	94	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	59	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-591-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-575-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 011	**Work Order #....:**	MXQCG1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	9.1
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.1	0.19	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**1.2 J**	**5.5**	**0.11**	**1.0**	**1.2**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**2.3 J**	**5.5**	**0.087**	**0.1**	**0.23**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**6.2**	**5.5**	**0.088**	**0.1**	**0.62**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**6.1**	**5.5**	**0.082**	**0.1**	**0.61**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**200 B**	**5.5**	**0.11**	**0.01**	**2.0**
OCDD	**1/23/13**	**1**	**4500 B E**	**11**	**0.11**	**0.0003**	**1.4**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.12 Q J**	**1.1**	**0.12**	**0.1**	**0.012**
1,2,3,7,8-PeCDF	**1/23/13**	**1**	**0.18 Q J**	**5.5**	**0.085**	**0.03**	**0.0054**
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**0.16 Q J**	**5.5**	**0.082**	**0.3**	**0.048**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.77 J**	**5.5**	**0.056**	**0.1**	**0.077**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.23 Q J**	**5.5**	**0.053**	**0.1**	**0.023**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.40 J**	**5.5**	**0.052**	**0.1**	**0.040**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.11 J**	**5.5**	**0.059**	**0.1**	**0.011**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**10**	**5.5**	**0.068**	**0.01**	**0.10**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**0.98 B J**	**5.5**	**0.11**	**0.01**	**0.0098**
OCDF	**1/23/13**	**1**	**25 B**	**11**	**0.066**	**0.0003**	**0.0075**
Total TEQ Concentration							**6.3**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	101	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	89	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
13C-OCDD	97	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	99	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	84	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	75	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	79	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-575-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-589-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 012	**Work Order #....:**	MXQCH1AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	11
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.2	0.20	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**0.31 Q J**	**5.8**	**0.12**	**1.0**	**0.31**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**0.42 J**	**5.8**	**0.082**	**0.1**	**0.042**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**1.1 J**	**5.8**	**0.092**	**0.1**	**0.11**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**0.94 J**	**5.8**	**0.081**	**0.1**	**0.094**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**21 B**	**5.8**	**0.11**	**0.01**	**0.21**
OCDD	**1/23/13**	**1**	**240 B**	**12**	**0.12**	**0.0003**	**0.072**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.21 Q J**	**1.2**	**0.14**	**0.1**	**0.021**
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.8	0.10	0.03	0
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**0.11 Q J**	**5.8**	**0.097**	**0.3**	**0.033**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.25 Q J**	**5.8**	**0.058**	**0.1**	**0.025**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.26 Q J**	**5.8**	**0.057**	**0.1**	**0.026**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.23 J**	**5.8**	**0.059**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.18 J**	**5.8**	**0.068**	**0.1**	**0.018**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**3.4 J**	**5.8**	**0.089**	**0.01**	**0.034**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**0.41 Q B J**	**5.8**	**0.14**	**0.01**	**0.0041**
OCDF	**1/23/13**	**1**	**4.9 B J**	**12**	**0.12**	**0.0003**	**0.0015**
Total TEQ Concentration							**1.0**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	99	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	100	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	77	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	91	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	67	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-589-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-591-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 013	**Work Order #....:**	MXQCJ1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	10
Initial Wgt/Vol :	9.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.2	0.21	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**0.28 Q J**	**5.9**	**0.13**	**1.0**	**0.28**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**0.52 J**	**5.9**	**0.11**	**0.1**	**0.052**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**0.79 Q J**	**5.9**	**0.11**	**0.1**	**0.079**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**0.93 Q J**	**5.9**	**0.11**	**0.1**	**0.093**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**26 B**	**5.9**	**0.16**	**0.01**	**0.26**
OCDD	**1/23/13**	**1**	**250 B**	**12**	**0.11**	**0.0003**	**0.075**
2,3,7,8-TCDF	1/23/13	1	ND	1.2	0.14	0.1	0
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.9	0.10	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	ND	5.9	0.095	0.3	0
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.49 Q J**	**5.9**	**0.072**	**0.1**	**0.049**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.98 J**	**5.9**	**0.073**	**0.1**	**0.098**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.63 J**	**5.9**	**0.071**	**0.1**	**0.063**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.22 J**	**5.9**	**0.082**	**0.1**	**0.022**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**16**	**5.9**	**0.11**	**0.01**	**0.16**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**1.2 B J**	**5.9**	**0.14**	**0.01**	**0.012**
OCDF	**1/23/13**	**1**	**17 B**	**12**	**0.091**	**0.0003**	**0.0051**
Total TEQ Concentration							**1.2**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	67	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	78	(23 - 140)
13C-OCDD	79	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	83	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	70	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	59	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	71	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	70	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	70	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-591-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-600-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 014	**Work Order #....:**	MXQCK1AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	10
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/23/13**	**1**	**0.45 Q J**	**1.2**	**0.098**	**1.0**	**0.45**
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**6.5**	**5.8**	**0.075**	**1.0**	**6.5**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**9.7**	**5.8**	**0.055**	**0.1**	**0.97**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**31**	**5.8**	**0.062**	**0.1**	**3.1**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**23**	**5.8**	**0.055**	**0.1**	**2.3**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**640 B**	**5.8**	**0.063**	**0.01**	**6.4**
OCDD	**1/23/13**	**1**	**5600 B E**	**12**	**0.12**	**0.0003**	**1.7**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.84 Q J**	**1.2**	**0.065**	**0.1**	**0.084**
1,2,3,7,8-PeCDF	**1/23/13**	**1**	**1.5 J**	**5.8**	**0.070**	**0.03**	**0.045**
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**1.9 J**	**5.8**	**0.068**	**0.3**	**0.57**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**8.1**	**5.8**	**0.033**	**0.1**	**0.81**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**5.7 Q J**	**5.8**	**0.033**	**0.1**	**0.57**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**3.5 J**	**5.8**	**0.033**	**0.1**	**0.35**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.52 J**	**5.8**	**0.042**	**0.1**	**0.052**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**63**	**5.8**	**0.060**	**0.01**	**0.63**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**4.4 B J**	**5.8**	**0.099**	**0.01**	**0.044**
OCDF	**1/23/13**	**1**	**29 B**	**12**	**0.052**	**0.0003**	**0.0087**
Total TEQ Concentration							**25**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(25 - 164)
13C-1,2,3,7,8-PeCDD	105	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	88	(23 - 140)
13C-OCDD	88	(17 - 157)
13C-2,3,7,8-TCDF	83	(24 - 169)
13C-1,2,3,7,8-PeCDF	101	(24 - 185)
13C-2,3,4,7,8-PeCDF	95	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	72	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	79	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	69	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-600-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-588-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 015	**Work Order #....:**	MXQCL1AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	14
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.18	1.0	0
1,2,3,7,8-PeCDD	**1/24/13**	**1**	**0.25 Q J**	**5.7**	**0.097**	**1.0**	**0.25**
1,2,3,4,7,8-HxCDD	**1/24/13**	**1**	**0.22 J**	**5.7**	**0.085**	**0.1**	**0.022**
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**0.45 J**	**5.7**	**0.086**	**0.1**	**0.045**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**0.51 Q J**	**5.7**	**0.080**	**0.1**	**0.051**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**9.8 B**	**5.7**	**0.12**	**0.01**	**0.098**
OCDD	**1/24/13**	**1**	**110 B**	**11**	**0.12**	**0.0003**	**0.033**
2,3,7,8-TCDF	**1/24/13**	**1**	**0.26 Q J**	**1.1**	**0.11**	**0.1**	**0.026**
1,2,3,7,8-PeCDF	1/24/13	1	ND	5.7	0.078	0.03	0
2,3,4,7,8-PeCDF	**1/24/13**	**1**	**0.082 Q J**	**5.7**	**0.077**	**0.3**	**0.025**
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**0.24 Q J**	**5.7**	**0.047**	**0.1**	**0.024**
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.26 Q J**	**5.7**	**0.046**	**0.1**	**0.026**
2,3,4,6,7,8-HxCDF	**1/24/13**	**1**	**0.21 J**	**5.7**	**0.050**	**0.1**	**0.021**
1,2,3,7,8,9-HxCDF	**1/24/13**	**1**	**0.12 Q J**	**5.7**	**0.067**	**0.1**	**0.012**
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**3.9 J**	**5.7**	**0.080**	**0.01**	**0.039**
1,2,3,4,7,8,9-HpCDF	**1/24/13**	**1**	**0.18 Q B J**	**5.7**	**0.13**	**0.01**	**0.0018**
OCDF	**1/24/13**	**1**	**4.9 B J**	**11**	**0.13**	**0.0003**	**0.0015**
Total TEQ Concentration							0.67

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(25 - 164)
13C-1,2,3,7,8-PeCDD	94	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	98	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	81	(23 - 140)
13C-OCDD	70	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	97	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	94	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	78	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	82	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-588-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-592-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 016	**Work Order #....:**	MXQCM1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	8.0
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/23/13**	**1**	**0.84 Q J**	**1.1**	**0.22**	**1.0**	**0.84**
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**7.4 Q**	**5.4**	**0.15**	**1.0**	**7.4**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**17**	**5.4**	**0.10**	**0.1**	**1.7**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**48**	**5.4**	**0.099**	**0.1**	**4.8**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**42**	**5.4**	**0.094**	**0.1**	**4.2**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**910 B**	**5.4**	**0.22**	**0.01**	**9.1**
OCDD	**1/23/13**	**1**	**6200 B E**	**11**	**0.15**	**0.0003**	**1.9**
2,3,7,8-TCDF	**1/23/13**	**1**	**1.2**	**1.1**	**0.15**	**0.1**	**0.12**
1,2,3,7,8-PeCDF	**1/23/13**	**1**	**1.6 J**	**5.4**	**0.14**	**0.03**	**0.048**
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**2.2 J**	**5.4**	**0.14**	**0.3**	**0.66**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**11 Q**	**5.4**	**0.087**	**0.1**	**1.1**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**14 Q**	**5.4**	**0.088**	**0.1**	**1.4**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**5.1 J**	**5.4**	**0.095**	**0.1**	**0.51**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**1.6 J**	**5.4**	**0.11**	**0.1**	**0.16**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**170**	**5.4**	**0.14**	**0.01**	**1.7**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**39 B**	**5.4**	**0.19**	**0.01**	**0.39**
OCDF	**1/23/13**	**1**	**120 B**	**11**	**0.17**	**0.0003**	**0.036**
Total TEQ Concentration							**36**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	71	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	59	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	80	(23 - 140)
13C-OCDD	54	(17 - 157)
13C-2,3,7,8-TCDF	68	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	64	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	58	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	59	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	59	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	50	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	43	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-592-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-617-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 017	**Work Order #....:**	MXQCN1AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	6.7
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.23	1.0	0
1,2,3,7,8-PeCDD	**1/24/13**	**1**	**0.43 Q J**	**5.3**	**0.14**	**1.0**	**0.43**
1,2,3,4,7,8-HxCDD	**1/24/13**	**1**	**0.53 Q J**	**5.3**	**0.12**	**0.1**	**0.053**
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**1.9 J**	**5.3**	**0.13**	**0.1**	**0.19**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**1.8 J**	**5.3**	**0.12**	**0.1**	**0.18**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**37 B**	**5.3**	**0.18**	**0.01**	**0.37**
OCDD	**1/24/13**	**1**	**410 B**	**11**	**0.20**	**0.0003**	**0.12**
2,3,7,8-TCDF	**1/24/13**	**1**	**0.61 Q J**	**1.1**	**0.14**	**0.1**	**0.061**
1,2,3,7,8-PeCDF	**1/24/13**	**1**	**0.20 Q J**	**5.3**	**0.11**	**0.03**	**0.0060**
2,3,4,7,8-PeCDF	**1/24/13**	**1**	**0.60 Q J**	**5.3**	**0.11**	**0.3**	**0.18**
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**0.80 J**	**5.3**	**0.069**	**0.1**	**0.080**
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.54 J**	**5.3**	**0.069**	**0.1**	**0.054**
2,3,4,6,7,8-HxCDF	**1/24/13**	**1**	**0.35 Q J**	**5.3**	**0.071**	**0.1**	**0.035**
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.3	0.11	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**6.4**	**5.3**	**0.11**	**0.01**	**0.064**
1,2,3,4,7,8,9-HpCDF	**1/24/13**	**1**	**0.47 Q B J**	**5.3**	**0.20**	**0.01**	**0.0047**
OCDF	**1/24/13**	**1**	**12 B**	**11**	**0.19**	**0.0003**	**0.0036**
Total TEQ Concentration							**1.8**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	83	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	106	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	76	(23 - 140)
13C-OCDD	61	(17 - 157)
13C-2,3,7,8-TCDF	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	77	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	96	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	89	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	79	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	65	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-617-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-576-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 018	**Work Order #....:**	MXQCP1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	8.6
Initial Wgt/Vol :	10.5 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/24/13**	**1**	**0.30 Q J**	**1.0**	**0.20**	**1.0**	**0.30**
1,2,3,7,8-PeCDD	**1/24/13**	**1**	**2.8 J**	**5.2**	**0.12**	**1.0**	**2.8**
1,2,3,4,7,8-HxCDD	**1/24/13**	**1**	**4.7 J**	**5.2**	**0.12**	**0.1**	**0.47**
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**11**	**5.2**	**0.14**	**0.1**	**1.1**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**10**	**5.2**	**0.12**	**0.1**	**1.0**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**290 B**	**5.2**	**0.18**	**0.01**	**2.9**
OCDD	**1/24/13**	**1**	**6200 B E**	**10**	**0.22**	**0.0003**	**1.9**
2,3,7,8-TCDF	**1/24/13**	**1**	**0.26 Q J**	**1.0**	**0.12**	**0.1**	**0.026**
1,2,3,7,8-PeCDF	**1/24/13**	**1**	**0.18 Q J**	**5.2**	**0.093**	**0.03**	**0.0054**
2,3,4,7,8-PeCDF	**1/24/13**	**1**	**0.23 Q J**	**5.2**	**0.094**	**0.3**	**0.069**
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**1.0 J**	**5.2**	**0.058**	**0.1**	**0.10**
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.43 J**	**5.2**	**0.060**	**0.1**	**0.043**
2,3,4,6,7,8-HxCDF	**1/24/13**	**1**	**0.51 J**	**5.2**	**0.064**	**0.1**	**0.051**
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.2	0.081	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**14**	**5.2**	**0.095**	**0.01**	**0.14**
1,2,3,4,7,8,9-HpCDF	**1/24/13**	**1**	**0.73 B J**	**5.2**	**0.17**	**0.01**	**0.0073**
OCDF	**1/24/13**	**1**	**37 B**	**10**	**0.15**	**0.0003**	**0.011**
Total TEQ Concentration							**11**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	101	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	69	(23 - 140)
13C-OCDD	64	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	90	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	90	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	71	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	59	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-576-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 019	**Work Order #....:**	MXQCQ1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	11
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.20	1.0	0
1,2,3,7,8-PeCDD	**1/24/13**	**1**	**0.10 Q J**	**5.5**	**0.11**	**1.0**	**0.10**
1,2,3,4,7,8-HxCDD	**1/24/13**	**1**	**0.21 J**	**5.5**	**0.078**	**0.1**	**0.021**
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**0.66 J**	**5.5**	**0.089**	**0.1**	**0.066**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**0.43 J**	**5.5**	**0.078**	**0.1**	**0.043**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**25 B**	**5.5**	**0.17**	**0.01**	**0.25**
OCDD	**1/24/13**	**1**	**370 B**	**11**	**0.15**	**0.0003**	**0.11**
2,3,7,8-TCDF	1/24/13	1	ND	1.1	0.12	0.1	0
1,2,3,7,8-PeCDF	**1/24/13**	**1**	**0.053 Q J**	**5.5**	**0.085**	**0.03**	**0.0016**
2,3,4,7,8-PeCDF	**1/24/13**	**1**	**0.071 Q J**	**5.5**	**0.084**	**0.3**	**0.021**
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**0.17 J**	**5.5**	**0.062**	**0.1**	**0.017**
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.24 J**	**5.5**	**0.060**	**0.1**	**0.024**
2,3,4,6,7,8-HxCDF	1/24/13	1	ND	5.5	0.060	0.1	0
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.5	0.080	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**2.7 Q J**	**5.5**	**0.13**	**0.01**	**0.027**
1,2,3,4,7,8,9-HpCDF	**1/24/13**	**1**	**0.29 Q B J**	**5.5**	**0.25**	**0.01**	**0.0029**
OCDF	**1/24/13**	**1**	**10 B J**	**11**	**0.13**	**0.0003**	**0.0030**
Total TEQ Concentration							**0.69**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	80	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	69	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	68	(23 - 140)
13C-OCDD	62	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	63	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-514-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-590-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 020	**Work Order #....:**	MXQCR1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	10
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.33	1.0	0
1,2,3,7,8-PeCDD	1/24/13	1	ND	5.7	0.17	1.0	0
1,2,3,4,7,8-HxCDD	1/24/13	1	ND	5.7	0.15	0.1	0
1,2,3,6,7,8-HxCDD	1/24/13	1	ND	5.7	0.17	0.1	0
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**0.49 J**	**5.7**	**0.15**	**0.1**	**0.049**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**9.7 B**	**5.7**	**0.27**	**0.01**	**0.097**
OCDD	**1/24/13**	**1**	**120 B**	**11**	**0.37**	**0.0003**	**0.036**
2,3,7,8-TCDF	1/24/13	1	ND	1.1	0.19	0.1	0
1,2,3,7,8-PeCDF	1/24/13	1	ND	5.7	0.15	0.03	0
2,3,4,7,8-PeCDF	1/24/13	1	ND	5.7	0.15	0.3	0
1,2,3,4,7,8-HxCDF	1/24/13	1	ND	5.7	0.096	0.1	0
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.24 Q J**	**5.7**	**0.097**	**0.1**	**0.024**
2,3,4,6,7,8-HxCDF	**1/24/13**	**1**	**0.30 J**	**5.7**	**0.11**	**0.1**	**0.030**
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.7	0.14	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**6.5**	**5.7**	**0.20**	**0.01**	**0.065**
1,2,3,4,7,8,9-HpCDF	1/24/13	1	ND	5.7	0.35	0.01	0
OCDF	**1/24/13**	**1**	**8.7 B J**	**11**	**0.31**	**0.0003**	**0.0026**
Total TEQ Concentration							**0.30**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	100	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	69	(23 - 140)
13C-OCDD	55	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
13C-1,2,3,7,8-PeCDF	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	78	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	95	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	82	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	88	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	63	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-590-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-515-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 021	**Work Order #....:**	MXQCT1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	9.3
Initial Wgt/Vol :	10.3 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	**1/24/13**	**1**	**0.13 Q J**	**5.4**	**0.067**	**1.0**	**0.13**
1,2,3,4,7,8-HxCDD	**1/24/13**	**1**	**0.16 J**	**5.4**	**0.043**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**0.53 J**	**5.4**	**0.044**	**0.1**	**0.053**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**0.24 J**	**5.4**	**0.041**	**0.1**	**0.024**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**21 B**	**5.4**	**0.059**	**0.01**	**0.21**
OCDD	**1/24/13**	**1**	**310 B**	**11**	**0.069**	**0.0003**	**0.093**
2,3,7,8-TCDF	1/24/13	1	ND	1.1	0.074	0.1	0
1,2,3,7,8-PeCDF	**1/24/13**	**1**	**0.034 Q J**	**5.4**	**0.044**	**0.03**	**0.0010**
2,3,4,7,8-PeCDF	1/24/13	1	ND	5.4	0.041	0.3	0
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**0.12 Q J**	**5.4**	**0.030**	**0.1**	**0.012**
1,2,3,6,7,8-HxCDF	**1/24/13**	**1**	**0.062 Q J**	**5.4**	**0.031**	**0.1**	**0.0062**
2,3,4,6,7,8-HxCDF	**1/24/13**	**1**	**0.075 Q J**	**5.4**	**0.031**	**0.1**	**0.0075**
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.4	0.041	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**2.3 J**	**5.4**	**0.052**	**0.01**	**0.023**
1,2,3,4,7,8,9-HpCDF	**1/24/13**	**1**	**0.21 Q B J**	**5.4**	**0.072**	**0.01**	**0.0021**
OCDF	**1/24/13**	**1**	**5.0 B J**	**11**	**0.052**	**0.0003**	**0.0015**
Total TEQ Concentration							**0.58**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	78	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	75	(23 - 140)
13C-OCDD	69	(17 - 157)
13C-2,3,7,8-TCDF	66	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	75	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	74	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	62	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	65	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	76	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-515-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-518-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 022	**Work Order #....:**	MXQCV1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	8.4
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.18	1.0	0
1,2,3,7,8-PeCDD	1/24/13	1	ND	5.4	0.096	1.0	0
1,2,3,4,7,8-HxCDD	1/24/13	1	ND	5.4	0.076	0.1	0
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**0.44 J**	**5.4**	**0.080**	**0.1**	**0.044**
1,2,3,7,8,9-HxCDD	**1/24/13**	**1**	**0.17 Q J**	**5.4**	**0.073**	**0.1**	**0.017**
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**16 B**	**5.4**	**0.13**	**0.01**	**0.16**
OCDD	**1/24/13**	**1**	**180 B**	**11**	**0.18**	**0.0003**	**0.054**
2,3,7,8-TCDF	1/24/13	1	ND	1.1	0.12	0.1	0
1,2,3,7,8-PeCDF	1/24/13	1	ND	5.4	0.074	0.03	0
2,3,4,7,8-PeCDF	1/24/13	1	ND	5.4	0.071	0.3	0
1,2,3,4,7,8-HxCDF	**1/24/13**	**1**	**0.14 J**	**5.4**	**0.057**	**0.1**	**0.014**
1,2,3,6,7,8-HxCDF	1/24/13	1	ND	5.4	0.055	0.1	0
2,3,4,6,7,8-HxCDF	1/24/13	1	ND	5.4	0.059	0.1	0
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.4	0.075	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**2.4 Q J**	**5.4**	**0.095**	**0.01**	**0.024**
1,2,3,4,7,8,9-HpCDF	1/24/13	1	ND	5.4	0.16	0.01	0
OCDF	**1/24/13**	**1**	**6.2 B J**	**11**	**0.13**	**0.0003**	**0.0019**
Total TEQ Concentration							**0.31**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	82	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	72	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	69	(23 - 140)
13C-OCDD	60	(17 - 157)
13C-2,3,7,8-TCDF	71	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	76	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	80	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	68	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	67	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	59	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-518-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-918-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 023	**Work Order #....:**	MXQCW1AC	**Matrix.....:**	SO
Date Sampled....:	12/17/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/04/13			**Dilution Factor:**	1
Prep Batch # ....:	3004018			**Percent Moisture:**	6.6
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/24/13	1	ND	1.1	0.16	1.0	0
1,2,3,7,8-PeCDD	1/24/13	1	ND	5.4	0.090	1.0	0
1,2,3,4,7,8-HxCDD	1/24/13	1	ND	5.4	0.085	0.1	0
1,2,3,6,7,8-HxCDD	**1/24/13**	**1**	**0.28 Q J**	**5.4**	**0.084**	**0.1**	**0.028**
1,2,3,7,8,9-HxCDD	1/24/13	1	ND	5.4	0.079	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/24/13**	**1**	**10 B**	**5.4**	**0.12**	**0.01**	**0.10**
OCDD	**1/24/13**	**1**	**120 B**	**11**	**0.18**	**0.0003**	**0.036**
2,3,7,8-TCDF	1/24/13	1	ND	1.1	0.096	0.1	0
1,2,3,7,8-PeCDF	1/24/13	1	ND	5.4	0.066	0.03	0
2,3,4,7,8-PeCDF	1/24/13	1	ND	5.4	0.063	0.3	0
1,2,3,4,7,8-HxCDF	1/24/13	1	ND	5.4	0.046	0.1	0
1,2,3,6,7,8-HxCDF	1/24/13	1	ND	5.4	0.044	0.1	0
2,3,4,6,7,8-HxCDF	1/24/13	1	ND	5.4	0.055	0.1	0
1,2,3,7,8,9-HxCDF	1/24/13	1	ND	5.4	0.068	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/24/13**	**1**	**1.1 Q J**	**5.4**	**0.095**	**0.01**	**0.011**
1,2,3,4,7,8,9-HpCDF	1/24/13	1	ND	5.4	0.18	0.01	0
OCDF	**1/24/13**	**1**	**3.2 B J**	**11**	**0.13**	**0.0003**	**0.00096**
Total TEQ Concentration							**0.18**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	95	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	78	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	77	(23 - 140)
13C-OCDD	62	(17 - 157)
13C-2,3,7,8-TCDF	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	96	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	82	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-918-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-622-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 024	Work Order #....:	MXQCX1AC	Matrix.....:	SO
Date Sampled....:	12/19/12	Date Received....:	12/27/12	Units....:	ng/kg
Prep Date....:	01/10/13			Dilution Factor:	1
Prep Batch # ....:	3010024			Percent Moisture:	12
Initial Wgt/Vol :	10.1 g	Instrument ID....:	D11A	Method....:	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	0.041 Q J	1.1	0.036	1.0	0.041
1,2,3,7,8-PeCDD	1/23/13	1	0.31 Q J	5.6	0.045	1.0	0.31
1,2,3,4,7,8-HxCDD	1/23/13	1	0.38 Q J	5.6	0.055	0.1	0.038
1,2,3,6,7,8-HxCDD	1/23/13	1	0.94 J	5.6	0.056	0.1	0.094
1,2,3,7,8,9-HxCDD	1/23/13	1	1.1 J	5.6	0.052	0.1	0.11
1,2,3,4,6,7,8-HpCDD	1/23/13	1	21	5.6	0.090	0.01	0.21
OCDD	1/23/13	1	300 B	11	0.027	0.0003	0.090
2,3,7,8-TCDF	1/23/13	1	0.29 B J	1.1	0.052	0.1	0.029
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.6	0.054	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	0.23 J	5.6	0.051	0.3	0.069
1,2,3,4,7,8-HxCDF	1/23/13	1	0.34 Q J	5.6	0.036	0.1	0.034
1,2,3,6,7,8-HxCDF	1/23/13	1	1.3 Q B J	5.6	0.037	0.1	0.13
2,3,4,6,7,8-HxCDF	1/23/13	1	0.36 B J	5.6	0.041	0.1	0.036
1,2,3,7,8,9-HxCDF	1/23/13	1	0.32 Q B J	5.6	0.051	0.1	0.032
1,2,3,4,6,7,8-HpCDF	1/23/13	1	4.1 B J	5.6	0.040	0.01	0.041
1,2,3,4,7,8,9-HpCDF	1/23/13	1	0.46 Q B J	5.6	0.061	0.01	0.0046
OCDF	1/23/13	1	11 B J	11	0.017	0.0003	0.0033
Total TEQ Concentration							1.3

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	91	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	84	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	85	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	99	(23 - 140)
13C-OCDD	163 *	(17 - 157)
13C-2,3,7,8-TCDF	84	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	89	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	93	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	93	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-622-SA6-SB-0.0-0.5MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-1022-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 025	Work Order #....:	MXQC01AC	Matrix.....:	SO
Date Sampled....:	12/19/12	Date Received....:	12/27/12	Units....:	ng/kg
Prep Date....:	01/10/13			Dilution Factor:	1
Prep Batch # ....:	3010024			Percent Moisture:	13
Initial Wgt/Vol :	10 g	Instrument ID....:	D11A	Method....:	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.1	0.043	1.0	0
1,2,3,7,8-PeCDD	1/23/13	1	0.34 Q J	5.7	0.060	1.0	0.34
1,2,3,4,7,8-HxCDD	1/23/13	1	0.60 J	5.7	0.076	0.1	0.060
1,2,3,6,7,8-HxCDD	1/23/13	1	1.3 J	5.7	0.080	0.1	0.13
1,2,3,7,8,9-HxCDD	1/23/13	1	1.5 J	5.7	0.073	0.1	0.15
1,2,3,4,6,7,8-HpCDD	1/23/13	1	34	5.7	0.12	0.01	0.34
OCDD	1/23/13	1	420 B	11	0.056	0.0003	0.13
2,3,7,8-TCDF	1/23/13	1	0.78 B J	1.1	0.094	0.1	0.078
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.7	0.096	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	0.35 J	5.7	0.087	0.3	0.10
1,2,3,4,7,8-HxCDF	1/23/13	1	0.56 Q J	5.7	0.049	0.1	0.056
1,2,3,6,7,8-HxCDF	1/23/13	1	2.2 Q B J	5.7	0.051	0.1	0.22
2,3,4,6,7,8-HxCDF	1/23/13	1	0.49 Q B J	5.7	0.054	0.1	0.049
1,2,3,7,8,9-HxCDF	1/23/13	1	0.26 Q B J	5.7	0.068	0.1	0.026
1,2,3,4,6,7,8-HpCDF	1/23/13	1	6.3 B	5.7	0.052	0.01	0.063
1,2,3,4,7,8,9-HpCDF	1/23/13	1	0.55 Q B J	5.7	0.078	0.01	0.0055
OCDF	1/23/13	1	17 B	11	0.027	0.0003	0.0051
Total TEQ Concentration							1.8

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	89	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	86	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	90	(23 - 140)
13C-OCDD	154	(17 - 157)
13C-2,3,7,8-TCDF	80	(24 - 169)
13C-1,2,3,7,8-PeCDF	83	(24 - 185)
13C-2,3,4,7,8-PeCDF	87	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	90	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	86	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	88	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	87	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	94	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-1022-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-622-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 026	**Work Order #....:**	MXQC11AC	**Matrix.....:**	SO
Date Sampled....:	12/19/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	3.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/23/13**	**1**	**0.016 Q J**	**1.0**	**0.019**	**1.0**	**0.016**
1,2,3,7,8-PeCDD	1/23/13	1	ND	5.2	0.029	1.0	0
1,2,3,4,7,8-HxCDD	1/23/13	1	ND	5.2	0.025	0.1	0
1,2,3,6,7,8-HxCDD	1/23/13	1	ND	5.2	0.026	0.1	0
1,2,3,7,8,9-HxCDD	1/23/13	1	ND	5.2	0.024	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**0.22 J**	**5.2**	**0.039**	**0.01**	**0.0022**
OCDD	**1/23/13**	**1**	**5.8 B J**	**10**	**0.026**	**0.0003**	**0.0017**
2,3,7,8-TCDF	1/23/13	1	ND	1.0	0.016	0.1	0
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.2	0.017	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	ND	5.2	0.017	0.3	0
1,2,3,4,7,8-HxCDF	1/23/13	1	ND	5.2	0.022	0.1	0
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.055 Q B J**	**5.2**	**0.023**	**0.1**	**0.0055**
2,3,4,6,7,8-HxCDF	1/23/13	1	ND	5.2	0.024	0.1	0
1,2,3,7,8,9-HxCDF	1/23/13	1	ND	5.2	0.029	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**0.062 Q B J**	**5.2**	**0.035**	**0.01**	**0.00062**
1,2,3,4,7,8,9-HpCDF	1/23/13	1	ND	5.2	0.047	0.01	0
OCDF	**1/23/13**	**1**	**0.23 Q B J**	**10**	**0.020**	**0.0003**	**0.000069**
Total TEQ Concentration							**0.026**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	121	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
13C-2,3,4,7,8-PeCDF	85	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	85	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	81	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	79	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	83	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	85	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-622-SA6-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-624-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 027	**Work Order #....:**	MXQC21AC	**Matrix.....:**	SO
Date Sampled....:	12/19/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	12
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	**1/23/13**	**1**	**0.062 Q J**	**1.1**	**0.054**	**1.0**	**0.062**
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**1.4 J**	**5.7**	**0.078**	**1.0**	**1.4**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**3.8 J**	**5.7**	**0.061**	**0.1**	**0.38**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**9.1**	**5.7**	**0.063**	**0.1**	**0.91**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**8.9**	**5.7**	**0.058**	**0.1**	**0.89**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**520**	**5.7**	**0.29**	**0.01**	**5.2**
OCDD	**1/23/13**	**1**	**8600 B E**	**11**	**0.090**	**0.0003**	**2.6**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.062 Q B J**	**1.1**	**0.078**	**0.1**	**0.0062**
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.7	0.10	0.03	0
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**0.33 Q J**	**5.7**	**0.11**	**0.3**	**0.099**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**4.4 J**	**5.7**	**0.086**	**0.1**	**0.44**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**66 Q B**	**5.7**	**0.087**	**0.1**	**6.6**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**3.1 B J**	**5.7**	**0.092**	**0.1**	**0.31**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.54 Q B J**	**5.7**	**0.12**	**0.1**	**0.054**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**110 B**	**5.7**	**0.11**	**0.01**	**1.1**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**12 B**	**5.7**	**0.16**	**0.01**	**0.12**
OCDF	**1/23/13**	**1**	**370 B**	**11**	**0.047**	**0.0003**	**0.11**
Total TEQ Concentration							**20**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	95	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	81	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	203 *	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	93	(24 - 185)
13C-2,3,4,7,8-PeCDF	89	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	81	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	78	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	84	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	84	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	92	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-624-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Bimbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

*	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-624-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 028	**Work Order #....:**	MXQC31AC	**Matrix.....:**	SO
Date Sampled....:	12/19/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	8.4
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.1	0.018	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**0.13 Q J**	**5.4**	**0.022**	**1.0**	**0.13**
1,2,3,4,7,8-HxCDD	1/23/13	1	ND	5.4	0.051	0.1	0
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**0.23 J**	**5.4**	**0.052**	**0.1**	**0.023**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**0.23 Q J**	**5.4**	**0.048**	**0.1**	**0.023**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**13**	**5.4**	**0.069**	**0.01**	**0.13**
OCDD	**1/23/13**	**1**	**250 B**	**11**	**0.073**	**0.0003**	**0.075**
2,3,7,8-TCDF	1/23/13	1	ND	1.1	0.023	0.1	0
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.4	0.039	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	ND	5.4	0.038	0.3	0
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.16 Q J**	**5.4**	**0.039**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.89 Q B J**	**5.4**	**0.038**	**0.1**	**0.089**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.15 Q B J**	**5.4**	**0.042**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	1/23/13	1	ND	5.4	0.051	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**2.8 B J**	**5.4**	**0.062**	**0.01**	**0.028**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**0.37 B J**	**5.4**	**0.080**	**0.01**	**0.0037**
OCDF	**1/23/13**	**1**	**17 B**	**11**	**0.028**	**0.0003**	**0.0051**
Total TEQ Concentration							**0.54**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 164)
13C-1,2,3,7,8-PeCDD	90	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	87	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	93	(23 - 140)
13C-OCDD	121	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	88	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	79	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	81	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	86	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-624-SA6-SB-4.0-5.0

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-623-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 029	**Work Order #....:**	MXQC41AC	**Matrix.....:**	SO
Date Sampled....:	12/19/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	7.8
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.1	0.020	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**0.12 Q J**	**5.4**	**0.038**	**1.0**	**0.12**
1,2,3,4,7,8-HxCDD	1/23/13	1	ND	5.4	0.046	0.1	0
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**0.24 Q J**	**5.4**	**0.047**	**0.1**	**0.024**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**0.37 J**	**5.4**	**0.043**	**0.1**	**0.037**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**6.4**	**5.4**	**0.058**	**0.01**	**0.064**
OCDD	**1/23/13**	**1**	**89 B**	**11**	**0.036**	**0.0003**	**0.027**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.11 Q B J**	**1.1**	**0.045**	**0.1**	**0.011**
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.4	0.050	0.03	0
2,3,4,7,8-PeCDF	1/23/13	1	ND	5.4	0.050	0.3	0
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.16 Q J**	**5.4**	**0.033**	**0.1**	**0.016**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.30 Q B J**	**5.4**	**0.034**	**0.1**	**0.030**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.15 Q B J**	**5.4**	**0.035**	**0.1**	**0.015**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.13 Q B J**	**5.4**	**0.044**	**0.1**	**0.013**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**1.2 Q B J**	**5.4**	**0.041**	**0.01**	**0.012**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**0.12 Q B J**	**5.4**	**0.059**	**0.01**	**0.0012**
OCDF	**1/23/13**	**1**	**2.4 B J**	**11**	**0.036**	**0.0003**	**0.00072**
Total TEQ Concentration							**0.37**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	86	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	85	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	98	(23 - 140)
13C-OCDD	149	(17 - 157)
13C-2,3,7,8-TCDF	82	(24 - 169)
13C-1,2,3,7,8-PeCDF	86	(24 - 185)
13C-2,3,4,7,8-PeCDF	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	87	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	87	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	87	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-623-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-625-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 030	**Work Order #....:**	MXQC51AC	**Matrix.....:**	SO
Date Sampled....:	12/19/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/10/13			**Dilution Factor:**	1
Prep Batch # ....:	3010024			**Percent Moisture:**	10
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D11A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/23/13	1	ND	1.1	0.036	1.0	0
1,2,3,7,8-PeCDD	**1/23/13**	**1**	**0.27 J**	**5.5**	**0.053**	**1.0**	**0.27**
1,2,3,4,7,8-HxCDD	**1/23/13**	**1**	**0.18 Q J**	**5.5**	**0.056**	**0.1**	**0.018**
1,2,3,6,7,8-HxCDD	**1/23/13**	**1**	**0.58 Q J**	**5.5**	**0.059**	**0.1**	**0.058**
1,2,3,7,8,9-HxCDD	**1/23/13**	**1**	**0.71 Q J**	**5.5**	**0.054**	**0.1**	**0.071**
1,2,3,4,6,7,8-HpCDD	**1/23/13**	**1**	**11**	**5.5**	**0.091**	**0.01**	**0.11**
OCDD	**1/23/13**	**1**	**150 B**	**11**	**0.035**	**0.0003**	**0.045**
2,3,7,8-TCDF	**1/23/13**	**1**	**0.22 Q B J**	**1.1**	**0.058**	**0.1**	**0.022**
1,2,3,7,8-PeCDF	1/23/13	1	ND	5.5	0.050	0.03	0
2,3,4,7,8-PeCDF	**1/23/13**	**1**	**0.15 Q J**	**5.5**	**0.049**	**0.3**	**0.045**
1,2,3,4,7,8-HxCDF	**1/23/13**	**1**	**0.37 Q J**	**5.5**	**0.045**	**0.1**	**0.037**
1,2,3,6,7,8-HxCDF	**1/23/13**	**1**	**0.61 Q B J**	**5.5**	**0.041**	**0.1**	**0.061**
2,3,4,6,7,8-HxCDF	**1/23/13**	**1**	**0.24 B J**	**5.5**	**0.045**	**0.1**	**0.024**
1,2,3,7,8,9-HxCDF	**1/23/13**	**1**	**0.21 Q B J**	**5.5**	**0.056**	**0.1**	**0.021**
1,2,3,4,6,7,8-HpCDF	**1/23/13**	**1**	**2.7 B J**	**5.5**	**0.044**	**0.01**	**0.027**
1,2,3,4,7,8,9-HpCDF	**1/23/13**	**1**	**0.28 B J**	**5.5**	**0.060**	**0.01**	**0.0028**
OCDF	**1/23/13**	**1**	**5.2 B J**	**11**	**0.018**	**0.0003**	**0.0016**
Total TEQ Concentration							**0.81**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	91	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	88	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	84	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	98	(23 - 140)
13C-OCDD	157	(17 - 157)
13C-2,3,7,8-TCDF	81	(24 - 169)
13C-1,2,3,7,8-PeCDF	87	(24 - 185)
13C-2,3,4,7,8-PeCDF	84	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	84	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	83	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	84	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	80	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	85	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	89	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-625-SA6-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB1-121912

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 031	**Work Order #....:**	MXQC61AA	**Matrix.....:**	WQ
Date Sampled....:	12/19/12	**Date Received....:**	12/20/12	**Units....:**	pg/L
Prep Date....:	01/03/13			**Dilution Factor:**	1
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	955 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/10/13	1	ND	10	1.4	1.0	0
1,2,3,7,8-PeCDD	1/10/13	1	ND	52	0.99	1.0	0
1,2,3,4,7,8-HxCDD	1/10/13	1	ND	52	0.60	0.1	0
1,2,3,6,7,8-HxCDD	1/10/13	1	ND	52	0.57	0.1	0
1,2,3,7,8,9-HxCDD	**1/10/13**	**1**	**0.43 Q B J**	**52**	**0.55**	**0.1**	**0.043**
1,2,3,4,6,7,8-HpCDD	1/10/13	1	ND	52	0.63	0.01	0
OCDD	**1/10/13**	**1**	**1.9 Q B J**	**100**	**0.75**	**0.0003**	**0.00057**
2,3,7,8-TCDF	1/10/13	1	ND	10	0.86	0.1	0
1,2,3,7,8-PeCDF	1/10/13	1	ND	52	0.69	0.03	0
2,3,4,7,8-PeCDF	1/10/13	1	ND	52	0.65	0.3	0
1,2,3,4,7,8-HxCDF	1/10/13	1	ND	52	0.31	0.1	0
1,2,3,6,7,8-HxCDF	1/10/13	1	ND	52	0.33	0.1	0
2,3,4,6,7,8-HxCDF	1/10/13	1	ND	52	0.32	0.1	0
1,2,3,7,8,9-HxCDF	1/10/13	1	ND	52	0.42	0.1	0
1,2,3,4,6,7,8-HpCDF	1/10/13	1	ND	52	0.45	0.01	0
1,2,3,4,7,8,9-HpCDF	1/10/13	1	ND	52	0.65	0.01	0
OCDF	1/10/13	1	ND	100	0.75	0.0003	0
Total TEQ Concentration							**0.044**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(25 - 164)
13C-1,2,3,7,8-PeCDD	102	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	91	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	89	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	95	(23 - 140)
13C-OCDD	94	(17 - 157)
13C-2,3,7,8-TCDF	85	(24 - 169)
13C-1,2,3,7,8-PeCDF	107	(24 - 185)
13C-2,3,4,7,8-PeCDF	94	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	93	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	83	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	85	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	87	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	91	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	96	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB1-121912

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	103	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: EB2-121912

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270408 - 032	**Work Order #....:**	MXQC71AA	**Matrix.....:**	WQ
Date Sampled....:	12/19/12	**Date Received....:**	12/20/12	**Units....:**	pg/L
Prep Date....:	01/03/13			**Dilution Factor:**	1
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	896 mL	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/10/13	1	ND	11	0.74	1.0	0
1,2,3,7,8-PeCDD	1/10/13	1	ND	56	0.51	1.0	0
1,2,3,4,7,8-HxCDD	1/10/13	1	ND	56	0.29	0.1	0
1,2,3,6,7,8-HxCDD	1/10/13	1	ND	56	0.28	0.1	0
1,2,3,7,8,9-HxCDD	1/10/13	1	ND	56	0.27	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/10/13**	**1**	**0.67 B J**	**56**	**0.29**	**0.01**	**0.0067**
OCDD	**1/10/13**	**1**	**1.8 B J**	**110**	**0.40**	**0.0003**	**0.00054**
2,3,7,8-TCDF	1/10/13	1	ND	11	0.43	0.1	0
1,2,3,7,8-PeCDF	1/10/13	1	ND	56	0.37	0.03	0
2,3,4,7,8-PeCDF	1/10/13	1	ND	56	0.36	0.3	0
1,2,3,4,7,8-HxCDF	1/10/13	1	ND	56	0.18	0.1	0
1,2,3,6,7,8-HxCDF	1/10/13	1	ND	56	0.20	0.1	0
2,3,4,6,7,8-HxCDF	1/10/13	1	ND	56	0.19	0.1	0
1,2,3,7,8,9-HxCDF	1/10/13	1	ND	56	0.26	0.1	0
1,2,3,4,6,7,8-HpCDF	1/10/13	1	ND	56	0.28	0.01	0
1,2,3,4,7,8,9-HpCDF	1/10/13	1	ND	56	0.37	0.01	0
OCDF	**1/10/13**	**1**	**0.70 Q B J**	**110**	**0.42**	**0.0003**	**0.00021**
Total TEQ Concentration							**0.0074**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	92	(25 - 164)
13C-1,2,3,7,8-PeCDD	103	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	98	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	89	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	101	(23 - 140)
13C-OCDD	100	(17 - 157)
13C-2,3,7,8-TCDF	88	(24 - 169)
13C-1,2,3,7,8-PeCDF	110	(24 - 185)
13C-2,3,4,7,8-PeCDF	93	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	94	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	82	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	87	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	89	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	90	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	100	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: EB2-121912

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	108	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.5	pg/L
1,2,3,7,8-PeCDD	**1.7**	**J**	**50**	**1.2**	**pg/L**
1,2,3,4,7,8-HxCDD	**2.7**	**Q J**	**50**	**1.0**	**pg/L**
1,2,3,6,7,8-HxCDD	**4.2**	**J**	**50**	**0.99**	**pg/L**
1,2,3,7,8,9-HxCDD	**3.5**	**Q J**	**50**	**0.95**	**pg/L**
1,2,3,4,6,7,8-HpCDD	**5.5**	**Q J**	**50**	**0.78**	**pg/L**
OCDD	**19**	**Q J**	**100**	**1.4**	**pg/L**
2,3,7,8-TCDF	ND		10	1.6	pg/L
1,2,3,7,8-PeCDF	**1.6**	**Q J**	**50**	**0.89**	**pg/L**
2,3,4,7,8-PeCDF	**1.9**	**Q J**	**50**	**0.85**	**pg/L**
1,2,3,4,7,8-HxCDF	**4.3**	**J**	**50**	**0.64**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		50	0.59	pg/L
2,3,4,6,7,8-HxCDF	**2.5**	**Q J**	**50**	**0.61**	**pg/L**
1,2,3,7,8,9-HxCDF	**2.5**	**Q J**	**50**	**0.69**	**pg/L**
1,2,3,4,6,7,8-HpCDF	**5.9**	**J**	**50**	**0.79**	**pg/L**
1,2,3,4,7,8,9-HpCDF	**6.8**	**Q J**	**50**	**1.1**	**pg/L**
OCDF	**14**	**J**	**100**	**1.1**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	25 - 164
13C-1,2,3,7,8-PeCDD	84	25 - 181
13C-1,2,3,4,7,8-HxCDD	79	32 - 141
13C-1,2,3,6,7,8-HxCDD	67	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	74	23 - 140
13C-OCDD	67	17 - 157
13C-2,3,7,8-TCDF	73	24 - 169
13C-1,2,3,7,8-PeCDF	85	24 - 185
13C-2,3,4,7,8-PeCDF	79	21 - 178
13C-1,2,3,4,7,8-HxCDF	75	26 - 152
13C-1,2,3,6,7,8-HxCDF	65	26 - 123
13C-2,3,4,6,7,8-HxCDF	73	28 - 136
13C-1,2,3,7,8,9-HxCDF	80	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	70	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	72	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A030000 - 018B	**Work Order #....:**	MXRA91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	01/03/13	**Analysis Date....:**	01/14/13		
Prep Batch # ....:	3003018				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXRA91AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H3A030000 - 018				
Prep Date .....:	01/03/13	**Analysis Date ..:**	01/14/13		
Prep Batch # ...:	3003018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**211**	**pg/L**	**106**		**(67 - 158)**
1,2,3,7,8-PeCDD	**1000**	**1010**	**pg/L**	**101**	**B**	**(70 - 142)**
1,2,3,4,7,8-HxCDD	**1000**	**972**	**pg/L**	**97**	**B**	**(70 - 164)**
1,2,3,6,7,8-HxCDD	**1000**	**914**	**pg/L**	**91**	**B**	**(76 - 134)**
1,2,3,7,8,9-HxCDD	**1000**	**1000**	**pg/L**	**100**	**B**	**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**1000**	**927**	**pg/L**	**93**	**B**	**(70 - 140)**
OCDD	**2000**	**1820**	**pg/L**	**91**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**200**	**191**	**pg/L**	**95**		**(75 - 158)**
1,2,3,7,8-PeCDF	**1000**	**963**	**pg/L**	**96**	**B**	**(80 - 134)**
2,3,4,7,8-PeCDF	**1000**	**980**	**pg/L**	**98**	**B**	**(68 - 160)**
1,2,3,4,7,8-HxCDF	**1000**	**971**	**pg/L**	**97**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**1000**	**969**	**pg/L**	**97**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**1000**	**961**	**pg/L**	**96**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**1000**	**936**	**pg/L**	**94**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**1000**	**933**	**pg/L**	**93**	**B**	**(78 - 138)**
OCDF	**2000**	**1770**	**pg/L**	**89**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(20 - 175)
13C-1,2,3,7,8-PeCDD	103	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	86	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	76	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	91	(26 - 166)
13C-OCDD	98	(13 - 199)
13C-2,3,7,8-TCDF	88	(22 - 152)
13C-1,2,3,7,8-PeCDF	99	(21 - 192)
13C-2,3,4,7,8-PeCDF	99	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	87	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	75	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	84	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	94	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	84	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	92	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	101	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 022		MXQCV1AE-MSD		
Prep Date .....:	01/04/13	**Analysis Date ..:**	01/24/13		
Prep Batch # ...:	3004018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	ND	21.6	24.2	ng/kg	112	(67 - 158)		
	ND	21.6	23.3	ng/kg	108	(67 - 158)	3.7	(0 - 25)
1,2,3,7,8-PeCDD	ND	108	116	ng/kg	107	(70 - 142)		
	ND	108	117	ng/kg	108	(70 - 142)	0.97	(0 - 25)
1,2,3,4,7,8-HxCDD	ND	108	113	ng/kg	105	(70 - 164)		
	ND	108	116	ng/kg	107	(70 - 164)	2.6	(0 - 25)
1,2,3,6,7,8-HxCDD	0.44	108	109	ng/kg	101	(76 - 134)		
	0.44	108	110	ng/kg	102	(76 - 134)	0.99	(0 - 25)
1,2,3,7,8,9-HxCDD	0.17	108	116	ng/kg	107	(64 - 162)		
	0.17	108	117	ng/kg	108	(64 - 162)	1.3	(0 - 25)
1,2,3,4,6,7,8-HpCDD	16	108	125	ng/kg	100 B	(70 - 140)		
	16	108	128	ng/kg	103 B	(70 - 140)	2.5	(0 - 25)
OCDD	180	216	403	ng/kg	102 B	(78 - 144)		
	180	216	393	ng/kg	98 B	(78 - 144)	2.6	(0 - 25)
2,3,7,8-TCDF	ND	21.6	22.2	ng/kg	103 X	(75 - 158)		
	ND	21.6	22.5	ng/kg	104 X	(75 - 158)	1.4	(0 - 25)
1,2,3,7,8-PeCDF	ND	108	110	ng/kg	102	(80 - 134)		
	ND	108	108	ng/kg	100	(80 - 134)	1.8	(0 - 25)
2,3,4,7,8-PeCDF	ND	108	112	ng/kg	104	(68 - 160)		
	ND	108	115	ng/kg	106	(68 - 160)	2.2	(0 - 25)
1,2,3,4,7,8-HxCDF	0.14	108	113	ng/kg	105	(72 - 134)		
	0.14	108	114	ng/kg	105	(72 - 134)	0.48	(0 - 25)
1,2,3,6,7,8-HxCDF	ND	108	113	ng/kg	105	(84 - 130)		
	ND	108	115	ng/kg	107	(84 - 130)	1.8	(0 - 25)
2,3,4,6,7,8-HxCDF	ND	108	113	ng/kg	105	(70 - 156)		
	ND	108	115	ng/kg	106	(70 - 156)	1.5	(0 - 25)
1,2,3,7,8,9-HxCDF	ND	108	118	ng/kg	109	(78 - 130)		
	ND	108	117	ng/kg	108	(78 - 130)	0.77	(0 - 25)
1,2,3,4,6,7,8-HpCDF	2.4	108	115	ng/kg	104	(82 - 122)		
	2.4	108	114	ng/kg	104	(82 - 122)	0.72	(0 - 25)
1,2,3,4,7,8,9-HpCDF	ND	108	114	ng/kg	105 B	(78 - 138)		
	ND	108	113	ng/kg	105 B	(78 - 138)	0.79	(0 - 25)
OCDF	6.2	216	215	ng/kg	97 B	(63 - 170)		
	6.2	216	213	ng/kg	96 B	(63 - 170)	0.75	(0 - 25)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 022		MXQCV1AE-MSD		
Prep Date .....:	01/04/13	**Analysis Date ..:**	01/24/13		
Prep Batch # ...:	3004018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
	75	(25 - 164)
13C-1,2,3,7,8-PeCDD	92	(25 - 181)
	88	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	83	(32 - 141)
	79	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	70	(28 - 130)
	65	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	76	(23 - 140)
	73	(23 - 140)
13C-OCDD	72	(17 - 157)
	73	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	91	(24 - 185)
	89	(24 - 185)
13C-2,3,4,7,8-PeCDF	86	(21 - 178)
	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
	76	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	70	(26 - 123)
	64	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	75	(28 - 136)
	75	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	72	(28 - 143)
	67	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	74	(26 - 138)
	71	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	(35 - 197)
	82	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCV1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 022		MXQCV1AE-MSD		
Prep Date .....:	01/04/13	**Analysis Date ..:**	01/24/13		
Prep Batch # ...:	3004018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.2 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

X See project narrative.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A040000 - 018B	**Work Order #....:**	MXRLC1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/04/13	**Analysis Date....:**	01/23/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3004018				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.15	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.095	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.072	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.083	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.072	ng/kg
1,2,3,4,6,7,8-HpCDD	**0.13**	**J**	**5.0**	**0.082**	**ng/kg**
OCDD	**0.61**	**Q J**	**10**	**0.10**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.11	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.075	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.069	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.046	ng/kg
1,2,3,6,7,8-HxCDF	ND		5.0	0.049	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.049	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.055	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.063	ng/kg
1,2,3,4,7,8,9-HpCDF	**0.13**	**Q J**	**5.0**	**0.082**	**ng/kg**
OCDF	**0.27**	**Q J**	**10**	**0.090**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	25 - 164
13C-1,2,3,7,8-PeCDD	86	25 - 181
13C-1,2,3,4,7,8-HxCDD	81	32 - 141
13C-1,2,3,6,7,8-HxCDD	64	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	74	23 - 140
13C-OCDD	71	17 - 157
13C-2,3,7,8-TCDF	74	24 - 169
13C-1,2,3,7,8-PeCDF	87	24 - 185
13C-2,3,4,7,8-PeCDF	81	21 - 178
13C-1,2,3,4,7,8-HxCDF	78	26 - 152
13C-1,2,3,6,7,8-HxCDF	65	26 - 123
13C-2,3,4,6,7,8-HxCDF	70	28 - 136
13C-1,2,3,7,8,9-HxCDF	78	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	67	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	74	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A040000 - 018B	**Work Order #....:**	MXRLC1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/04/13	**Analysis Date....:**	01/23/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3004018				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXRLC1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H3A040000 - 018				
Prep Date .....:	01/04/13	**Analysis Date ..:**	01/23/13		
Prep Batch # ...:	3004018				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.3**	**ng/kg**	**112**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**103**	**ng/kg**	**103**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**97.6**	**ng/kg**	**98**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**106**	**ng/kg**	**106**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**100**	**ng/kg**	**100**	**B**	**(70 - 140)**
OCDD	**200**	**197**	**ng/kg**	**99**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.9**	**ng/kg**	**99**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**99.5**	**ng/kg**	**100**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**104**	**ng/kg**	**104**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**103**	**ng/kg**	**103**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**105**	**ng/kg**	**105**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**108**	**ng/kg**	**108**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**102**	**ng/kg**	**102**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(78 - 138)**
OCDF	**200**	**176**	**ng/kg**	**88**	**B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(20 - 175)
13C-1,2,3,7,8-PeCDD	89	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	84	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	71	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	79	(26 - 166)
13C-OCDD	79	(13 - 199)
13C-2,3,7,8-TCDF	75	(22 - 152)
13C-1,2,3,7,8-PeCDF	89	(21 - 192)
13C-2,3,4,7,8-PeCDF	82	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	83	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	69	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	75	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	81	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	75	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	79	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A100000 - 024B	**Work Order #....:**	MXT5V1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/10/13	**Analysis Date....:**	01/17/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3010024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.055	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.029	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.041	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.041	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.038	ng/kg
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.054	ng/kg
OCDD	**0.87**	**Q J**	**10**	**0.046**	**ng/kg**
2,3,7,8-TCDF	**0.19**	**Q J**	**1.0**	**0.045**	**ng/kg**
1,2,3,7,8-PeCDF	ND		5.0	0.032	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.031	ng/kg
1,2,3,4,7,8-HxCDF	ND		5.0	0.033	ng/kg
1,2,3,6,7,8-HxCDF	**0.060**	**Q J**	**5.0**	**0.033**	**ng/kg**
2,3,4,6,7,8-HxCDF	**0.044**	**Q J**	**5.0**	**0.034**	**ng/kg**
1,2,3,7,8,9-HxCDF	**0.062**	**Q J**	**5.0**	**0.046**	**ng/kg**
1,2,3,4,6,7,8-HpCDF	**0.083**	**Q J**	**5.0**	**0.020**	**ng/kg**
1,2,3,4,7,8,9-HpCDF	**0.077**	**Q J**	**5.0**	**0.032**	**ng/kg**
OCDF	**0.11**	**Q J**	**10**	**0.027**	**ng/kg**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	51	25 - 164
13C-1,2,3,7,8-PeCDD	65	25 - 181
13C-1,2,3,4,7,8-HxCDD	58	32 - 141
13C-1,2,3,6,7,8-HxCDD	59	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	53	23 - 140
13C-OCDD	43	17 - 157
13C-2,3,7,8-TCDF	49	24 - 169
13C-1,2,3,7,8-PeCDF	62	24 - 185
13C-2,3,4,7,8-PeCDF	60	21 - 178
13C-1,2,3,4,7,8-HxCDF	56	26 - 152
13C-1,2,3,6,7,8-HxCDF	55	26 - 123
13C-2,3,4,6,7,8-HxCDF	57	28 - 136
13C-1,2,3,7,8,9-HxCDF	52	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	50	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	44	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A100000 - 024B	**Work Order #....:**	MXT5V1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/10/13	**Analysis Date....:**	01/17/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3010024				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D11A	**Method:**	EPA-5 1613B
Analyst ID....:	Kenneya L. Wilson				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	59	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXT5V1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H3A100000 - 024				
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/17/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.0**	**ng/kg**	**105**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**106**	**ng/kg**	**106**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**102**	**ng/kg**	**102**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**108**	**ng/kg**	**108**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 140)**
OCDD	**200**	**210**	**ng/kg**	**105**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**19.9**	**ng/kg**	**100**	**B**	**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**104**	**ng/kg**	**104**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**108**	**ng/kg**	**108**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**98.7**	**ng/kg**	**99**		**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**97.1**	**ng/kg**	**97**	**B**	**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**98.6**	**ng/kg**	**99**	**B**	**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**97.6**	**ng/kg**	**98**	**B**	**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**99.1**	**ng/kg**	**99**	**B**	**(78 - 138)**
OCDF	**200**	**113**	**ng/kg**	**56**	**a B**	**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	46	(20 - 175)
13C-1,2,3,7,8-PeCDD	56	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	50	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	52	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	48	(26 - 166)
13C-OCDD	41	(13 - 199)
13C-2,3,7,8-TCDF	46	(22 - 152)
13C-1,2,3,7,8-PeCDF	54	(21 - 192)
13C-2,3,4,7,8-PeCDF	51	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	49	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	49	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	49	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	44	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	46	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	39	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	57	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCX1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 024		MXQCX1AE-MSD		
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/23/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.1 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**0.041**	**22.4**	**22.3**	**ng/kg**	**99**	**(67 - 158)**		
	0.041	**22.4**	**24.6**	**ng/kg**	**110**	**(67 - 158)**	**9.8**	**(0 - 25)**
1,2,3,7,8-PeCDD	**0.31**	**112**	**115**	**ng/kg**	**102**	**(70 - 142)**		
	0.31	**112**	**121**	**ng/kg**	**108**	**(70 - 142)**	**5.2**	**(0 - 25)**
1,2,3,4,7,8-HxCDD	**0.38**	**112**	**116**	**ng/kg**	**103**	**(70 - 164)**		
	0.38	**112**	**120**	**ng/kg**	**107**	**(70 - 164)**	**3.8**	**(0 - 25)**
1,2,3,6,7,8-HxCDD	**0.94**	**112**	**110**	**ng/kg**	**97**	**(76 - 134)**		
	0.94	**112**	**117**	**ng/kg**	**104**	**(76 - 134)**	**6.5**	**(0 - 25)**
1,2,3,7,8,9-HxCDD	**1.1**	**112**	**112**	**ng/kg**	**99**	**(64 - 162)**		
	1.1	**112**	**125**	**ng/kg**	**111**	**(64 - 162)**	**11**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDD	**21**	**112**	**137**	**ng/kg**	**103**	**(70 - 140)**		
	21	**112**	**140**	**ng/kg**	**106**	**(70 - 140)**	**2.3**	**(0 - 25)**
OCDD	**300**	**224**	**534**	**ng/kg**	**104 B**	**(78 - 144)**		
	300	**224**	**511**	**ng/kg**	**94 B**	**(78 - 144)**	**4.4**	**(0 - 25)**
2,3,7,8-TCDF	**0.29**	**22.4**	**21.4**	**ng/kg**	**94 X B**	**(75 - 158)**		
	0.29	**22.4**	**25.5**	**ng/kg**	**112 X B**	**(75 - 158)**	**18**	**(0 - 25)**
1,2,3,7,8-PeCDF	**ND**	**112**	**110**	**ng/kg**	**98**	**(80 - 134)**		
	ND	**112**	**117**	**ng/kg**	**105**	**(80 - 134)**	**6.4**	**(0 - 25)**
2,3,4,7,8-PeCDF	**0.23**	**112**	**113**	**ng/kg**	**101**	**(68 - 160)**		
	0.23	**112**	**121**	**ng/kg**	**108**	**(68 - 160)**	**6.2**	**(0 - 25)**
1,2,3,4,7,8-HxCDF	**0.34**	**112**	**106**	**ng/kg**	**95**	**(72 - 134)**		
	0.34	**112**	**113**	**ng/kg**	**100**	**(72 - 134)**	**5.9**	**(0 - 25)**
1,2,3,6,7,8-HxCDF	**1.3**	**112**	**114**	**ng/kg**	**101 B**	**(84 - 130)**		
	1.3	**112**	**115**	**ng/kg**	**102 Q B**	**(84 - 130)**	**1.0**	**(0 - 25)**
2,3,4,6,7,8-HxCDF	**0.36**	**112**	**111**	**ng/kg**	**99 B**	**(70 - 156)**		
	0.36	**112**	**115**	**ng/kg**	**103 B**	**(70 - 156)**	**3.8**	**(0 - 25)**
1,2,3,7,8,9-HxCDF	**0.32**	**112**	**114**	**ng/kg**	**101 B**	**(78 - 130)**		
	0.32	**112**	**117**	**ng/kg**	**104 B**	**(78 - 130)**	**2.9**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDF	**4.1**	**112**	**115**	**ng/kg**	**99 B**	**(82 - 122)**		
	4.1	**112**	**120**	**ng/kg**	**103 B**	**(82 - 122)**	**4.4**	**(0 - 25)**
1,2,3,4,7,8,9-HpCDF	**0.46**	**112**	**109**	**ng/kg**	**97 B**	**(78 - 138)**		
	0.46	**112**	**117**	**ng/kg**	**104 B**	**(78 - 138)**	**6.9**	**(0 - 25)**
OCDF	**11**	**224**	**177**	**ng/kg**	**74 B**	**(63 - 170)**		
	11	**224**	**122**	**ng/kg**	**49 a p B**	**(63 - 170)**	**37**	**(0 - 25)**

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCX1AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 024		MXQCX1AE-MSD		
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/23/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.1 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
	73	(25 - 164)
13C-1,2,3,7,8-PeCDD	109	(25 - 181)
	84	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	89	(32 - 141)
	86	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	92	(28 - 130)
	81	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(23 - 140)
	95	(23 - 140)
13C-OCDD	73	(17 - 157)
	164 *	(17 - 157)
13C-2,3,7,8-TCDF	65	(24 - 169)
	76	(24 - 169)
13C-1,2,3,7,8-PeCDF	108	(24 - 185)
	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	99	(21 - 178)
	80	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	79	(26 - 152)
	88	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
	80	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	72	(28 - 136)
	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	73	(29 - 147)
	81	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	70	(28 - 143)
	89	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)
	88	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)
	86	(35 - 197)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXQCX1AD-MS MXQCX1AE-MSD	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270408 - 024				
Prep Date .....:	01/10/13	**Analysis Date ..:**	01/23/13		
Prep Batch # ...:	3010024				
Dilution Factor :	1				
Analyst ID.....:	Kenneya L. Wilson	**Instrument ID..:**	D11A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10.1 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

*	Surrogate recovery is outside stated control limits.
a	Spiked analyte recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
p	Relative percent difference (RPD) is outside stated control limits.
Q	Estimated maximum possible concentration (EMPC).
X	See project narrative.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A210000 - 015B	**Work Order #....:**	MXW5L1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/21/13	**Analysis Date....:**	01/25/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3021015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.15	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.071	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.065	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.066	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.061	ng/kg
1,2,3,4,6,7,8-HpCDD	**0.053**	**Q J**	**5.0**	**0.056**	**ng/kg**
OCDD	**0.84**	**J**	**10**	**0.074**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.090	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.052	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.054	ng/kg
1,2,3,4,7,8-HxCDF	**0.035**	**Q J**	**5.0**	**0.032**	**ng/kg**
1,2,3,6,7,8-HxCDF	ND		5.0	0.032	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.033	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.040	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.044	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.071	ng/kg
OCDF	ND		10	0.084	ng/kg

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	25 - 164
13C-1,2,3,7,8-PeCDD	92	25 - 181
13C-1,2,3,4,7,8-HxCDD	85	32 - 141
13C-1,2,3,6,7,8-HxCDD	66	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	73	23 - 140
13C-OCDD	66	17 - 157
13C-2,3,7,8-TCDF	74	24 - 169
13C-1,2,3,7,8-PeCDF	94	24 - 185
13C-2,3,4,7,8-PeCDF	82	21 - 178
13C-1,2,3,4,7,8-HxCDF	79	26 - 152
13C-1,2,3,6,7,8-HxCDF	67	26 - 123
13C-2,3,4,6,7,8-HxCDF	71	28 - 136
13C-1,2,3,7,8,9-HxCDF	74	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	72	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	69	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A210000 - 015B	**Work Order #....:**	MXW5L1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/21/13	**Analysis Date....:**	01/25/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3021015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270408	**Work Order # ...:**	MXW5L1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H3A210000 - 015				
Prep Date .....:	01/21/13	**Analysis Date ..:**	01/25/13		
Prep Batch # ...:	3021015				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.7**	**ng/kg**	**108**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**104**	**ng/kg**	**104**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**101**	**ng/kg**	**101**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**101**	**ng/kg**	**101**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**	**B**	**(70 - 140)**
OCDD	**200**	**203**	**ng/kg**	**102**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.4**	**ng/kg**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**100**	**ng/kg**	**100**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**104**	**ng/kg**	**104**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**106**	**ng/kg**	**106**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**102**	**ng/kg**	**102**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**102**	**ng/kg**	**102**		**(78 - 138)**
OCDF	**200**	**173**	**ng/kg**	**86**		**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(20 - 175)
13C-1,2,3,7,8-PeCDD	90	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	92	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	74	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	73	(26 - 166)
13C-OCDD	63	(13 - 199)
13C-2,3,7,8-TCDF	72	(22 - 152)
13C-1,2,3,7,8-PeCDF	95	(21 - 192)
13C-2,3,4,7,8-PeCDF	83	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	91	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	76	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	79	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	79	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	77	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	72	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

H2L270408

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348648761

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-05
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-121912	12/19/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							pH 6 Rc/wd
EB2-121912	12/19/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/19/2012	1300	[illegible]	12/20/12	1030						

1 cooler Rec'd @ 1.9°C
with custody seal intact
[illegible] 12/20/12
1 cooler FedEx #
7943 4864 8761

Page 121 of 135

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2427D4D8

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/20/12

QA026R23.doc, 022812

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L270408

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-165390.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 280-37202-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/2/2013			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

REC. @ 1.2 C
CUSTODY SEAL INTACT
1 COOLER
FED EX # 549036936435
RH 12-27-12

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
		Preservation Code:								
SL-685-SA6-SB-6.5-7.5 (280-37202-1)	12/18/12	15:00 Pacific		Solid			X	X	1	TEQs required
SL-575-SA6-SB-2.0-3.0 (280-37202-2)	12/17/12	15:10 Pacific		Solid			X	X	1	, TEQs required
SL-576-SA6-SB-2.0-3.0 (280-37202-3)	12/17/12	15:40 Pacific		Solid			X	X	1	TEQs required
SL-514-SA6-SB-4.0-5.0 (280-37202-4)	12/17/12	10:00 Pacific		Solid			X	X	1	TEQs required
SL-514-SA6-SB-7.0-8.0 (280-37202-5)	12/17/12	10:15 Pacific		Solid			X	X	1	TEQs required
SL-588-SA6-SB-2.0-3.0 (280-37202-6)	12/18/12	12:45 Pacific		Solid			X	X	1	, TEQs required
SL-617-SA6-SB-4.0-5.0 (280-37202-7)	12/18/12	13:20 Pacific		Solid			X	X	1	, TEQs required
SL-590-SA6-SB-4.0-5.0 (280-37202-8)	12/17/12	14:15 Pacific		Solid			X	X	1	TEQs required
SL-592-SA6-SB-2.5-3.5 (280-37202-9)	12/17/12	12:45 Pacific		Solid			X	X	1	TEQs required
SL-591-SA6-SB-4.0-5.0 (280-37202-10)	12/17/12	13:25 Pacific		Solid			X	X	1	TEQs required
SL-575-SA6-SB-0.0-0.5 (280-37202-11)	12/17/12	14:45 Pacific		Solid			X	X	1	, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
J Wheeler	122612 1600	TA	Ryan Henry	12/27/12 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L270408

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-165390.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 280-37202-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/2/2013			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-589-SA6-SB-0.0-0.5 (280-37202-12)	12/18/12	14:15 Pacific		Solid			X	X	1	TEQs required
SL-591-SA6-SB-0.0-0.5 (280-37202-13)	12/17/12	13:10 Pacific		Solid			X	X	1	TEQs required
SL-600-SA6-SB-0.0-0.5 (280-37202-14)	12/18/12	13:45 Pacific		Solid			X	X	1	TEQs required
SL-588-SA6-SB-0.0-0.5 (280-37202-15)	12/18/12	12:35 Pacific		Solid			X	X	1	, TEQs required
SL-592-SA6-SB-0.0-0.5 (280-37202-16)	12/17/12	12:35 Pacific		Solid			X	X	1	, TEQs required
SL-617-SA6-SB-0.0-0.5 (280-37202-17)	12/18/12	13:10 Pacific		Solid			X	X	1	TEQs required
SL-576-SA6-SB-0.0-0.5 (280-37202-18)	12/17/12	15:30 Pacific		Solid			X	X	1	TEQs required
SL-514-SA6-SB-0.0-0.5 (280-37202-19)	12/17/12	09:45 Pacific		Solid			X	X	1	TEQs required
SL-590-SA6-SB-0.0-0.5 (280-37202-20)	12/17/12	14:00 Pacific		Solid			X	X	1	, TEQs required
SL-515-SA6-SB-0.0-0.5 (280-37202-21)	12/17/12	09:00 Pacific		Solid			X	X	1	TEQs required
SL-518-SA6-SB-0.0-0.5MS (280-37202-22)	12/17/12	07:55 Pacific		Solid			X	X	1	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	12/26/12 1600	TA	Ryan Henry	12/27/12 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L270408

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-165390.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 280-37202-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/2/2013			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-518-SA6-SB-0.0-0.5MS (280-37202-22MS)	12/17/12	07:55 Pacific	MS	Solid			X		1	TEQs required
SL-518-SA6-SB-0.0-0.5MS (280-37202-22MSD)	12/17/12	07:55 Pacific	MSD	Solid			X		1	TEQs required
SL-918-SA6-SB-0.0-0.5 (280-37202-23)	12/17/12	08:00 Pacific		Solid			X	X	1	, TEQs required
SL-622-SA6-SB-0.0-0.5MS (280-37202-24)	12/19/12	07:55 Pacific		Solid			X	X	1	, TEQs required
SL-622-SA6-SB-0.0-0.5MS (280-37202-24MS)	12/19/12	07:55 Pacific	MS	Solid			X		1	TEQs required
SL-622-SA6-SB-0.0-0.5MS (280-37202-24MSD)	12/19/12	07:55 Pacific	MSD	Solid			X		1	TEQs required
SL-1022-SA6-SB-0.0-0.5 (280-37202-25)	12/19/12	08:00 Pacific		Solid			X	X	1	, TEQs required
SL-622-SA6-SB-3.5-4.5 (280-37202-26)	12/19/12	08:15 Pacific		Solid			X	X	1	, TEQs required
SL-624-SA6-SB-0.0-0.5 (280-37202-27)	12/19/12	08:50 Pacific		Solid			X	X	1	, TEQs required
SL-624-SA6-SB-4.0-5.0 (280-37202-28)	12/19/12	08:55 Pacific		Solid			X	X	1	, TEQs required
SL-623-SA6-SB-0.0-0.5 (280-37202-29)	12/19/12	09:20 Pacific		Solid			X	X	1	, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12-26-12 1600	Company: TA	Received by: Lynn Henry	Date/Time: 12/27/12 1015	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L2)D4D8

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-165390.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 280-37202-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/2/2013			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-625-SA6-SB-0.0-0.5 (280-37202-30)	12/19/12	09:50 Pacific		Solid			X	X	1	TEQs required
EB1-121912 (280-37202-31)	12/19/12	15:00 Pacific		Water			X		2	TEQs required
EB2-121912 (280-37202-32)	12/19/12	15:30 Pacific		Water			X		2	TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	12/26/12 1400	TA	Ryan Henry	12/27/12 1015	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H2L270418

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 12/27/12

QA026R23.doc, 022812

3.4°C 4.4°C α FP

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348579768

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-02
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-685-SA6-SB-6.5-7.5	12/18/12 15:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-575-SA6-SB-2.0-3.0	12/17/12 15:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-576-SA6-SB-2.0-3.0	12/17/12 15:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-514-SA6-SB-4.0-5.0	12/17/12 10:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-514-SA6-SB-7.0-8.0	12/17/12 10:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-588-SA6-SB-2.0-3.0	12/18/12 12:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-617-SA6-SB-4.0-5.0	12/18/12 13:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-590-SA6-SB-4.0-5.0	12/17/12 14:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-592-SA6-SB-2.5-3.5	12/17/12 12:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-591-SA6-SB-4.0-5.0	12/17/12 13:25	SO	None	1 - 4 oz glass	10 day									X																							
SL-575-SA6-SB-0.0-0.5	12/17/12 14:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-589-SA6-SB-0.0-0.5	12/18/12 14:15	SO	None	1 - SS-Sleeve	10 day									X																							
SL-591-SA6-SB-0.0-0.5	12/17/12 13:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-600-SA6-SB-0.0-0.5	12/18/12 13:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-588-SA6-SB-0.0-0.5	12/18/12 12:35	SO	None	1 - SS-Sleeve	10 day									X																							
SL-592-SA6-SB-0.0-0.5	12/17/12 12:35	SO	None	1 - SS-Sleeve	10 day									X																							
SL-617-SA6-SB-0.0-0.5	12/18/12 13:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-576-SA6-SB-0.0-0.5	12/17/12 15:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-514-SA6-SB-0.0-0.5	12/17/12 09:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-590-SA6-SB-0.0-0.5	12/17/12 14:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-515-SA6-SB-0.0-0.5	12/17/12 09:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-518-SA6-SB-0.0-0.5MS	12/17/12 07:55	SO	None	1 - SS-Sleeve	10 day									X																							MS/MSD
SL-918-SA6-SB-0.0-0.5	12/17/12 08:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-622-SA6-SB-0.0-0.5MS	12/19/12 07:55	SO	None	1 - SS-Sleeve	10 day									X																							MS/MSD
SL-1022-SA6-SB-0.0-0.5	12/19/12 08:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-622-SA6-SB-3.5-4.5	12/19/12 08:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-624-SA6-SB-0.0-0.5	12/19/12 08:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-624-SA6-SB-4.0-5.0	12/19/12 08:55	SO	None	1 - 4 oz glass	10 day									X																							
SL-623-SA6-SB-0.0-0.5	12/19/12 09:20	SO	None	1 - SS-Sleeve	10 day									X																							
SL-625-SA6-SB-0.0-0.5	12/19/12 09:50	SO	None	1 - SS-Sleeve	10 day									X																							

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348579768

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-02
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/19/2012	1300	[illegible]	12/20	1120						

COC Rev 2

COC: 20121219-02, Page 2 of 2

2 of 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348579768

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-02
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-685-SA6-SB-6.5-7.5	12/18/12 15:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-575-SA6-SB-2.0-3.0	12/17/12 15:10	SO	None	1 - 4 oz glass	10 day									X																							
SL-576-SA6-SB-2.0-3.0	12/17/12 15:40	SO	None	1 - 4 oz glass	10 day									X																							
SL-514-SA6-SB-4.0-5.0	12/17/12 10:00	SO	None	1 - 4 oz glass	10 day									X																							
SL-514-SA6-SB-7.0-8.0	12/17/12 10:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-588-SA6-SB-2.0-3.0	12/18/12 12:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-617-SA6-SB-4.0-5.0	12/18/12 13:20	SO	None	1 - 4 oz glass	10 day									X																							
SL-590-SA6-SB-4.0-5.0	12/17/12 14:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-592-SA6-SB-2.5-3.5	12/17/12 12:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-591-SA6-SB-4.0-5.0	12/17/12 13:25	SO	None	1 - 4 oz glass	10 day									X																							
SL-575-SA6-SB-0.0-0.5	12/17/12 14:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-589-SA6-SB-0.0-0.5	12/18/12 14:15	SO	None	1 - SS-Sleeve	10 day									X																							
SL-591-SA6-SB-0.0-0.5	12/17/12 13:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-600-SA6-SB-0.0-0.5	12/18/12 13:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-588-SA6-SB-0.0-0.5	12/18/12 12:35	SO	None	1 - SS-Sleeve	10 day									X																							
SL-592-SA6-SB-0.0-0.5	12/17/12 12:35	SO	None	1 - SS-Sleeve	10 day									X																							
SL-617-SA6-SB-0.0-0.5	12/18/12 13:10	SO	None	1 - SS-Sleeve	10 day									X																							
SL-576-SA6-SB-0.0-0.5	12/17/12 15:30	SO	None	1 - SS-Sleeve	10 day									X																							
SL-514-SA6-SB-0.0-0.5	12/17/12 09:45	SO	None	1 - SS-Sleeve	10 day									X																							
SL-590-SA6-SB-0.0-0.5	12/17/12 14:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-515-SA6-SB-0.0-0.5	12/17/12 09:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-518-SA6-SB-0.0-0.5MS	12/17/12 07:55	SO	None	1 - SS-Sleeve	10 day									X																							MS/MSD
SL-918-SA6-SB-0.0-0.5	12/17/12 08:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-622-SA6-SB-0.0-0.5MS	12/19/12 07:55	SO	None	1 - SS-Sleeve	10 day									X																							MS/MSD
SL-1022-SA6-SB-0.0-0.5	12/19/12 08:00	SO	None	1 - SS-Sleeve	10 day									X																							
SL-622-SA6-SB-3.5-4.5	12/19/12 08:15	SO	None	1 - 4 oz glass	10 day									X																							
SL-624-SA6-SB-0.0-0.5	12/19/12 08:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-624-SA6-SB-4.0-5.0	12/19/12 08:55	SO	None	1 - 4 oz glass	10 day									X																							
SL-623-SA6-SB-0.0-0.5	12/19/12 09:20	SO	None	1 - SS-Sleeve	10 day									X																							
SL-625-SA6-SB-0.0-0.5	12/19/12 09:50	SO	None	1 - SS-Sleeve	10 day									X																							

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348579768

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-02
Cooler #: 1,2
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Soil)	Mercury 7471 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/19/2012	1300	[illegible]	[illegible]	1800						

COC Rev 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348648761

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-05
Cooler #: 1
Lab: Test America Knoxville
Lab Phone: 865-291-3000
Lab Address: 5815 Middlebrook Pike Knoxville, TN 37921

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-121912	12/19/12 15:00	WQ	None	2 - 1 L Amber	10 day									X																							pH 6 Rcvd
EB2-121912	12/19/12 15:30	WQ	None	2 - 1 L Amber	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/19/2012	1300	[illegible]	12/20/12	1030						

1 cooler Rec'd @ 1.9°C
with custody seal intact
[illegible] 12/20/12
1 cooler FedEx #
7943 4864 8761

1 of 1

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?	✓			☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?	✓			If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 12/20/12

QA026R23.doc, 022812

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-37202-1

Login Number: 37202

List Source: TestAmerica Denver

List Number: 1

Creator: Uriell, Lisa B

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eichelberger, Elizabeth

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Friday, December 21, 2012 9:41 AM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-37202, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the thirty-two samples received at the laboratory on 12/20/12.

The samples were received in acceptable condition at temperatures of 3.4ºC, 4.4ºC(Denver) and 1.9ºC (Knoxville).

Receipt Discrepancies:

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory.

Please let us know if you have any questions or concerns.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [090396]
Attachments: 4

SAMPLE DELIVERY GROUP

280-37204-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-37204-1
Client Project/Site: CDM - SSFL Area IV, Phase III

For:
CDM Smith, Inc.
555 17th Street
Suite 1100
Denver, Colorado 80202

Attn: Mr. Todd Burgesser

Authorized for release by:
1/31/2013 8:29:27 AM

Lisa Uriell
Project Manager II
lisa.uriell@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions 4
Detection Summary 5
Method Summary 7
Sample Summary 8
Chronicle 9
Subcontract Data 11
Chain of Custody 45
Receipt Checklists 46

Job ID: 280-37204-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: SSFL Area IV, Phase III

Report Number: 280-37204-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving
Seven soil samples were received under Chain of Custody on December 20, 2012. The samples were received in good condition at temperatures of 3.4°C and 4.4°C.

The 1613B Dioxin analyses presented in this report was performed at Test America Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, 865.291.3065. Please reference that laboratory's report that is included in its entirety in this submittal.

No anomalies were encountered during sample receipt.

Qualifiers

DIOXIN

Qualifier	Qualifier Description
Q	Estimated maximum possible concentration (EMPC).
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
S	Ion suppression.
X	See project narrative.
a	Spiked analyte recovery is outside stated control limits.
p	Relative percent difference (RPD) is outside stated control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Client Sample ID: SL-504-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-1

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	99	B	51	2.0	0.01	0.99	ng/kg	10	☼	1613B	Total
OCDD	680	B	100	3.2	0.001	0.68	ng/kg	10	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.8	Q J	51	1.8	0.01	0.018	ng/kg	10	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	2.9	Q J	51	1.9	0.01	0.029	ng/kg	10	☼	1613B	Total
OCDF	18	J	100	2.6	0.001	0.018	ng/kg	10	☼	1613B	Total

Client Sample ID: SL-507-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-2

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.73	Q J	5.6	0.28	0.5	0.37	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.76	Q J	5.6	0.21	0.1	0.076	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	4.1	J	5.6	0.22	0.1	0.41	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	2.0	C J	5.6	0.20	0.1	0.20	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	100	B	5.6	0.24	0.01	1.0	ng/kg	1	☼	1613B	Total
OCDD	1800	B	11	0.24	0.001	1.8	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	1.1	J	1.1	0.36	0.1	0.11	ng/kg	1	☼	1613B	Total
1,2,3,7,8-PeCDF	0.75	Q J	5.6	0.24	0.05	0.038	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	1.3	Q J	5.6	0.22	0.5	0.65	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	3.1	C B J	5.6	0.13	0.1	0.31	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	1.7	Q J	5.6	0.14	0.1	0.17	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	2.4	J	5.6	0.14	0.1	0.24	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDF	0.22	Q J	5.6	0.16	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	28		5.6	0.16	0.01	0.28	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	1.4	J	5.6	0.29	0.01	0.014	ng/kg	1	☼	1613B	Total
OCDF	20		11	0.19	0.001	0.020	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-508-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-3

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.38	Q J	5.1	0.094	0.5	0.19	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDD	0.42	Q J	5.1	0.12	0.1	0.042	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	1.6	J	5.1	0.11	0.1	0.16	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	1.7	J	5.1	0.11	0.1	0.17	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	40	B	5.1	0.16	0.01	0.40	ng/kg	1	☼	1613B	Total
OCDD	350	S B	10	0.42	0.001	0.35	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.16	J	1.0	0.093	0.1	0.016	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.18	Q J	5.1	0.075	0.5	0.090	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.39	B J	5.1	0.056	0.1	0.039	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.40	Q J	5.1	0.055	0.1	0.040	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.14	Q J	5.1	0.064	0.1	0.014	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	5.0	J	5.1	0.12	0.01	0.050	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8,9-HpCDF	0.48	Q J	5.1	0.20	0.01	0.0048	ng/kg	1	☼	1613B	Total
OCDF	6.6	Q J	10	0.27	0.001	0.0066	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-504-SA3-SB-3.5-4.5 — Lab Sample ID: 280-37204-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	3.4	B J	5.1	0.40	0.01	0.034	ng/kg	1	☼	1613B	Total
OCDD	57	B	10	1.1	0.001	0.057	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.43	Q J	5.1	0.23	0.01	0.0043	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Client Sample ID: SL-504-SA3-SB-3.5-4.5 (Continued) — Lab Sample ID: 280-37204-4

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
OCDF	0.63	Q J	10	0.65	0.001	0.00063	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-507-SA3-SB-3.0-4.0MS — Lab Sample ID: 280-37204-5

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.096	J	5.6	0.066	0.1	0.0096	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDD	0.22	Q J	5.6	0.066	0.1	0.022	ng/kg	1	☼	1613B	Total
1,2,3,7,8,9-HxCDD	0.27	J	5.6	0.062	0.1	0.027	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	7.2	B	5.6	0.094	0.01	0.072	ng/kg	1	☼	1613B	Total
OCDD	78	B	11	0.15	0.001	0.078	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.098	Q J	5.6	0.061	0.5	0.049	ng/kg	1	☼	1613B	Total
1,2,3,4,7,8-HxCDF	0.13	Q B J	5.6	0.045	0.1	0.013	ng/kg	1	☼	1613B	Total
1,2,3,6,7,8-HxCDF	0.16	J	5.6	0.044	0.1	0.016	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	1.6	Q J	5.6	0.069	0.01	0.016	ng/kg	1	☼	1613B	Total
OCDF	0.96	S J	11	0.12	0.001	0.00096	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-907-SA3-SB-3.0-4.0 — Lab Sample ID: 280-37204-6

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.5	Q B J	5.3	0.31	0.01	0.015	ng/kg	1	☼	1613B	Total
OCDD	29	B	11	0.65	0.001	0.029	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.33	Q J	5.3	0.19	0.01	0.0033	ng/kg	1	☼	1613B	Total

Client Sample ID: SL-508-SA3-SB-3.5-4.5 — Lab Sample ID: 280-37204-7

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.12	Q J	5.5	0.052	0.1	0.012	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDD	2.0	B J	5.5	0.064	0.01	0.020	ng/kg	1	☼	1613B	Total
OCDD	22	B	11	0.049	0.001	0.022	ng/kg	1	☼	1613B	Total
2,3,7,8-TCDF	0.12	Q J	1.1	0.072	0.1	0.012	ng/kg	1	☼	1613B	Total
2,3,4,7,8-PeCDF	0.044	Q J	5.5	0.041	0.5	0.022	ng/kg	1	☼	1613B	Total
2,3,4,6,7,8-HxCDF	0.046	Q J	5.5	0.027	0.1	0.0046	ng/kg	1	☼	1613B	Total
1,2,3,4,6,7,8-HpCDF	0.42	Q J	5.5	0.036	0.01	0.0042	ng/kg	1	☼	1613B	Total
OCDF	0.31	Q J	11	0.046	0.001	0.00031	ng/kg	1	☼	1613B	Total

This Detection Summary does not include radiochemical test results.

Method Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Method	Method Description	Protocol	Laboratory
1613B	Dioxins/Furans, HRGC/HRMS (1613B)	EPA-5	TAL KNX
160.3 MOD	Moisture, Percent (160.3)	MCAWW	TAL KNX

Protocol References:

EPA-5 = EPA-5

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37204-1	SL-504-SA3-SB-0.0-0.5	Solid	12/18/12 10:20	12/20/12 09:00
280-37204-2	SL-507-SA3-SB-0.0-0.5	Solid	12/18/12 07:50	12/20/12 09:00
280-37204-3	SL-508-SA3-SB-0.0-0.5	Solid	12/18/12 09:15	12/20/12 09:00
280-37204-4	SL-504-SA3-SB-3.5-4.5	Solid	12/18/12 10:45	12/20/12 09:00
280-37204-5	SL-507-SA3-SB-3.0-4.0MS	Solid	12/18/12 08:15	12/20/12 09:00
280-37204-6	SL-907-SA3-SB-3.0-4.0	Solid	12/18/12 08:25	12/20/12 09:00
280-37204-7	SL-508-SA3-SB-3.5-4.5	Solid	12/18/12 09:30	12/20/12 09:00

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Client Sample ID: SL-504-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-1

Date Collected: 12/18/12 10:20 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 99.68**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.8 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		10			3021015	01/29/13 19:02	KBL	TAL KNX
Total	Analysis	160.3 MOD		1	0	0	2363022	12/28/12 10:26	TN	TAL KNX

Client Sample ID: SL-507-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-2

Date Collected: 12/18/12 07:50 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 92.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.7 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/29/13 17:00	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:26	TN	TAL KNX

Client Sample ID: SL-508-SA3-SB-0.0-0.5 — Lab Sample ID: 280-37204-3

Date Collected: 12/18/12 09:15 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 94.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.4 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 15:55	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:26	TN	TAL KNX

Client Sample ID: SL-504-SA3-SB-3.5-4.5 — Lab Sample ID: 280-37204-4

Date Collected: 12/18/12 10:45 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 97.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 16:54	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:27	TN	TAL KNX

Client Sample ID: SL-507-SA3-SB-3.0-4.0MS — Lab Sample ID: 280-37204-5

Date Collected: 12/18/12 08:15 — **Matrix: Solid**
Date Received: 12/20/12 09:00 — **Percent Solids: 93.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			9.6 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 18:54	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:28	TN	TAL KNX

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: CDM - SSFL Area IV, Phase III

TestAmerica Job ID: 280-37204-1

Client Sample ID: SL-907-SA3-SB-3.0-4.0

Lab Sample ID: 280-37204-6

Date Collected: 12/18/12 08:25
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10.2 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/28/13 17:54	KBL	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:28	TN	TAL KNX

Client Sample ID: SL-508-SA3-SB-3.5-4.5

Lab Sample ID: 280-37204-7

Date Collected: 12/18/12 09:30
Matrix: Solid
Date Received: 12/20/12 09:00
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	1613			10 g	20 uL	3021015_P	01/21/13 07:00		TAL KNX
Total	Analysis	1613B		1			3021015	01/30/13 02:01	PMP	TAL KNX
Total	Analysis	160.3 MOD		1		0	2363022	12/28/12 10:28	TN	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

H2L270403 Analytical Report 1

Sample Receipt Documentation 31

Total Number of Pages 33

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 280-37204-1

CDM - SSFL Area IV

Lot #: H2L270403

Lisa Uriell

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

TESTAMERICA LABORATORIES, INC.

Ryan Henry

Ryan Henry
Project Manager

January 30, 2013

ANALYTICAL METHODS SUMMARY

H2L270403

PARAMETER	ANALYTICAL METHOD
Dioxins/Furans, HRGC/HRMS	EPA-5 1613B
Percent Moisture	MCAWW 160.3 MOD

References:

EPA-5 "Method 1613: Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution, HRGC/HRMS, Revision B", EPA, OCTOBER 1994

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

H2L270403

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MXP9P	001	SL-504-SA3-SB-0.0-0.5	12/18/12	10:20
MXP9Q	002	SL-507-SA3-SB-0.0-0.5	12/18/12	07:50
MXP9R	003	SL-508-SA3-SB-0.0-0.5	12/18/12	09:15
MXP9T	004	SL-504-SA3-SB-3.5-4.5	12/18/12	10:45
MXP9V	005	SL-507-SA3-SB-3.0-4.0MS	12/18/12	08:15
MXP9W	006	SL-907-SA3-SB-3.0-4.0	12/18/12	08:25
MXP90	007	SL-508-SA3-SB-3.5-4.5	12/18/12	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H2L270403

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The matrix spike duplicate exhibited native OCDF at 41% recovery, which is below the lower acceptance criterion (63%). In addition, the relative percent difference (RPD) for OCDF was outside the method suggested 25% limit at 63%. The OCDF recovery on the laboratory control sample was within limits.

All 2378-TCDF results which met all qualitative requirements and were reported from the Rtx-5 column are qualified with an "X". This was done to indicate that the Rtx-5 column is not isomer specific for 2378-TCDF.

Sample SL-504-SA3-SB-0.0-0.5 was diluted 10-fold due to severe retention time shifting.

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:
>
> **Minimum Level**: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.
>
> Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass

PROJECT NARRATIVE
H2L270403

in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may

PROJECT NARRATIVE
H2L270403

indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

PROJECT NARRATIVE
H2L270403

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of ≥2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

TestAmerica Denver

Client Sample ID: SL-504-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 001	**Work Order #....:**	MXP9P2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	10
Prep Batch # ....:	3021015			**Percent Moisture:**	0.32
Initial Wgt/Vol :	9.8 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/29/13	10	ND	10	3.6	1.0	0
1,2,3,7,8-PeCDD	1/29/13	10	ND	51	2.1	1.0	0
1,2,3,4,7,8-HxCDD	1/29/13	10	ND	51	2.3	0.1	0
1,2,3,6,7,8-HxCDD	1/29/13	10	ND	51	2.5	0.1	0
1,2,3,7,8,9-HxCDD	1/29/13	10	ND	51	2.2	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/29/13**	**10**	**99 B**	**51**	**2.0**	**0.01**	**0.99**
OCDD	**1/29/13**	**10**	**680 B**	**100**	**3.2**	**0.0003**	**0.20**
2,3,7,8-TCDF	1/29/13	10	ND	10	2.5	0.1	0
1,2,3,7,8-PeCDF	1/29/13	10	ND	51	1.6	0.03	0
2,3,4,7,8-PeCDF	1/29/13	10	ND	51	1.5	0.3	0
1,2,3,4,7,8-HxCDF	1/29/13	10	ND	51	1.3	0.1	0
1,2,3,6,7,8-HxCDF	1/29/13	10	ND	51	1.4	0.1	0
2,3,4,6,7,8-HxCDF	1/29/13	10	ND	51	1.8	0.1	0
1,2,3,7,8,9-HxCDF	1/29/13	10	ND	51	1.9	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/29/13**	**10**	**1.8 Q J**	**51**	**1.8**	**0.01**	**0.018**
1,2,3,4,7,8,9-HpCDF	**1/29/13**	**10**	**2.9 Q J**	**51**	**1.9**	**0.01**	**0.029**
OCDF	**1/29/13**	**10**	**18 J**	**100**	**2.6**	**0.0003**	**0.0054**
Total TEQ Concentration							**1.2**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	48	(25 - 164)
13C-1,2,3,7,8-PeCDD	54	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	48	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	39	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	42	(23 - 140)
13C-OCDD	31	(17 - 157)
13C-2,3,7,8-TCDF	42	(24 - 169)
13C-1,2,3,7,8-PeCDF	49	(24 - 185)
13C-2,3,4,7,8-PeCDF	50	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	49	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	34	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	36	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	34	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	37	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	36	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	51	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-504-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-507-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 002	**Work Order #....:**	MXP9Q2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	7.5
Initial Wgt/Vol :	9.7 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/29/13	1	ND	1.1	0.50	1.0	0
1,2,3,7,8-PeCDD	**1/29/13**	**1**	**0.73 Q J**	**5.6**	**0.28**	**1.0**	**0.73**
1,2,3,4,7,8-HxCDD	**1/29/13**	**1**	**0.76 Q J**	**5.6**	**0.21**	**0.1**	**0.076**
1,2,3,6,7,8-HxCDD	**1/29/13**	**1**	**4.1 J**	**5.6**	**0.22**	**0.1**	**0.41**
1,2,3,7,8,9-HxCDD	**1/29/13**	**1**	**2.0 C J**	**5.6**	**0.20**	**0.1**	**0.20**
1,2,3,4,6,7,8-HpCDD	**1/29/13**	**1**	**100 B**	**5.6**	**0.24**	**0.01**	**1.0**
OCDD	**1/29/13**	**1**	**1800 B**	**11**	**0.24**	**0.0003**	**0.54**
2,3,7,8-TCDF	**1/29/13**	**1**	**1.1 J**	**1.1**	**0.36**	**0.1**	**0.11**
1,2,3,7,8-PeCDF	**1/29/13**	**1**	**0.75 Q J**	**5.6**	**0.24**	**0.03**	**0.022**
2,3,4,7,8-PeCDF	**1/29/13**	**1**	**1.3 Q J**	**5.6**	**0.22**	**0.3**	**0.39**
1,2,3,4,7,8-HxCDF	**1/29/13**	**1**	**3.1**	**5.6**	**0.13**	**0.1**	**0.31**
1,2,3,6,7,8-HxCDF	**1/29/13**	**1**	**1.7 Q J**	**5.6**	**0.14**	**0.1**	**0.17**
2,3,4,6,7,8-HxCDF	**1/29/13**	**1**	**2.4 J**	**5.6**	**0.14**	**0.1**	**0.24**
1,2,3,7,8,9-HxCDF	**1/29/13**	**1**	**0.22 Q J**	**5.6**	**0.16**	**0.1**	**0.022**
1,2,3,4,6,7,8-HpCDF	**1/29/13**	**1**	**28**	**5.6**	**0.16**	**0.01**	**0.28**
1,2,3,4,7,8,9-HpCDF	**1/29/13**	**1**	**1.4 J**	**5.6**	**0.29**	**0.01**	**0.014**
OCDF	**1/29/13**	**1**	**20**	**11**	**0.19**	**0.0003**	**0.0060**
Total TEQ Concentration							**4.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	(25 - 164)
13C-1,2,3,7,8-PeCDD	85	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	74	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	62	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	76	(23 - 140)
13C-OCDD	82	(17 - 157)
13C-2,3,7,8-TCDF	63	(24 - 169)
13C-1,2,3,7,8-PeCDF	81	(24 - 185)
13C-2,3,4,7,8-PeCDF	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	57	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	64	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	65	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	65	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	56	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	78	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-507-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-508-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 003	**Work Order #....:**	MXP9R2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	5.2
Initial Wgt/Vol :	10.4 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.0	0.13	1.0	0
1,2,3,7,8-PeCDD	**1/28/13**	**1**	**0.38 Q J**	**5.1**	**0.094**	**1.0**	**0.38**
1,2,3,4,7,8-HxCDD	**1/28/13**	**1**	**0.42 Q J**	**5.1**	**0.12**	**0.1**	**0.042**
1,2,3,6,7,8-HxCDD	**1/28/13**	**1**	**1.6 J**	**5.1**	**0.11**	**0.1**	**0.16**
1,2,3,7,8,9-HxCDD	**1/28/13**	**1**	**1.7 J**	**5.1**	**0.11**	**0.1**	**0.17**
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**40 B**	**5.1**	**0.16**	**0.01**	**0.40**
OCDD	**1/28/13**	**1**	**350 S B**	**10**	**0.42**	**0.0003**	**0.10**
2,3,7,8-TCDF	**1/28/13**	**1**	**0.16 J**	**1.0**	**0.093**	**0.1**	**0.016**
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.1	0.092	0.03	0
2,3,4,7,8-PeCDF	**1/28/13**	**1**	**0.18 Q J**	**5.1**	**0.075**	**0.3**	**0.054**
1,2,3,4,7,8-HxCDF	**1/28/13**	**1**	**0.39 B J**	**5.1**	**0.056**	**0.1**	**0.039**
1,2,3,6,7,8-HxCDF	**1/28/13**	**1**	**0.40 Q J**	**5.1**	**0.055**	**0.1**	**0.040**
2,3,4,6,7,8-HxCDF	**1/28/13**	**1**	**0.14 Q J**	**5.1**	**0.064**	**0.1**	**0.014**
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.1	0.076	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**5.0 J**	**5.1**	**0.12**	**0.01**	**0.050**
1,2,3,4,7,8,9-HpCDF	**1/28/13**	**1**	**0.48 Q J**	**5.1**	**0.20**	**0.01**	**0.0048**
OCDF	**1/28/13**	**1**	**6.6 Q J**	**10**	**0.27**	**0.0003**	**0.0020**
Total TEQ Concentration							**1.5**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	(25 - 164)
13C-1,2,3,7,8-PeCDD	78	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	68	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	63	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	71	(23 - 140)
13C-OCDD	30	(17 - 157)
13C-2,3,7,8-TCDF	72	(24 - 169)
13C-1,2,3,7,8-PeCDF	76	(24 - 185)
13C-2,3,4,7,8-PeCDF	77	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	78	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	66	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	68	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	64	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	60	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	52	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-508-SA3-SB-0.0-0.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-504-SA3-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 004	**Work Order #....:**	MXP9T2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	2.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.0	0.19	1.0	0
1,2,3,7,8-PeCDD	1/28/13	1	ND	5.1	0.17	1.0	0
1,2,3,4,7,8-HxCDD	1/28/13	1	ND	5.1	0.19	0.1	0
1,2,3,6,7,8-HxCDD	1/28/13	1	ND	5.1	0.19	0.1	0
1,2,3,7,8,9-HxCDD	1/28/13	1	ND	5.1	0.18	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**3.4 B J**	**5.1**	**0.40**	**0.01**	**0.034**
OCDD	**1/28/13**	**1**	**57 B**	**10**	**1.1**	**0.0003**	**0.017**
2,3,7,8-TCDF	1/28/13	1	ND	1.0	0.11	0.1	0
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.1	0.10	0.03	0
2,3,4,7,8-PeCDF	1/28/13	1	ND	5.1	0.094	0.3	0
1,2,3,4,7,8-HxCDF	1/28/13	1	ND	5.1	0.096	0.1	0
1,2,3,6,7,8-HxCDF	1/28/13	1	ND	5.1	0.087	0.1	0
2,3,4,6,7,8-HxCDF	1/28/13	1	ND	5.1	0.11	0.1	0
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.1	0.16	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**0.43 Q J**	**5.1**	**0.23**	**0.01**	**0.0043**
1,2,3,4,7,8,9-HpCDF	1/28/13	1	ND	5.1	0.46	0.01	0
OCDF	**1/28/13**	**1**	**0.63 Q J**	**10**	**0.65**	**0.0003**	**0.00019**
Total TEQ Concentration							**0.056**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 164)
13C-1,2,3,7,8-PeCDD	79	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	76	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	58	(23 - 140)
13C-OCDD	27	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	80	(24 - 185)
13C-2,3,4,7,8-PeCDF	77	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	96	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	85	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	66	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	54	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	40	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-504-SA3-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-507-SA3-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 005	**Work Order #....:**	MXP9V2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	6.4
Initial Wgt/Vol :	9.6 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	1/28/13	1	ND	5.6	0.076	1.0	0
1,2,3,4,7,8-HxCDD	**1/28/13**	**1**	**0.096 J**	**5.6**	**0.066**	**0.1**	**0.0096**
1,2,3,6,7,8-HxCDD	**1/28/13**	**1**	**0.22 Q J**	**5.6**	**0.066**	**0.1**	**0.022**
1,2,3,7,8,9-HxCDD	**1/28/13**	**1**	**0.27 J**	**5.6**	**0.062**	**0.1**	**0.027**
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**7.2 B**	**5.6**	**0.094**	**0.01**	**0.072**
OCDD	**1/28/13**	**1**	**78 B**	**11**	**0.15**	**0.0003**	**0.023**
2,3,7,8-TCDF	1/28/13	1	ND	1.1	0.093	0.1	0
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.6	0.070	0.03	0
2,3,4,7,8-PeCDF	**1/28/13**	**1**	**0.098 Q J**	**5.6**	**0.061**	**0.3**	**0.029**
1,2,3,4,7,8-HxCDF	**1/28/13**	**1**	**0.13 Q B J**	**5.6**	**0.045**	**0.1**	**0.013**
1,2,3,6,7,8-HxCDF	**1/28/13**	**1**	**0.16 J**	**5.6**	**0.044**	**0.1**	**0.016**
2,3,4,6,7,8-HxCDF	1/28/13	1	ND	5.6	0.047	0.1	0
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.6	0.070	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**1.6 Q J**	**5.6**	**0.069**	**0.01**	**0.016**
1,2,3,4,7,8,9-HpCDF	1/28/13	1	ND	5.6	0.12	0.01	0
OCDF	**1/28/13**	**1**	**0.96 S J**	**11**	**0.12**	**0.0003**	**0.00029**
Total TEQ Concentration							**0.23**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 164)
13C-1,2,3,7,8-PeCDD	98	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	92	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	79	(23 - 140)
13C-OCDD	50	(17 - 157)
13C-2,3,7,8-TCDF	79	(24 - 169)
13C-1,2,3,7,8-PeCDF	93	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	86	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	76	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	69	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	64	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	47	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-507-SA3-SB-3.0-4.0MS

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).
S	Ion suppression.

TestAmerica Denver

Client Sample ID: SL-907-SA3-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 006	**Work Order #....:**	MXP9W2AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	6.7
Initial Wgt/Vol :	10.2 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Kathryn B. Lay				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/28/13	1	ND	1.1	0.16	1.0	0
1,2,3,7,8-PeCDD	1/28/13	1	ND	5.3	0.12	1.0	0
1,2,3,4,7,8-HxCDD	1/28/13	1	ND	5.3	0.11	0.1	0
1,2,3,6,7,8-HxCDD	1/28/13	1	ND	5.3	0.12	0.1	0
1,2,3,7,8,9-HxCDD	1/28/13	1	ND	5.3	0.11	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/28/13**	**1**	**1.5 Q B J**	**5.3**	**0.31**	**0.01**	**0.015**
OCDD	**1/28/13**	**1**	**29 B**	**11**	**0.65**	**0.0003**	**0.0087**
2,3,7,8-TCDF	1/28/13	1	ND	1.1	0.11	0.1	0
1,2,3,7,8-PeCDF	1/28/13	1	ND	5.3	0.090	0.03	0
2,3,4,7,8-PeCDF	1/28/13	1	ND	5.3	0.083	0.3	0
1,2,3,4,7,8-HxCDF	1/28/13	1	ND	5.3	0.077	0.1	0
1,2,3,6,7,8-HxCDF	1/28/13	1	ND	5.3	0.076	0.1	0
2,3,4,6,7,8-HxCDF	1/28/13	1	ND	5.3	0.089	0.1	0
1,2,3,7,8,9-HxCDF	1/28/13	1	ND	5.3	0.14	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/28/13**	**1**	**0.33 Q J**	**5.3**	**0.19**	**0.01**	**0.0033**
1,2,3,4,7,8,9-HpCDF	1/28/13	1	ND	5.3	0.42	0.01	0
OCDF	1/28/13	1	ND	11	0.50	0.0003	0
Total TEQ Concentration							**0.027**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
13C-1,2,3,7,8-PeCDD	80	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	94	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	80	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	56	(23 - 140)
13C-OCDD	27	(17 - 157)
13C-2,3,7,8-TCDF	73	(24 - 169)
13C-1,2,3,7,8-PeCDF	79	(24 - 185)
13C-2,3,4,7,8-PeCDF	76	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	96	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	85	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	86	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	65	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	55	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	35	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

TestAmerica Denver

Client Sample ID: SL-907-SA3-SB-3.0-4.0

Dioxins/Furans, HRGC/HRMS (1613B)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Denver

Client Sample ID: SL-508-SA3-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

Lot - Sample #....:	H2L270403 - 007	**Work Order #....:**	MXP902AC	**Matrix.....:**	SO
Date Sampled....:	12/18/12	**Date Received....:**	12/27/12	**Units....:**	ng/kg
Prep Date....:	01/21/13			**Dilution Factor:**	1
Prep Batch # ....:	3021015			**Percent Moisture:**	9.4
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method....:**	EPA-5 1613B
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	ANALYSIS DATE	DILUTION FACTOR	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	WHO 2005 TEF FACTOR	TEQ CONC.
2,3,7,8-TCDD	1/30/13	1	ND	1.1	0.11	1.0	0
1,2,3,7,8-PeCDD	1/30/13	1	ND	5.5	0.063	1.0	0
1,2,3,4,7,8-HxCDD	1/30/13	1	ND	5.5	0.046	0.1	0
1,2,3,6,7,8-HxCDD	**1/30/13**	**1**	**0.12 Q J**	**5.5**	**0.052**	**0.1**	**0.012**
1,2,3,7,8,9-HxCDD	1/30/13	1	ND	5.5	0.046	0.1	0
1,2,3,4,6,7,8-HpCDD	**1/30/13**	**1**	**2.0 B J**	**5.5**	**0.064**	**0.01**	**0.020**
OCDD	**1/30/13**	**1**	**22 B**	**11**	**0.049**	**0.0003**	**0.0066**
2,3,7,8-TCDF	**1/30/13**	**1**	**0.12 Q J**	**1.1**	**0.072**	**0.1**	**0.012**
1,2,3,7,8-PeCDF	1/30/13	1	ND	5.5	0.045	0.03	0
2,3,4,7,8-PeCDF	**1/30/13**	**1**	**0.044 Q J**	**5.5**	**0.041**	**0.3**	**0.013**
1,2,3,4,7,8-HxCDF	1/30/13	1	ND	5.5	0.027	0.1	0
1,2,3,6,7,8-HxCDF	1/30/13	1	ND	5.5	0.028	0.1	0
2,3,4,6,7,8-HxCDF	**1/30/13**	**1**	**0.046 Q J**	**5.5**	**0.027**	**0.1**	**0.0046**
1,2,3,7,8,9-HxCDF	1/30/13	1	ND	5.5	0.034	0.1	0
1,2,3,4,6,7,8-HpCDF	**1/30/13**	**1**	**0.42 Q J**	**5.5**	**0.036**	**0.01**	**0.0042**
1,2,3,4,7,8,9-HpCDF	1/30/13	1	ND	5.5	0.072	0.01	0
OCDF	**1/30/13**	**1**	**0.31 Q J**	**11**	**0.046**	**0.0003**	**0.000093**
Total TEQ Concentration							**0.073**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	(25 - 164)
13C-1,2,3,7,8-PeCDD	99	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	89	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	73	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	89	(23 - 140)
13C-OCDD	83	(17 - 157)
13C-2,3,7,8-TCDF	77	(24 - 169)
13C-1,2,3,7,8-PeCDF	95	(24 - 185)
13C-2,3,4,7,8-PeCDF	92	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	82	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	78	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	75	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	74	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	66	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	93	(35 - 197)

TestAmerica Denver

Client Sample ID: SL-508-SA3-SB-3.5-4.5

Dioxins/Furans, HRGC/HRMS (1613B)

NOTES:

The authors of these TEFs caution against their inappropriate application to situations where they have limited toxicological relevance.

Van den Berg, M; Birnbaum, LS; et al. (2006) The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, July 2006. Toxicological Sciences 93(2), 223-241.

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

When the sample result is Not Detected (ND) the TEQ Concentration = Zero

If applicable, the TEQ Concentration for coeluting PCB isomers 156 and 157 is only added once to the Total TEQ Concentration.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A210000 - 015B	**Work Order #....:**	MXW5L1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/21/13	**Analysis Date....:**	01/25/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3021015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.15	ng/kg
1,2,3,7,8-PeCDD	ND		5.0	0.071	ng/kg
1,2,3,4,7,8-HxCDD	ND		5.0	0.065	ng/kg
1,2,3,6,7,8-HxCDD	ND		5.0	0.066	ng/kg
1,2,3,7,8,9-HxCDD	ND		5.0	0.061	ng/kg
1,2,3,4,6,7,8-HpCDD	**0.053**	**Q J**	**5.0**	**0.056**	**ng/kg**
OCDD	**0.84**	**J**	**10**	**0.074**	**ng/kg**
2,3,7,8-TCDF	ND		1.0	0.090	ng/kg
1,2,3,7,8-PeCDF	ND		5.0	0.052	ng/kg
2,3,4,7,8-PeCDF	ND		5.0	0.054	ng/kg
1,2,3,4,7,8-HxCDF	**0.035**	**Q J**	**5.0**	**0.032**	**ng/kg**
1,2,3,6,7,8-HxCDF	ND		5.0	0.032	ng/kg
2,3,4,6,7,8-HxCDF	ND		5.0	0.033	ng/kg
1,2,3,7,8,9-HxCDF	ND		5.0	0.040	ng/kg
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.044	ng/kg
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.071	ng/kg
OCDF	ND		10	0.084	ng/kg

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	25 - 164
13C-1,2,3,7,8-PeCDD	92	25 - 181
13C-1,2,3,4,7,8-HxCDD	85	32 - 141
13C-1,2,3,6,7,8-HxCDD	66	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	73	23 - 140
13C-OCDD	66	17 - 157
13C-2,3,7,8-TCDF	74	24 - 169
13C-1,2,3,7,8-PeCDF	94	24 - 185
13C-2,3,4,7,8-PeCDF	82	21 - 178
13C-1,2,3,4,7,8-HxCDF	79	26 - 152
13C-1,2,3,6,7,8-HxCDF	67	26 - 123
13C-2,3,4,6,7,8-HxCDF	71	28 - 136
13C-1,2,3,7,8,9-HxCDF	74	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	72	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	69	26 - 138

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H3A210000 - 015B	**Work Order #....:**	MXW5L1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	01/21/13	**Analysis Date....:**	01/25/13	**Percent Moisture:**	0.0
Prep Batch # ....:	3021015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	M2A	**Method:**	EPA-5 1613B
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	35 - 197

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270403	**Work Order # ...:**	MXW5L1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H3A210000 - 015				
Prep Date .....:	01/21/13	**Analysis Date ..:**	01/25/13		
Prep Batch # ...:	3021015				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**21.7**	**ng/kg**	**108**		**(67 - 158)**
1,2,3,7,8-PeCDD	**100**	**107**	**ng/kg**	**107**		**(70 - 142)**
1,2,3,4,7,8-HxCDD	**100**	**104**	**ng/kg**	**104**		**(70 - 164)**
1,2,3,6,7,8-HxCDD	**100**	**101**	**ng/kg**	**101**		**(76 - 134)**
1,2,3,7,8,9-HxCDD	**100**	**101**	**ng/kg**	**101**		**(64 - 162)**
1,2,3,4,6,7,8-HpCDD	**100**	**101**	**ng/kg**	**101**	**B**	**(70 - 140)**
OCDD	**200**	**203**	**ng/kg**	**102**	**B**	**(78 - 144)**
2,3,7,8-TCDF	**20.0**	**20.4**	**ng/kg**	**102**		**(75 - 158)**
1,2,3,7,8-PeCDF	**100**	**100**	**ng/kg**	**100**		**(80 - 134)**
2,3,4,7,8-PeCDF	**100**	**104**	**ng/kg**	**104**		**(68 - 160)**
1,2,3,4,7,8-HxCDF	**100**	**101**	**ng/kg**	**101**	**B**	**(72 - 134)**
1,2,3,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(84 - 130)**
2,3,4,6,7,8-HxCDF	**100**	**104**	**ng/kg**	**104**		**(70 - 156)**
1,2,3,7,8,9-HxCDF	**100**	**106**	**ng/kg**	**106**		**(78 - 130)**
1,2,3,4,6,7,8-HpCDF	**100**	**102**	**ng/kg**	**102**		**(82 - 122)**
1,2,3,4,7,8,9-HpCDF	**100**	**102**	**ng/kg**	**102**		**(78 - 138)**
OCDF	**200**	**173**	**ng/kg**	**86**		**(63 - 170)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(20 - 175)
13C-1,2,3,7,8-PeCDD	90	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	92	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	74	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	73	(26 - 166)
13C-OCDD	63	(13 - 199)
13C-2,3,7,8-TCDF	72	(22 - 152)
13C-1,2,3,7,8-PeCDF	95	(21 - 192)
13C-2,3,4,7,8-PeCDF	83	(13 - 328)
13C-1,2,3,4,7,8-HxCDF	91	(19 - 202)
13C-1,2,3,6,7,8-HxCDF	76	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	79	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	79	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	77	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	72	(20 - 186)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	81	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270403	**Work Order # ...:**	MXP9V2AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270403 - 005		MXP9V2AE-MSD		
Prep Date .....:	01/21/13	**Analysis Date ..:**	01/28/13		
Prep Batch # ...:	3021015				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**ND**	**21.8**	**23.6**	**ng/kg**	**108**	**(67 - 158)**		
	ND	**21.8**	**23.4**	**ng/kg**	**107**	**(67 - 158)**	**0.53**	**(0 - 25)**
1,2,3,7,8-PeCDD	**ND**	**109**	**118**	**ng/kg**	**108**	**(70 - 142)**		
	ND	**109**	**115**	**ng/kg**	**105**	**(70 - 142)**	**3.0**	**(0 - 25)**
1,2,3,4,7,8-HxCDD	**0.096**	**109**	**114**	**ng/kg**	**104**	**(70 - 164)**		
	0.096	**109**	**115**	**ng/kg**	**106**	**(70 - 164)**	**1.6**	**(0 - 25)**
1,2,3,6,7,8-HxCDD	**0.22**	**109**	**111**	**ng/kg**	**102**	**(76 - 134)**		
	0.22	**109**	**109**	**ng/kg**	**100**	**(76 - 134)**	**1.9**	**(0 - 25)**
1,2,3,7,8,9-HxCDD	**0.27**	**109**	**113**	**ng/kg**	**103**	**(64 - 162)**		
	0.27	**109**	**113**	**ng/kg**	**104**	**(64 - 162)**	**0.63**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDD	**7.2**	**109**	**118**	**ng/kg**	**102 B**	**(70 - 140)**		
	7.2	**109**	**119**	**ng/kg**	**103 B**	**(70 - 140)**	**0.94**	**(0 - 25)**
OCDD	**78**	**218**	**294**	**ng/kg**	**99 B**	**(78 - 144)**		
	78	**218**	**294**	**ng/kg**	**99 B**	**(78 - 144)**	**0.20**	**(0 - 25)**
2,3,7,8-TCDF	**ND**	**21.8**	**22.7**	**ng/kg**	**104 X**	**(75 - 158)**		
	ND	**21.8**	**22.7**	**ng/kg**	**104 X**	**(75 - 158)**	**0.24**	**(0 - 25)**
1,2,3,7,8-PeCDF	**ND**	**109**	**112**	**ng/kg**	**103**	**(80 - 134)**		
	ND	**109**	**114**	**ng/kg**	**104**	**(80 - 134)**	**1.4**	**(0 - 25)**
2,3,4,7,8-PeCDF	**0.098**	**109**	**116**	**ng/kg**	**106**	**(68 - 160)**		
	0.098	**109**	**118**	**ng/kg**	**108**	**(68 - 160)**	**1.8**	**(0 - 25)**
1,2,3,4,7,8-HxCDF	**0.13**	**109**	**115**	**ng/kg**	**105 B**	**(72 - 134)**		
	0.13	**109**	**115**	**ng/kg**	**106 B**	**(72 - 134)**	**0.24**	**(0 - 25)**
1,2,3,6,7,8-HxCDF	**0.16**	**109**	**114**	**ng/kg**	**104**	**(84 - 130)**		
	0.16	**109**	**119**	**ng/kg**	**109**	**(84 - 130)**	**4.3**	**(0 - 25)**
2,3,4,6,7,8-HxCDF	**ND**	**109**	**113**	**ng/kg**	**104**	**(70 - 156)**		
	ND	**109**	**113**	**ng/kg**	**103**	**(70 - 156)**	**0.32**	**(0 - 25)**
1,2,3,7,8,9-HxCDF	**ND**	**109**	**115**	**ng/kg**	**106**	**(78 - 130)**		
	ND	**109**	**115**	**ng/kg**	**105**	**(78 - 130)**	**0.77**	**(0 - 25)**
1,2,3,4,6,7,8-HpCDF	**1.6**	**109**	**114**	**ng/kg**	**103**	**(82 - 122)**		
	1.6	**109**	**121**	**ng/kg**	**110**	**(82 - 122)**	**6.6**	**(0 - 25)**
1,2,3,4,7,8,9-HpCDF	**ND**	**109**	**110**	**ng/kg**	**101**	**(78 - 138)**		
	ND	**109**	**115**	**ng/kg**	**105**	**(78 - 138)**	**3.7**	**(0 - 25)**
OCDF	**0.96**	**218**	**173**	**ng/kg**	**79**	**(63 - 170)**		
	0.96	**218**	**89.9**	**ng/kg**	**41 a p**	**(63 - 170)**	**63**	**(0 - 25)**

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270403	**Work Order # ...:**	MXP9V2AD-MS MXP9V2AE-MSD	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270403 - 005				
Prep Date .....:	01/21/13	**Analysis Date ..:**	01/28/13		
Prep Batch # ...:	3021015				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 164)
	76	(25 - 164)
13C-1,2,3,7,8-PeCDD	81	(25 - 181)
	87	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	93	(32 - 141)
	91	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	74	(28 - 130)
	77	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	65	(23 - 140)
	73	(23 - 140)
13C-OCDD	53	(17 - 157)
	47	(17 - 157)
13C-2,3,7,8-TCDF	75	(24 - 169)
	74	(24 - 169)
13C-1,2,3,7,8-PeCDF	88	(24 - 185)
	84	(24 - 185)
13C-2,3,4,7,8-PeCDF	74	(21 - 178)
	79	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	93	(26 - 152)
	87	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	80	(26 - 123)
	77	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	81	(28 - 136)
	83	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	82	(29 - 147)
	72	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	69	(28 - 143)
	64	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	61	(26 - 138)
	49	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(35 - 197)
	85	(35 - 197)

SOG_Stnd_msmsd_rev1.rpt 1/30/2013

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H2L270403	**Work Order # ...:**	MXP9V2AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H2L270403 - 005		MXP9V2AE-MSD		
Prep Date .....:	01/21/13	**Analysis Date ..:**	01/28/13		
Prep Batch # ...:	3021015				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M2A	**Method.....:**	EPA-5 1613B
Initial Wgt/Vol:	9.6 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

p Relative percent difference (RPD) is outside stated control limits.

X See project narrative.

Sample Receipt Documentation

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

H2L270403

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Uriell, Lisa B	Carrier Tracking No(s):	COC No: 280-165652.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lisa.uriell@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 280-37204-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/2/2013			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: CDM - SSFL Area IV, Phase III	Project #: 28008534			
Site:	SSOW#:			

Analysis Requested

REC. @ 1.2°C
CUSTODY SEAL INTACT
1 COOLER RH 12-27-12
FED EX # 549036936435

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B Dioxins	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SL-504-SA3-SB-0.0-0.5 (280-37204-1)	12/18/12	10:20 Pacific		Solid			X	X		, TEQs required
SL-507-SA3-SB-0.0-0.5 (280-37204-2)	12/18/12	07:50 Pacific		Solid			X	X		, TEQs required
SL-508-SA3-SB-0.0-0.5 (280-37204-3)	12/18/12	09:15 Pacific		Solid			X	X		, TEQs required
SL-504-SA3-SB-3.5-4.5 (280-37204-4)	12/18/12	10:45 Pacific		Solid			X	X		, TEQs required
SL-507-SA3-SB-3.0-4.0MS (280-37204-5)	12/18/12	08:15 Pacific		Solid			X	X		TEQs required
SL-507-SA3-SB-3.0-4.0MS (280-37204-5MS)	12/18/12	08:15 Pacific	MS	Solid			X			TEQs required
SL-507-SA3-SB-3.0-4.0MS (280-37204-5MSD)	12/18/12	08:15 Pacific	MSD	Solid			X			TEQs required
SL-907-SA3-SB-3.0-4.0 (280-37204-6)	12/18/12	08:25 Pacific		Solid			X	X		TEQs required
SL-508-SA3-SB-3.5-4.5 (280-37204-7)	12/18/12	09:30 Pacific		Solid			X	X		, TEQs required

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	12/26/12 1600	TAD	[illegible]	12/26/12 1600	TA
[illegible]	12/26/12 1600	TAD	[illegible]	12/27/12 1015	

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1212270403

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 12/27/12

QA026R23.doc, 022812

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/19/2012
CarrierName: FedEx
AirbillNo: 794348579768

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20121219-03
Cooler #: 1
Lab: TestAmerica - Denver
Lab Phone: 303-736-0100
Lab Address: 4955 Yarrow Street Arvada, CO 80002

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-504-SA3-SB-0.0-0.5	12/18/12 10:20	SO	None	1 - SS-Sleeve	10 day									X																							
SL-507-SA3-SB-0.0-0.5	12/18/12 07:50	SO	None	1 - SS-Sleeve	10 day									X																							
SL-508-SA3-SB-0.0-0.5	12/18/12 09:15	SO	None	1 - SS-Sleeve	10 day									X																							
SL-504-SA3-SB-3.5-4.5	12/18/12 10:45	SO	None	1 - 4 oz glass	10 day									X																							
SL-507-SA3-SB-3.0-4.0MS	12/18/12 08:15	SO	None	3 - 4 oz glass	10 day									X																							MS/MSD
SL-907-SA3-SB-3.0-4.0	12/18/12 08:25	SO	None	1 - 4 oz glass	10 day									X																							
SL-508-SA3-SB-3.5-4.5	12/18/12 09:30	SO	None	1 - 4 oz glass	10 day									X																							

Special Instructions:

Sampler: Mark Peters

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/19/2012	1300	[illegible]	12/20/12	1130						

COC Rev 2

COC: 20121219-03, Page 1 of 1

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 280-37204-1

Login Number: 37204
List Number: 1
Creator: Uriell, Lisa B

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eichelberger, Elizabeth

From: Eichelberger, Elizabeth [elizabeth.eichelberger@testamericainc.com]
Sent: Friday, December 21, 2012 9:46 AM
To: Todd Burgesser; Pam Hartman; Stephanie Mysel; Cherie Zakowski
Cc: Uriell, Lisa
Subject: Sample Login Confirmation for 280-37204, CDM - SSFL Area IV, Phase III

Attached, please find the sample login acknowledgment, receipt checklist and chain of custody for the seven samples received at the laboratory on 12/20/12.

The samples were received in acceptable condition at temperatures of 3.4ºC and 4.4ºC.

Receipt Discrepancies: None

Please note:
1.) SSFL samples have been homogenized per the SSFL SOP 17 Revision 1 which requires segregation of volatile analyses from the volume that will be homogenized.

Subcontracts:
1.) TestAmerica's Denver laboratory subcontracted the 1613B-Dioxins analysis to TestAmerica's Knoxville laboratory.

Please let us know if you have any questions or concerns.

ELIZABETH M EICHELBERGER

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0138
www.testamericainc.com

Reference: [090397]
Attachments: 3

Appendix C
Data Usability Assessment Report and Data Validation Reports
(On CD)

Appendix C
Data Usability Assessment Report

The purpose of this data usability and assessment report (DUAR) is to summarize the data validation performed on the data sets for Subarea 3 and Subarea 6 samples collected, and determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM Smith] 2012a) (Master FSP) and *Addendum No. 1 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subareas 3 and 6* (CDM Smith 2012b) (Addendum to the Master FSP).

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

C.1 Usability Summary

For this data usability assessment, six data sets were reviewed for Subarea 3 and 61 data sets were reviewed for Subarea 6. 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 2.5 of the Subareas 3 and 6 Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the Master FSP (CDM Smith 2012a). Deviations were encountered during the field investigation for the Subareas 3 and 6 sampling activities and are discussed in detail in Section 2.7 of the Subareas 3 and 6 TM.

The validated data for Subarea 3 samples are usable as reported. No data were rejected. For Subarea 6, two dinitrobutyl phenol results were rejected. For all Subarea 6 data, 0.0008 percent of the results were rejected. These rejected data and any impact to project objectives and goals are being evaluated in the data gap review process. Specific validation 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. The Level IV determination also included reviewing 10 percent for each laboratory and each method. In order to achieve this, the validators chose appropriate samples in each SDG. Hence, not all samples in some of the SDGs were Level IV validated but they received a mixture of Level IV and Level III review.

Table C-1 shows all SDGs that include Subarea 3 and Subarea 6 samples and which SDGs were validated as Level III or Level IV. Some SDGs contain samples from other subareas but all samples in an SDG were validated together.

In order to evaluate the quality of the laboratory and the validation firm, CDM Smith chemists reviewed 10 percent of the Subarea 3 and Subarea 6 sample SDGs. The purpose of the review was to identify any quality control issues with the laboratory not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review.

C.3 Quality Assurance Objectives

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

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

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

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

C.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities in Subareas 3 and 6 in accordance with the approved Master FSP (CDM Smith 2012a) and discussed in the Subareas 3 and 6 TM. A total of 13 soil samples in Subarea 3 and 290 samples in Subarea 6 were collected and analyzed from the locations in Subareas 3 and 6. Tables 2-1 and 2-2 in the Subareas 3 and 6 TM provides a summary of the samples collected and the laboratory analyses requested.

An index of samples associated with each SDG is presented at the beginning of the data validation reports presented in this appendix. The Master FSP (CDM Smith 2012a) defined the procedures to be followed and the data quality requirements for the field sampling events.

C.5 Field Quality QA/QC

The MS/MSDs and field duplicates field QC samples were collected at a frequency of approximately 1 per 20 samples (5 percent). During sampling in Subarea 3, a total of one field duplicate/MS/MSD sample was collected equating to approximately eight percent. Both Test America and EMAX laboratories analyzed samples for TPH GRO. A field duplicate/MS/MSD was not collected for the one sample analyzed by Test America. One field QC sample was collected (field duplicate and MS/MSD) for the three samples analyzed by EMAX. All QC results were within criteria for this sample so the missing field duplicate and MS/MSD sample for Test America is not considered to impact data quality.

In Subarea 6, a total of 14 field QC samples (field duplicate and MS/MSD samples) were collected equating to approximately five percent. On an individual method basis, the five percent goal was approximately met or exceeded for all analyses except for herbicides analyzed by Test America (3.8 percent) and TPH GRO (C5-C12) sample results analyzed by EMAX (2.2 percent). A total of 35 samples were collected for herbicide analysis. Test America analyzed 26 of those samples and EMAX analyzed nine of the samples. For TPH GRO, Test America analyzed 46 samples and EMAX analyzed 45 samples. QC parameters were within acceptable control limits for the herbicide and TPH GRO samples so this oversight in field duplicate and MS/MSD sample collection suggests there is minimal impacts to data quality. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) except for the herbicide and TPH GRO methods as discussed previously.

Fourteen equipment rinsate blank samples were collected for Subareas 3 and 6. The equipment rinsate blank results are presented in Tables C-4 and C-5.

One field blank was collected during sampling for Subareas 3 and 6. Other field blanks are associated with these Subareas and associated samples have been qualified accordingly. The results for these samples are presented in Tables C-6 and C-7.

Ten trip blank samples were shipped with the Subareas 3 and 6 samples. The results for these samples are presented in Tables C-5 and C6. 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 Subareas 3 and 6 met criteria.

Performance evaluation samples were submitted to Test America Laboratories. Results of these are discussed in the Subareas 3 and 6 TM.

As stated previously, on an individual method basis, the five percent goal was approximately met or exceeded for all analyses except for herbicides and TPH GRO as field duplicates and MS/MSDs were inadvertently not collected at the right frequency per individual laboratory. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) for the Phase 3 Subareas 3 and 6 sampling program except for the methods listed above. 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. Two analyte results were rejected and are discussed below.

C.7 Data Quality Indicators

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

Achievement of the DQOs was determined in part by the use of data quality indicators (DQIs) as described in the Master FSP (CDM Smith 2012a). These DQIs for measurement data are expressed in terms of PARCCS. The DQIs provide a mechanism for ongoing control to evaluate and measure data quality throughout the project. These criteria are defined in the sections below.

C.7.1 Precision

Precision is a quantitative term that estimates the reproducibility of a set of replicate measurements under a given set of conditions. It is defined as a measurement of mutual agreement between measurements of the same property and is expressed in terms of relative percent difference (RPD) between duplicate determinations.

RPD is calculated as follows:

$$\textbf{RPD = absolute value [(C1-C2)/\{(C1+C2)/2)\}] x 100\%}$$

Where:

C1 = concentration of primary sample
C2 = concentration of duplicate sample

Field and analytical precision were determined from the review of the field duplicate results. The sample results were compared by calculating their RPDs. The field duplicate samples

were collected in the same manner as the original samples but were collected in separate, individual containers, given separate sample identifiers, and treated as individual samples by the laboratory.

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

The field duplicate RPD criterion is 50 percent. Field duplicates for this project were validated using the following: If one result is non-detect and the other result is above the RL, the RPD result is shown as 200 percent and the field duplicate sample and parent sample results are qualified as estimated "J" or "UJ." If the field duplicate RPD was above the 50 percent criterion (and both sample results were above the RL), the field duplicate and parent sample results for that analyte were qualified as estimated "J."

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory and field duplicate precision results. Details are discussed in the laboratory validation reports in this appendix. Tables C-8 and C9 shows the field duplicate pairs and RPD results for Subareas 3 and 6. RPD results outside of criteria are highlighted.

The following Subarea 3 individual analyte results were qualified as estimated "J/UJ" based on precision criteria:

- Twenty-two metal analyte results due to laboratory precision criteria

The following Subarea 6 individual analyte results were qualified as estimated "J/UJ" based on precision criteria:

- Ninety-six metal analyte results due to laboratory precision criteria

Field duplicate precision criteria for Phase 3 Subarea 3 samples required the qualification of 10 analytes for dioxins, two metals and three TPH EFH results. For Phase 3 Subarea 6 samples, 75 dioxins, two metals, one mercury, seven TPH EFH, one TPH GRO, four PCB/PCTs, three herbicides, and 58 SVOC SIM results were also qualified due to field duplicate precision criteria. No results were rejected based on field duplicate precision criteria. All field duplicate RPD results are presented in Appendix C. In summary, sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

There is no discernable pattern or reason for the laboratory and field sample RPD exceedances identified. No field sampling issues were identified from the RPD results that were outside of criteria and the exceedances are reasonable for this type of sampling activity.

C.7.2 Accuracy

Accuracy is the degree of agreement between a measurement and the accepted reference or true value and is a measure of the bias in a system. Accuracy of the data was assessed by comparing LCS recovery, MS recovery, calibration recovery, Inductively Coupled Plasma (ICP)

interferences, and by performing serial dilution checks during metals analyses. Accuracy is expressed as percent recovery (%R), which is calculated by:

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

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

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

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

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory accuracy results and are discussed in detail in the laboratory validation reports in Appendix C.

The following Subarea 3 individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- One dioxin and 62 metal results due to MS recoveries
- Forty metal analyte results due to serial dilutions

The following Subarea 6 individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- Nine dioxins, 471 metals, five pesticides, nine PCB/PCTs, one herbicide, and 11 SVOC SIM results due to MSs
- Fifteen dioxins and two herbicide results due to LCSs
- Four TPH EFH results, three pesticides, and 25 PCB/PCTs results due to surrogates
- Three hundred and fourteen metal analyte results due to serial dilutions
- Twenty-one dioxins, four pesticides and one PCB/PCT result due to confirmation column results
- Six pesticides and 18 PCB/PCTs results based on calibration criteria
- Thirty-eight dioxin results for internal standards
- Sixty-six metal results for ICP interference check sample (ICS) criteria

- Three TPH GRO results based on holding times

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

- Two herbicide results (dinitrobutyl phenol) based on LCSs

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 as indicated previously.

Sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Sample results that have been rejected are not usable for project decisions.

C.7.3 Blank Contamination

Field blanks (e.g., equipment and trip) and laboratory method blanks are analyzed to identify possible sources of contamination. Contamination of a sample can be introduced by field sample collection methods, sample handling, preparation, and/or analysis. The laboratory validation reports in this appendix and summarized below discuss the results qualified based on field and laboratory blank contamination.

The following individual analyte results were qualified as nondetect "U" based on blank contamination for the Subarea 3 samples:

- One dioxin result (0.49%)
- Eight metal results (2.2%)
- Three SVOC SIM (1.2%) results

The following individual analyte results were qualified as nondetect "U" based on blank contamination for the Subarea 6 samples:

- Four hundred and six dioxin results (9%)
- Ninety-seven metal results (1.2%)
- Twenty TPH EFH results (1.28%)
- Forty-seven SVOC SIM (0.9%) results

For the dioxins, MDLs for this analysis are very low, reported in nanogram per kilogram (ng/kg) or parts per trillion, resulting in numerous results qualified as estimated "J." Many of these estimated values have been subsequently qualified as non-detect "U" because the compound was detected in related laboratory blanks. In the laboratory blanks, low level detections of dioxin analytes are somewhat inevitable because of the nature and universal extent of the compounds. The dioxin levels found in the blanks are well below site-related

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

Tables C-2 through C-7 provide a summary of chemicals observed in the equipment, field and trip blank samples. Most of the equipment blanks, field blanks and trip blanks detected compounds were below the RLs but above the MDLs. ASTM International Type II water is not typically certified "clean" to the low RLs established for the low level methods used for the co-located sampling program.

A review of the Phase 3 equipment blanks for Subarea 3 and Subarea 6 was also performed. In general, a variety of analytes were detected above their respective RLs. All Phase 3 equipment blanks will continue to be monitored to determine if these low level detections are consistent, thus indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected.

For Subarea 3, one mercury result and eight metal results were qualified based on field/equipment blanks results. For Subarea 6, one mercury result and 293 metal results and nine SVOC SIM results were also qualified based on field/equipment blank criteria. To date, chemical detections in equipment blank samples appear to be random occurrences.

Detected trip blank results are presented in Tables C-6 and C-7. All the trip blank samples had detections of GRO. The trip blank samples were received from the laboratory in coolers with the empty sample jars and were returned to the laboratory with the collected samples while unopened in the field. Since these results were detected by both Test America and EMAX, both laboratories were requested to review these anomalous results and the chromatograms for these samples. EMAX noted that the detected analytes were the results of one or more discrete peaks that eluted in the range of GROs, (from C5 to C12). EMAX also reported that there was no gasoline pattern shown in these trip blanks. Test America reported that the concentrations detected in the trip blanks fall within the acceptable method blank criteria of less than half of the MRL. The concentration could be the result of an irregular baseline since it is not reasonable to expect a perfectly flat baseline under all circumstances. This is why the laboratory method blank criterion is routinely set at half of the MRL. Both laboratories concluded that the detected GRO results were not the result of contamination in transit.

The validators also reviewed the chromatograms for each blank sample and confirmed the laboratories evaluation. CDM Smith chemists further reviewed the trip blank results and chromatograms from each laboratory and are in agreement with the laboratories in that the contamination seen in the trip blank samples is normal low level baseline laboratory contamination and not contamination detected during sample transit.

C.7.4 Representativeness, Comparability, and Sensitivity

Representativeness, comparability, and sensitivity are achieved by using EPA-approved sampling procedures and analytical methodologies. By following the procedures described in the Work Plan (CDM Smith 2012c) for this sampling event and future sampling events, sample analysis should yield results representative of environmental conditions at the time of sampling. Similarly, reasonable comparability of analytical results for this and future

sampling events can be achieved if approved EPA analytical methods and standardized reporting units are employed.

C.7.4.1 Representativeness

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

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

Field sampling accuracy was attained through strict adherence to the approved Master FSP (CDM Smith 2012a) and by using approved standard operating procedures for field data collection. Based on this, the data should represent as near as possible the actual field conditions at the time of sampling.

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

C.7.4.2 Comparability

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

To ensure comparability of data generated for the site, standard sample collection procedures and Department of Toxic Substances Control (DTSC)-approved analytical methods were utilized by CDM Smith. The sample analyses were performed by Test America 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 Subarea 3 samples:

- Method 1613B (Dioxins)
  - One hundred and nine individual analyte results

- Methods 6010C/6020/6020A (Metals)
  - One hundred and forty individual analyte results

- Methods 7471A/7471B (Mercury)
  - Three individual analyte results

- Method 8015B (TPH EFH)
  - Eight individual analyte results

- Method 8082/8082A (PCBs)
  - Four individual analyte results

- Method 8270C SIM (SVOCs)
  - Seventy-one individual analyte results

The following analyses and individual analyte sample results were qualified as estimated "J" due to the sample results being reported as detected below the RL for Subarea 6 samples:

- Method 1613B (Dioxins)
  - One thousand eight hundred and twenty-two individual analyte results

- Methods 6010C/6020/6020A (Metals)
  - Three thousand six hundred and forty-two individual analyte results

- Methods 6850/6860 (Perchlorate)
  - One individual analyte result

- Methods 7471A/7471B (Mercury)
  - Ninety individual analyte results

- Method 8015B (TPH EFH)
  - One hundred and ninety-four individual analyte results

- Method 8015B (TPH GRO)
  - Ten individual analyte results

- Method 8081A/8081B (Pesticides)
  - Eighteen individual analyte results

- Method 8082/8082A (PCBs)
  - Twenty-seven individual analyte results

- Method 8151A (Herbicides)
  - Six individual analyte results

- Method 8270C SIM (SVOCs)
  - One thousand two hundred and sixty-two 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.

For the data validated in the Subareas 3 and 6 TM, RLs for a majority of the sample results were low enough to compare to the RLs stated in the Master FSP (CDM Smith 2012a). RLs

above those stated in the Master FSP (CDM Smith 2012a) will be evaluated on a case by case basis to see if resampling is required.

C.8 Review of Selected Validation Reports

CDM Smith performed a review of 10 percent of the validation reports identified in Table C-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation guidance documents. All validation report results that were reviewed were verified against the laboratory data packages and determined that validation documents were followed as required.

C.9 Data Completeness

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

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

A. $$\%\text{Completeness} = C x \frac{100}{n}$$

Where:

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

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 Master FSP (CDM Smith 2012a), for these sampling events was 90 percent for each analytical test for all project data.

A total of 290 soil samples including the field duplicates were collected and analyzed. Some locations required only a subsurface sample while other locations required both a surface and a subsurface sample. The number of subsurface samples to be collected at each location was not pre-determined because the total depth of each boring varies depending on the local geology. No subsurface samples were collected at 97 locations due to shallow refusal at less than 2.5 feet bgs, and samples were not collected at eight locations because they are planned to be sampled trenches/test pit as noted in Section 2.7.1 of the Subareas 3 and 6 TM. The completeness goal for the actual number of samples collected compared to the number of samples planned is considered acceptable as a sample was collected from each location

(depending on shallow refusal) and locations for trench samples and near active transformers will be collected during future Phase 3 sampling activities.

The completeness goal achieved for acceptable data was 100 percent for Subarea 3 and 99.99 percent for Subarea 6 for the number of measurements judged to be valid versus the total number of measurements made for all samples analyzed. Tables C-10 and C-11 summarize all results that were estimated or rejected for Phase 3 Subarea 3 and 6 respectively.

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

Sampling deviations from procedures described in the Master FSP (CDM Smith 2012a) are discussed in Section 2.7 of the Subareas 3 and 6 Phase 3 TM. Deviations did not impact DQOs for this sampling event. The data reported are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the Master FSP (CDM Smith 2012a) met appropriate criteria. The completeness goals for both the locations sampled and the number of measurements judged to be valid were met or will be met. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated for project decisions.

C.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 99 percent of the data validated for Subarea 3 and Subarea 6 Phase 3, are suitable for their intended use for site characterization. Sample results that were qualified as estimated are usable for project decisions. Rejected sample results are not suitable for project use. The rejected analyte results do not impact achievement of the overall project objectives. The RLs reported generally met the expected limits proposed by the analytical laboratories in their subcontract agreements with CDM Smith.

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

THIS PAGE INTENTIONALLY LEFT BLANK

Table C-1 Sample Delivery Groups and Validation Levels for Subarea 3 and Subarea 6

Subarea 3 SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
280-36114-1	Level IV	
280-36114-2	Level IV	X
280-36181-1	Level III	
280-36181-2	Level III	
280-37204-1	Level III	
12L152	Level IV	X
Subarea 6 SDGs		
Sample Delivery Group	**Level of Validation Performed**	**CDM Smith Review**
-280-35537-1	Level IV	X
280-35537-2	Level III	X
280-35578-1	Level III	
280-35578-2	Level III	
280-35658-1	Level III	
280-35658-2	Level III	
280-35749-1	Level III	
280-35749-2	Level III	
280-35822-1	Level III	
280-35822-2	Level III	
280-35680-1	Level III	
280-35680-2	Level III	
280-35930-1	Level III	
280-35930-2	Level III	
280-35982-1	Level III	X
280-35982-2	Level III	X
280-36026-1	Level III	
280-36026-2	Level IV	X
280-36112-1	Level III	
280-36112-2	Level III	
280-36180-1	Level III	
280-36180-2	Level IV	
280-36211-1	Level III	
280-36278-1	Level III	
280-36278-2	Level III	
280-36311-1	Level III	
280-36311-2	Level III	
280-36365-1	Level IV	X
280-36365-2	Level III	
280-36428-1	Level III	
280-36428-2	Level III	
280-36452-1	Level III	
280-36452-2	Level III	
280-36535-1	Level III	
280-36535-2	Level III	

Table C-1 Sample Delivery Groups and Validation Levels for Subarea 3 and Subarea 6

Subarea 6 SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
280-36589-1	Level IV	
280-36589-2	Level IV	X
280-36640-1	Level III	
280-36640-2	Level III	
280-36711-1	Level III	
280-36711-2	Level III	
280-36788-1	Level III	
280-36788-2	Level III	
280-36846-1	Level III	
280-36846-2	Level III	
280-36889-1	Level III	
280-36889-2	Level III	
280-36945-1	Level III	
280-36945-2	Level III	
280-37012-1	Level III	
280-37060-1	Level III	
280-37202-1	Level III	
12L046	Level IV	X
12L053	Level III	
12L076	Level IV	
12L093	Level III	
12L106	Level III	
12L126	Level III	X
12L140	Level III	
12L153	Level III	
12L166	Level III	

Table C2 - Subarea 3 - Equipment Rinsate Samples

		Sample Name:	EB-112012		EB1-121912		EB1-121912		EB2-121912		EB2-121912	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/20/2012		12/19/2012		12/19/2012		12/19/2012		12/19/2012	
		Sample Type:	EB		EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L			2.1	U			2.2	U		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	52	U			52	U			56	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	52	U			52	U			56	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	52	U			52	U			56	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	52	U			52	U			56	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	52	U			52	U			56	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	52	U			52	U			56	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	52	U			52	U			56	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	52	U			52	U			56	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	52	U			52	U			56	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	52	U			52	U			56	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	52	U			52	U			56	U
1-Methylnaphthalene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
2,2-Dichlor-Propionic Acid	8151A	µg/L	1.9	U	0.8	U						
2,3,4,6,7,8-HXCDF	1613B	pg/L	52	U			52	U			56	U
2,3,4,7,8-PECDF	1613B	pg/L	52	U			52	U			56	U
2,3,7,8-TCDD	1613B	pg/L	10	U			10	U			11	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	10	U			10	U			11	U
2,4,5-T	8151A	µg/L	0.96	U	0.8	U						
2,4-D	8151A	µg/L	3.8	U	0.8	U						
2,4-DB	8151A	µg/L	3.8	U	0.8	U						
2-Methylnaphthalene	8270C SIM	µg/L	0.0055	J	0.21	U			0.22	U		
4,4'-DDD	8081A	µg/L			0.1	U						
4,4'-DDD	8081B	µg/L	0.05	U								
4,4'-DDE	8081A	µg/L			0.1	U						
4,4'-DDE	8081B	µg/L	0.05	U								
4,4'-DDT	8081A	µg/L			0.1	U						
4,4'-DDT	8081B	µg/L	0.05	U								
Acenaphthene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Acenaphthylene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Aldrin	8081A	µg/L			0.1	U						
Aldrin	8081B	µg/L	0.05	U								
Alpha-Bhc	8081A	µg/L			0.1	U						
Alpha-Bhc	8081B	µg/L	0.05	U								
Aluminum	6010C	mg/L	0.1	U								
Aluminum	6020	mg/L			0.1	U			0.1	U		
Anthracene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Antimony	6020	mg/L			0.001	U			0.001	U		
Antimony	6020A	mg/L	0.002	U								
Aroclor 1016	8082	µg/L			1	U			1.2	U		
Aroclor 1016	8082A	µg/L	0.99	U								
Aroclor 1221	8082	µg/L			1	U			1.2	U		
Aroclor 1221	8082A	µg/L	0.99	U								
Aroclor 1232	8082	µg/L			1	U			1.2	U		
Aroclor 1232	8082A	µg/L	0.99	U								
Aroclor 1242	8082	µg/L			1	U			1.2	U		
Aroclor 1242	8082A	µg/L	0.99	U								
Aroclor 1248	8082	µg/L			1	U			1.2	U		
Aroclor 1248	8082A	µg/L	0.99	U								
Aroclor 1254	8082	µg/L			1	U			1.2	U		
Aroclor 1254	8082A	µg/L	0.99	U								
Aroclor 1260	8082	µg/L			1	U			1.2	U		
Aroclor 1260	8082A	µg/L	0.99	U								
Aroclor 1262	8082	µg/L			1	U			1.2	U		
Aroclor 1262	8082A	µg/L	0.99	U								
Aroclor 1268	8082	µg/L			1	U			1.2	U		
Aroclor 1268	8082A	µg/L	0.99	U								
Aroclor 5432	8082	µg/L			2.1	U			2.4	U		
Aroclor 5432	8082A	µg/L	0.5	U								
Aroclor 5442	8082	µg/L			2.1	U			2.4	U		
Aroclor 5442	8082A	µg/L	0.5	U								
Aroclor 5460	8082	µg/L			2.1	U			2.4	U		
Aroclor 5460	8082A	µg/L	0.5	U								
Arsenic	6020	mg/L			0.001	U			0.001	U		
Arsenic	6020A	mg/L	0.005	U								
Azobenzene	8270C SIM	µg/L			1	U			1.1	U		
BAP TEQ	BAP EQUIVALENCE	µg/L	0.0001	U								
Barium	6020	mg/L			0.00117				0.001	U		
Barium	6020A	mg/L	0.001	U								
Benzo(a)anthracene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Benzo(a)pyrene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Benzo(b)fluoranthene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Benzo(e)pyrene	8270C SIM	µg/L			0.21	U			0.22	U		
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Benzo(k)fluoranthene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Beryllium	6020	mg/L			0.001	U			0.001	U		
Beryllium	6020A	mg/L	0.001	U								
Beta-Bhc	8081A	µg/L			0.1	U						
Beta-Bhc	8081B	µg/L	0.05	U								
Boron	6010C	mg/L	0.0055	J								
Boron	6020	mg/L			0.01	U			0.01	U		
Cadmium	6020	mg/L			0.001	U			0.001	U		
Cadmium	6020A	mg/L	0.001	U								
Calcium	6010C	mg/L	0.2	U								
Calcium	6020	mg/L			0.0315	J			0.0284	J		
Chlordane (Technical)	8081A	µg/L			1	U						
Chlordane (Technical)	8081B	µg/L	0.5	U								
Chromium	6020	mg/L			0.001	U			0.001	U		
Chromium	6020A	mg/L	0.002	U								
Chrysene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Cobalt	6020	mg/L			0.001	U			0.001	U		
Cobalt	6020A	mg/L	0.001	U								
Copper	6020	mg/L			0.000587	J			0.000667	J		
Copper	6020A	mg/L	0.002	U								
Delta-Bhc	8081A	µg/L			0.1	U						
Delta-Bhc	8081B	µg/L	0.05	U								
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Dicamba	8151A	µg/L	1.9	U	0.8	U						
Dichlorprop	8151A	µg/L	3.8	U	0.8	U						
Dieldrin	8081A	µg/L			0.1	U						
Dieldrin	8081B	µg/L	0.05	U								
Dinitrobutyl Phenol	8151A	µg/L	0.96	U	0.8	U						
EFH (C12-C14)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
EFH (C15-C20)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
EFH (C21-C30)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
EFH (C30-C40)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
EFH (C8-C11)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
Endosulfan I	8081A	µg/L			0.1	U						
Endosulfan I	8081B	µg/L	0.05	U								
Endosulfan II	8081A	µg/L			0.1	U						
Endosulfan II	8081B	µg/L	0.05	U								
Endosulfan Sulfate	8081A	µg/L			0.1	U						
Endosulfan Sulfate	8081B	µg/L	0.05	U								
Endrin	8081A	µg/L			0.1	U						
Endrin	8081B	µg/L	0.05	U								
Endrin Aldehyde	8081A	µg/L			0.1	U						
Endrin Aldehyde	8081B	µg/L	0.05	U								
Endrin Ketone	8081A	µg/L			0.1	U						
Endrin Ketone	8081B	µg/L	0.05	U								
Fluoranthene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Fluorene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Gamma-Bhc (Lindane)	8081A	µg/L			0.1	U						
Gamma-Bhc (Lindane)	8081B	µg/L	0.05	U								
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L	14	J								
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L			50	U						
Heptachlor	8081A	µg/L			0.1	U						
Heptachlor	8081B	µg/L	0.05	U								
Heptachlor Epoxide	8081A	µg/L			0.1	U						
Heptachlor Epoxide	8081B	µg/L	0.05	U								
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Iron	6010C	mg/L	0.1	U								
Iron	6020	mg/L			0.1	U			0.1	U		

		Sample Name:	EB-112012		EB1-121912		EB1-121912		EB2-121912		EB2-121912	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/20/2012		12/19/2012		12/19/2012		12/19/2012		12/19/2012	
		Sample Type:	EB		EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Lead	6020	mg/L			0.001	U			0.001	U		
Lead	6020A	mg/L	0.001	U								
Lithium	6010C	mg/L	0.01	U								
Lithium	6020	mg/L			0.002	U			0.002	U		
Magnesium	6010C	mg/L	0.2	U								
Magnesium	6020	mg/L			0.1	U			0.1	U		
Manganese	6010C	mg/L	0.00051	J								
Manganese	6020	mg/L			0.001	U			0.001	U		
MCPA	8151A	µg/L	380	U	100	U						
MCPP	8151A	µg/L			100	U						
Mecoprop	8151A	µg/L	380	U								
Mercury	7470A	mg/L	0.0002	U	0.0005	U			0.0005	U		
Methoxychlor	8081A	µg/L			1	U						
Methoxychlor	8081B	µg/L	0.099	U								
Mirex	8081A	µg/L			0.1	U						
Mirex	8081B	µg/L	0.05	U								
Molybdenum	6020	mg/L			0.002	U			0.002	U		
Molybdenum	6020A	mg/L	0.002	U								
Naphthalene	8270C SIM	µg/L	0.091	J	0.18	J			0.17	J		
Nickel	6020	mg/L			0.00021	J			0.00023	J		
Nickel	6020A	mg/L	0.002	U								
N-Nitrosodimethylamine	8270C SIM	µg/L	0.4	U	1	U			1.1	U		
N-Nitrosodimethylamine	8270C SIM	ug/l	0.4	U	1	U			1.1	U		
OCDD	1613B	pg/L	100	U			100	U			110	U
OCDF	1613B	pg/L	100	U			100	U			110	U
Perchlorate	6850	µg/L			0.2	U			0.2	U		
pH	9040C	pH	6.3		5.35				5.45			
Phenanthrene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Phosphorus	6010C	mg/L	3	U								
Phosphorus	6020	mg/L			0.05	U			0.05	U		
Potassium	6010C	mg/L	3	U								
Potassium	6020	mg/L			0.1	U			0.1	U		
Pyrene	8270C SIM	µg/L	0.1	U	0.21	U			0.22	U		
Selenium	6020	mg/L			0.001	U			0.001	U		
Selenium	6020A	mg/L	0.005	U								
Silver	6020	mg/L			0.001	U			0.001	U		
Silver	6020A	mg/L	0.005	U								
Silvex (2,4,5-TP)	8151A	µg/L	0.96	U	0.8	U						
Sodium	6010C	mg/L	1	U								
Sodium	6020	mg/L			0.0601	J			0.1	U		
Strontium	6010C	mg/L	0.01	U								
Strontium	6020	mg/L			0.002	U			0.002	U		
Technical Toxaphene	8081A	µg/L			2.1	U						
Technical Toxaphene	8081B	µg/L	2	U								
Temperature	9040C	deg C	20									
Thallium	6020	mg/L			0.001	U			0.001	U		
Thallium	6020A	mg/L	0.001	U								
Tin	6010C	mg/L	0.1	U								
Tin	6020	mg/L			0.001	U			0.001	U		
Titanium	6010C	mg/L	0.01	U								
Titanium	6020	mg/L			0.002	U			0.002	U		
Total EFH (C8-C40)	8015B EFH	mg/L	0.25	U	0.1	U			0.1	U		
Vanadium	6020	mg/L			0.001	U			0.001	U		
Vanadium	6020A	mg/L	0.005	U								
Zinc	6020	mg/L			0.02	U			0.02	U		
Zinc	6020A	mg/L	0.01	U								
Zirconium	6010C	mg/L	0.015	U								
Zirconium	6020	mg/L			0.005	U			0.005	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

		Sample Name:	EB-110812		EB-111512		EB-111612		EB-112012	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/08/2012		11/15/2012		11/16/2012		11/20/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		Test America		Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L								
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	54	U	51	U			52	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	54	U	51	U			52	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	54	U	51	U			52	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	54	U	51	U			52	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	54	U	51	U			52	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	54	U	0.24	J			52	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	54	U	51	U			52	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	54	U	51	U			52	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	54	U	51	U			52	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	54	U	51	U			52	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	54	U	51	U			52	U
1-Methylnaphthalene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	2.1	U			2.0	U	1.9	U
2,3,4,6,7,8-HXCDF	1613B	pg/L	54	U	51	U			52	U
2,3,4,7,8-PECDF	1613B	pg/L	54	U	51	U			52	U
2,3,7,8-TCDD	1613B	pg/L	11	U	0.12	J			10	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	11	U	10	U			10	U
2,4,5-T	8151A	µg/L	1.1	U			0.98	U	0.96	U
2,4-D	8151A	µg/L	4.3	U			3.9	U	3.8	U
2,4-DB	8151A	µg/L	4.3	U			3.9	U	3.8	U
2-Methylnaphthalene	8270C SIM	µg/L	0.10	U	0.0078	J			0.0055	J
4,4'-DDD	8081A	µg/L								
4,4'-DDD	8081B	µg/L	0.051	U			0.052	U	0.050	U
4,4'-DDE	8081A	µg/L								
4,4'-DDE	8081B	µg/L	0.051	U			0.052	U	0.050	U
4,4'-DDT	8081A	µg/L								
4,4'-DDT	8081B	µg/L	0.051	U			0.052	U	0.050	U
Acenaphthene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Acenaphthylene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Aldrin	8081A	µg/L								
Aldrin	8081B	µg/L	0.051	U			0.052	U	0.050	U
Alpha-Bhc	8081A	µg/L								
Alpha-Bhc	8081B	µg/L	0.051	U			0.052	U	0.050	U
Aluminum	6010C	mg/L	0.10	U	0.10	U			0.10	U
Aluminum	6020	mg/L								
Anthracene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Antimony	6020	mg/L								
Antimony	6020A	mg/L	0.0020	U	0.0020	U			0.0020	U
Aroclor 1016	8082	µg/L								
Aroclor 1016	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1221	8082	µg/L								
Aroclor 1221	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1232	8082	µg/L								
Aroclor 1232	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1242	8082	µg/L								
Aroclor 1242	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1248	8082	µg/L								
Aroclor 1248	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1254	8082	µg/L								
Aroclor 1254	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1260	8082	µg/L								
Aroclor 1260	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1262	8082	µg/L								
Aroclor 1262	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 1268	8082	µg/L								
Aroclor 1268	8082A	µg/L	1.0	U	1.0	U			0.99	U
Aroclor 5432	8082	µg/L								
Aroclor 5432	8082A	µg/L	0.51	U	0.50	U			0.50	U
Aroclor 5442	8082	µg/L								
Aroclor 5442	8082A	µg/L	0.51	U	0.50	U			0.50	U
Aroclor 5460	8082	µg/L								
Aroclor 5460	8082A	µg/L	0.51	U	0.50	U			0.50	U
Arsenic	6020	mg/L								
Arsenic	6020A	mg/L	0.0050	U	0.0050	U			0.0050	U
Azobenzene	8270C SIM	µg/L								
BAP TEQ	BAP EQUIVALENCE	µg/L	0.00010	U	0.00010	U			0.00010	U
Barium	6020	mg/L								
Barium	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Benzo(a)anthracene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Benzo(a)pyrene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Benzo(b)fluoranthene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Benzo(e)pyrene	8270C SIM	µg/L								
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Benzo(k)fluoranthene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Beryllium	6020	mg/L								
Beryllium	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Beta-Bhc	8081A	µg/L								
Beta-Bhc	8081B	µg/L	0.051	U			0.052	U	0.050	U
Boron	6010C	mg/L	0.0095	J	0.10	U			0.0055	J
Boron	6020	mg/L								
Cadmium	6020	mg/L								
Cadmium	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Calcium	6010C	mg/L	0.20	U	0.20	U			0.20	U
Calcium	6020	mg/L								
Chlordane (Technical)	8081A	µg/L								
Chlordane (Technical)	8081B	µg/L	0.51	U			0.52	U	0.50	U
Chromium	6020	mg/L								
Chromium	6020A	mg/L	0.0020	U	0.0020	U			0.0020	U
Chromium (Hexavalent Compounds)	7199	µg/L								
Chrysene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Cobalt	6020	mg/L								
Cobalt	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Copper	6020	mg/L								
Copper	6020A	mg/L	0.0020	U	0.0020	U			0.0020	U
Delta-Bhc	8081A	µg/L								
Delta-Bhc	8081B	µg/L	0.051	U			0.052	U	0.050	U
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Dicamba	8151A	µg/L	2.1	U			2.0	U	1.9	U
Dichlorprop	8151A	µg/L	4.3	U			3.9	U	3.8	U
Dieldrin	8081A	µg/L								
Dieldrin	8081B	µg/L	0.051	U			0.052	U	0.050	U
Dinitrobutyl Phenol	8151A	µg/L	1.3				2.4		0.96	U
EFH (C12-C14)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
EFH (C15-C20)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
EFH (C21-C30)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
EFH (C30-C40)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
EFH (C8-C11)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
Endosulfan I	8081A	µg/L								
Endosulfan I	8081B	µg/L	0.051	U			0.052	U	0.050	U
Endosulfan II	8081A	µg/L								
Endosulfan II	8081B	µg/L	0.051	U			0.052	U	0.050	U

		Sample Name:	EB-110812		EB-111512		EB-111612		EB-112012	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/08/2012		11/15/2012		11/16/2012		11/20/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		Test America		Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L								
Endosulfan Sulfate	8081B	µg/L	0.051	U			0.052	U	0.050	U
Endrin	8081A	µg/L								
Endrin	8081B	µg/L	0.051	U			0.052	U	0.050	U
Endrin Aldehyde	8081A	µg/L								
Endrin Aldehyde	8081B	µg/L	0.051	U			0.052	U	0.050	U
Endrin Ketone	8081A	µg/L								
Endrin Ketone	8081B	µg/L	0.051	U			0.052	U	0.050	U
Fluoranthene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Fluorene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Formaldehyde	8315A	µg/L								
Gamma-Bhc (Lindane)	8081A	µg/L								
Gamma-Bhc (Lindane)	8081B	µg/L	0.051	U			0.052	U	0.050	U
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L			10	J			14	J
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L								
Heptachlor	8081A	µg/L								
Heptachlor	8081B	µg/L	0.051	U			0.052	U	0.050	U
Heptachlor Epoxide	8081A	µg/L								
Heptachlor Epoxide	8081B	µg/L	0.051	U			0.052	U	0.050	U
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.10	U	0.10	U			0.10	U
Iron	6010C	mg/L	0.10	U	0.10	U			0.10	U
Iron	6020	mg/L								
Lead	6020	mg/L								
Lead	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Lithium	6010C	mg/L	0.010	U	0.010	U			0.010	U
Lithium	6020	mg/L								
Magnesium	6010C	mg/L	0.015	J	0.20	U			0.20	U
Magnesium	6020	mg/L								
Manganese	6010C	mg/L	0.010	U	0.010	U			0.00051	J
Manganese	6020	mg/L								
MCPA	8151A	µg/L	430	U			390	U	380	U
MCPP	8151A	µg/L	430	U			390	U	380	U
Mercury	7470A	mg/L	0.00020	U	0.00020	U			0.00020	U
Methoxychlor	8081A	µg/L								
Methoxychlor	8081B	µg/L	0.10	U			0.10	U	0.099	U
Mirex	8081A	µg/L								
Mirex	8081B	µg/L	0.051	U			0.052	U	0.050	U
Molybdenum	6020	mg/L								
Molybdenum	6020A	mg/L	0.0020	U	0.0020	U			0.0020	U
Naphthalene	8270C SIM	µg/L	0.028	J	0.10	U			0.091	J
Nickel	6020	mg/L								
Nickel	6020A	mg/L	0.0020	U	0.0020	U			0.0020	U
N-Nitrosodimethylamine	8270C SIM	µg/L	0.41	U	0.40	U			0.40	U
N-Nitrosodimethylamine	8270C SIM	ug/l	0.41	U	0.40	U			0.40	U
OCDD	1613B	pg/L	110	U	100	U			100	U
OCDF	1613B	pg/L	110	U	100	U			100	U
Perchlorate	6850	µg/L								
Perchlorate	6860	µg/L								
pH	9040C	pH	5.85		7.30				6.30	
Phenanthrene	8270C SIM	µg/L	0.012	J	0.10	U			0.10	U
Phosphorus	6010C	mg/L	3.0	U	3.0	U			3.0	U
Phosphorus	6020	mg/L								
Potassium	6010C	mg/L	3.0	U	3.0	U			3.0	U
Potassium	6020	mg/L								
Pyrene	8270C SIM	µg/L	0.10	U	0.10	UJ			0.10	U
Selenium	6020	mg/L								
Selenium	6020A	mg/L	0.0050	U	0.0050	U			0.0050	U
Silver	6020	mg/L								
Silver	6020A	mg/L	0.0050	U	0.0050	U			0.0050	U
Silvex (2,4,5-TP)	8151A	µg/L	1.1	U			0.98	U	0.96	U
Sodium	6010C	mg/L	1.0	U	1.0	U			1.0	U
Sodium	6020	mg/L								
Strontium	6010C	mg/L	0.00037	J	0.010	U			0.010	U
Strontium	6020	mg/L								
Technical Toxaphene	8081A	µg/L								
Technical Toxaphene	8081B	µg/L	2.0	U			2.1	U	2.0	U
Temperature	9040C	deg C	20.0		20.0				20.0	
Thallium	6020	mg/L								
Thallium	6020A	mg/L	0.0010	U	0.0010	U			0.0010	U
Tin	6010C	mg/L	0.10	U	0.10	U			0.10	U
Tin	6020	mg/L								
Titanium	6010C	mg/L	0.0020	J	0.010	U			0.010	U
Titanium	6020	mg/L								
Total EFH (C8-C40)	8015B EFH	mg/L	0.24	U	0.24	U			0.25	U
Vanadium	6020	mg/L								
Vanadium	6020A	mg/L	0.0050	U	0.0050	U			0.0050	U
Zinc	6020	mg/L								
Zinc	6020A	mg/L	0.010	U	0.010	U			0.010	U
Zirconium	6010C	mg/L	0.015	U	0.015	U			0.015	U
Zirconium	6020	mg/L								

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

		Sample Name:	EB1-112912		EB2-112912		EB-120512		EB1-120612	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/29/2012		11/29/2012		12/05/2012		12/06/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		Test America		Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L								
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	51	U	0.41	J	47	U	48	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	51	U	54	U	47	U	48	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	51	U	54	U	47	U	48	U
1-Methylnaphthalene	8270C SIM	µg/L	0.011	J	0.012	J	0.0087	J	0.012	J
2,2-Dichlor-Propionic Acid	8151A	µg/L	2.0	U	2.1	U	2.1	U		
2,3,4,6,7,8-HXCDF	1613B	pg/L	51	UJ	54	U	47	U	48	U
2,3,4,7,8-PECDF	1613B	pg/L	51	U	54	U	47	U	48	U
2,3,7,8-TCDD	1613B	pg/L	10	U	11	U	9.5	U	9.6	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	10	U	11	U	9.5	U	9.6	U
2,4,5-T	8151A	µg/L	1.0	U	1.0	U	1.1	U		
2,4-D	8151A	µg/L	4.1	U	4.1	U	4.3	U		
2,4-DB	8151A	µg/L	4.1	U	4.1	U	4.3	U		
2-Methylnaphthalene	8270C SIM	µg/L	0.013	J	0.012	J	0.0081	J	0.11	U
4,4'-DDD	8081A	µg/L								
4,4'-DDD	8081B	µg/L	0.052	U	0.053	U	0.054	U		
4,4'-DDE	8081A	µg/L								
4,4'-DDE	8081B	µg/L	0.052	U	0.053	U	0.054	U		
4,4'-DDT	8081A	µg/L								
4,4'-DDT	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Acenaphthene	8270C SIM	µg/L	0.10	U	0.11	U	0.016	J	0.018	J
Acenaphthylene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Aldrin	8081A	µg/L								
Aldrin	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Alpha-Bhc	8081A	µg/L								
Alpha-Bhc	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Aluminum	6010C	mg/L	0.10	U	0.10	U	0.10	U	0.10	U
Aluminum	6020	mg/L								
Anthracene	8270C SIM	µg/L	0.023	J	0.022	J	0.10	U	0.11	U
Antimony	6020	mg/L								
Antimony	6020A	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Aroclor 1016	8082	µg/L								
Aroclor 1016	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1221	8082	µg/L								
Aroclor 1221	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1232	8082	µg/L								
Aroclor 1232	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1242	8082	µg/L								
Aroclor 1242	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1248	8082	µg/L								
Aroclor 1248	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1254	8082	µg/L								
Aroclor 1254	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1260	8082	µg/L								
Aroclor 1260	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1262	8082	µg/L								
Aroclor 1262	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 1268	8082	µg/L								
Aroclor 1268	8082A	µg/L	1.0	U	1.1	U	1.1	U	1.1	U
Aroclor 5432	8082	µg/L								
Aroclor 5432	8082A	µg/L	0.52	U	0.53	U	0.54	U	0.57	U
Aroclor 5442	8082	µg/L								
Aroclor 5442	8082A	µg/L	0.52	U	0.53	U	0.54	U	0.57	U
Aroclor 5460	8082	µg/L								
Aroclor 5460	8082A	µg/L	0.52	U	0.53	U	0.54	U	0.57	U
Arsenic	6020	mg/L								
Arsenic	6020A	mg/L	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Azobenzene	8270C SIM	µg/L								
BAP TEQ	BAP EQUIVALENCE	µg/L	0.00093		0.00010	U	0.00010	U	0.00010	U
Barium	6020	mg/L								
Barium	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Benzo(a)anthracene	8270C SIM	µg/L	0.0047	J	0.11	U	0.10	U	0.11	U
Benzo(a)pyrene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Benzo(b)fluoranthene	8270C SIM	µg/L	0.0046	J	0.11	U	0.10	U	0.11	U
Benzo(e)pyrene	8270C SIM	µg/L								
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Benzo(k)fluoranthene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Beryllium	6020	mg/L								
Beryllium	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Beta-Bhc	8081A	µg/L								
Beta-Bhc	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Boron	6010C	mg/L	0.10	U	0.10	U	0.0059	J	0.0044	J
Boron	6020	mg/L								
Cadmium	6020	mg/L								
Cadmium	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Calcium	6010C	mg/L	0.20	U	0.037	J	0.20	U	0.20	U
Calcium	6020	mg/L								
Chlordane (Technical)	8081A	µg/L								
Chlordane (Technical)	8081B	µg/L	0.52	U	0.53	U	0.54	U		
Chromium	6020	mg/L								
Chromium	6020A	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Chromium (Hexavalent Compounds)	7199	µg/L							2.0	U
Chrysene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Cobalt	6020	mg/L								
Cobalt	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Copper	6020	mg/L								
Copper	6020A	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Delta-Bhc	8081A	µg/L								
Delta-Bhc	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Dicamba	8151A	µg/L	2.0	U	2.1	U	2.1	U		
Dichlorprop	8151A	µg/L	4.1	U	4.1	U	4.3	U		
Dieldrin	8081A	µg/L								
Dieldrin	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Dinitrobutyl Phenol	8151A	µg/L	1.0	U	1.9		1.1	U		
EFH (C12-C14)	8015B EFH	mg/L	0.26	U	0.28	U	0.28	U	0.26	U
EFH (C15-C20)	8015B EFH	mg/L	0.26	U	0.28	U	0.28	U	0.26	U
EFH (C21-C30)	8015B EFH	mg/L	0.26	U	0.28	U	0.28	U	0.26	U
EFH (C30-C40)	8015B EFH	mg/L	0.26	U	0.28	U	0.28	U	0.26	U
EFH (C8-C11)	8015B EFH	mg/L	0.26	U	0.28	U	0.28	U	0.26	U
Endosulfan I	8081A	µg/L								
Endosulfan I	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Endosulfan II	8081A	µg/L								
Endosulfan II	8081B	µg/L	0.052	U	0.053	U	0.054	U		

		Sample Name:	EB1-112912		EB2-112912		EB-120512		EB1-120612	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	11/29/2012		11/29/2012		12/05/2012		12/06/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		Test America		Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L								
Endosulfan Sulfate	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Endrin	8081A	µg/L								
Endrin	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Endrin Aldehyde	8081A	µg/L								
Endrin Aldehyde	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Endrin Ketone	8081A	µg/L								
Endrin Ketone	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Fluoranthene	8270C SIM	µg/L	0.0064	J	0.11	U	0.10	U	0.11	U
Fluorene	8270C SIM	µg/L	0.020	J	0.020	J	0.021	J	0.027	J
Formaldehyde	8315A	µg/L							50	U
Gamma-Bhc (Lindane)	8081A	µg/L								
Gamma-Bhc (Lindane)	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L	25	U			25	U	25	U
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L								
Heptachlor	8081A	µg/L								
Heptachlor	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Heptachlor Epoxide	8081A	µg/L								
Heptachlor Epoxide	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Iron	6010C	mg/L	0.88		0.67		0.10	U	0.10	U
Iron	6020	mg/L								
Lead	6020	mg/L								
Lead	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Lithium	6010C	mg/L	0.010	U	0.010	U	0.010	U	0.010	U
Lithium	6020	mg/L								
Magnesium	6010C	mg/L	0.019	J	0.20	U	0.012	J	0.20	U
Magnesium	6020	mg/L								
Manganese	6010C	mg/L	0.010	U	0.010	U	0.00051	J	0.00038	J
Manganese	6020	mg/L								
MCPA	8151A	µg/L	410	U	410	U	430	U		
MCPP	8151A	µg/L	410	U	410	U	430	U		
Mercury	7470A	mg/L	0.00020	U	0.00020	U	0.00020	U	0.00020	U
Methoxychlor	8081A	µg/L								
Methoxychlor	8081B	µg/L	0.10	U	0.11	U	0.11	U		
Mirex	8081A	µg/L								
Mirex	8081B	µg/L	0.052	U	0.053	U	0.054	U		
Molybdenum	6020	mg/L								
Molybdenum	6020A	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Naphthalene	8270C SIM	µg/L	0.056	J	0.056	J	0.046	J	0.071	J
Nickel	6020	mg/L								
Nickel	6020A	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
N-Nitrosodimethylamine	8270C SIM	µg/L	0.41	U	0.43	U	0.42	U	0.43	U
N-Nitrosodimethylamine	8270C SIM	ug/l	0.41	U	0.43	U	0.42	U	0.43	U
OCDD	1613B	pg/L	100	U	110	U	95	U	96	U
OCDF	1613B	pg/L	100	U	110	U	95	U	96	U
Perchlorate	6850	µg/L								
Perchlorate	6860	µg/L	0.050	U	0.050	U				
pH	9040C	pH	7.76		6.49		5.74		5.70	
Phenanthrene	8270C SIM	µg/L	0.024	J	0.022	J	0.10	U	0.11	U
Phosphorus	6010C	mg/L	3.0	U	3.0	U	3.0	U	3.0	U
Phosphorus	6020	mg/L								
Potassium	6010C	mg/L	3.0	U	3.0	U	3.0	U	3.0	U
Potassium	6020	mg/L								
Pyrene	8270C SIM	µg/L	0.10	U	0.11	U	0.10	U	0.11	U
Selenium	6020	mg/L								
Selenium	6020A	mg/L	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Silver	6020	mg/L								
Silver	6020A	mg/L	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Silvex (2,4,5-TP)	8151A	µg/L	1.0	U	1.0	U	1.1	U		
Sodium	6010C	mg/L	1.0	U	1.0	U	1.0	U	1.0	U
Sodium	6020	mg/L								
Strontium	6010C	mg/L	0.010	U	0.010	U	0.010	U	0.010	U
Strontium	6020	mg/L								
Technical Toxaphene	8081A	µg/L								
Technical Toxaphene	8081B	µg/L	2.1	U	2.1	U	2.1	U		
Temperature	9040C	deg C	20.0		20.0		20.0		20.0	
Thallium	6020	mg/L								
Thallium	6020A	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Tin	6010C	mg/L	0.10	U	0.10	U	0.10	U	0.10	U
Tin	6020	mg/L								
Titanium	6010C	mg/L	0.010	U	0.010	U	0.010	U	0.010	U
Titanium	6020	mg/L								
Total EFH (C8-C40)	8015B EFH	mg/L	0.12	J	0.11	J	0.28	U	0.11	J
Vanadium	6020	mg/L								
Vanadium	6020A	mg/L	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Zinc	6020	mg/L								
Zinc	6020A	mg/L	0.010	U	0.010	U	0.010	U	0.010	U
Zirconium	6010C	mg/L	0.015	U	0.015	U	0.015	U	0.015	U
Zirconium	6020	mg/L								

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

		Sample Name:	EB2-120612		EB1-120712	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/06/2012		12/07/2012	
		Sample Type:	EB		EB	
		Lab:	Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L				
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	48	U		
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	48	U		
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	48	U		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	48	U		
1,2,3,4,7,8-HXCDF	1613B	pg/L	48	U		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	48	U		
1,2,3,6,7,8-HXCDF	1613B	pg/L	48	U		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	48	U		
1,2,3,7,8,9-HXCDF	1613B	pg/L	48	U		
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	48	U		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	48	U		
1-Methylnaphthalene	8270C SIM	µg/L	0.011	J		
2,2-Dichlor-Propionic Acid	8151A	µg/L				
2,3,4,6,7,8-HXCDF	1613B	pg/L	48	U		
2,3,4,7,8-PECDF	1613B	pg/L	48	U		
2,3,7,8-TCDD	1613B	pg/L	9.5	U		
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	9.5	U		
2,4,5-T	8151A	µg/L				
2,4-D	8151A	µg/L				
2,4-DB	8151A	µg/L				
2-Methylnaphthalene	8270C SIM	µg/L	0.11	U		
4,4'-DDD	8081A	µg/L				
4,4'-DDD	8081B	µg/L				
4,4'-DDE	8081A	µg/L				
4,4'-DDE	8081B	µg/L				
4,4'-DDT	8081A	µg/L				
4,4'-DDT	8081B	µg/L				
Acenaphthene	8270C SIM	µg/L	0.017	J		
Acenaphthylene	8270C SIM	µg/L	0.11	U		
Aldrin	8081A	µg/L				
Aldrin	8081B	µg/L				
Alpha-Bhc	8081A	µg/L				
Alpha-Bhc	8081B	µg/L				
Aluminum	6010C	mg/L	0.10	U		
Aluminum	6020	mg/L				
Anthracene	8270C SIM	µg/L	0.11	U		
Antimony	6020	mg/L				
Antimony	6020A	mg/L	0.0020	U		
Aroclor 1016	8082	µg/L				
Aroclor 1016	8082A	µg/L	1.0	U		
Aroclor 1221	8082	µg/L				
Aroclor 1221	8082A	µg/L	1.0	U		
Aroclor 1232	8082	µg/L				
Aroclor 1232	8082A	µg/L	1.0	U		
Aroclor 1242	8082	µg/L				
Aroclor 1242	8082A	µg/L	1.0	U		
Aroclor 1248	8082	µg/L				
Aroclor 1248	8082A	µg/L	1.0	U		
Aroclor 1254	8082	µg/L				
Aroclor 1254	8082A	µg/L	1.0	U		
Aroclor 1260	8082	µg/L				
Aroclor 1260	8082A	µg/L	1.0	U		
Aroclor 1262	8082	µg/L				
Aroclor 1262	8082A	µg/L	1.0	U		
Aroclor 1268	8082	µg/L				
Aroclor 1268	8082A	µg/L	1.0	U		
Aroclor 5432	8082	µg/L				
Aroclor 5432	8082A	µg/L	0.52	U		
Aroclor 5442	8082	µg/L				
Aroclor 5442	8082A	µg/L	0.52	U		
Aroclor 5460	8082	µg/L				
Aroclor 5460	8082A	µg/L	0.52	U		
Arsenic	6020	mg/L				
Arsenic	6020A	mg/L	0.0050	U		
Azobenzene	8270C SIM	µg/L				
BAP TEQ	BAP EQUIVALENCE	µg/L	0.0000038	J		
Barium	6020	mg/L				
Barium	6020A	mg/L	0.0010	U		
Benzo(a)anthracene	8270C SIM	µg/L	0.11	U		
Benzo(a)pyrene	8270C SIM	µg/L	0.11	U		
Benzo(b)fluoranthene	8270C SIM	µg/L	0.11	U		
Benzo(e)pyrene	8270C SIM	µg/L				
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.11	U		
Benzo(k)fluoranthene	8270C SIM	µg/L	0.11	U		
Beryllium	6020	mg/L				
Beryllium	6020A	mg/L	0.0010	U		
Beta-Bhc	8081A	µg/L				
Beta-Bhc	8081B	µg/L				
Boron	6010C	mg/L	0.10	U		
Boron	6020	mg/L				
Cadmium	6020	mg/L				
Cadmium	6020A	mg/L	0.0010	U		
Calcium	6010C	mg/L	0.20	U		
Calcium	6020	mg/L				
Chlordane (Technical)	8081A	µg/L				
Chlordane (Technical)	8081B	µg/L				
Chromium	6020	mg/L				
Chromium	6020A	mg/L	0.0020	U		
Chromium (Hexavalent Compounds)	7199	µg/L	2.0	U		
Chrysene	8270C SIM	µg/L	0.11	U		
Cobalt	6020	mg/L				
Cobalt	6020A	mg/L	0.0010	U		
Copper	6020	mg/L				
Copper	6020A	mg/L	0.0020	U		
Delta-Bhc	8081A	µg/L				
Delta-Bhc	8081B	µg/L				
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.11	U		
Dicamba	8151A	µg/L				
Dichlorprop	8151A	µg/L				
Dieldrin	8081A	µg/L				
Dieldrin	8081B	µg/L				
Dinitrobutyl Phenol	8151A	µg/L				
EFH (C12-C14)	8015B EFH	mg/L	0.27	U		
EFH (C15-C20)	8015B EFH	mg/L	0.27	U		
EFH (C21-C30)	8015B EFH	mg/L	0.27	U		
EFH (C30-C40)	8015B EFH	mg/L	0.27	U		
EFH (C8-C11)	8015B EFH	mg/L	0.27	U		
Endosulfan I	8081A	µg/L				
Endosulfan I	8081B	µg/L				
Endosulfan II	8081A	µg/L				
Endosulfan II	8081B	µg/L				

		Sample Name:	EB2-120612		EB1-120712	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/06/2012		12/07/2012	
		Sample Type:	EB		EB	
		Lab:	Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L				
Endosulfan Sulfate	8081B	µg/L				
Endrin	8081A	µg/L				
Endrin	8081B	µg/L				
Endrin Aldehyde	8081A	µg/L				
Endrin Aldehyde	8081B	µg/L				
Endrin Ketone	8081A	µg/L				
Endrin Ketone	8081B	µg/L				
Fluoranthene	8270C SIM	µg/L	0.11	U		
Fluorene	8270C SIM	µg/L	0.022	J		
Formaldehyde	8315A	µg/L	50	U		
Gamma-Bhc (Lindane)	8081A	µg/L				
Gamma-Bhc (Lindane)	8081B	µg/L				
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L				
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L				
Heptachlor	8081A	µg/L				
Heptachlor	8081B	µg/L				
Heptachlor Epoxide	8081A	µg/L				
Heptachlor Epoxide	8081B	µg/L				
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.11	U		
Iron	6010C	mg/L	0.10	U		
Iron	6020	mg/L				
Lead	6020	mg/L				
Lead	6020A	mg/L	0.0010	U		
Lithium	6010C	mg/L	0.010	U		
Lithium	6020	mg/L				
Magnesium	6010C	mg/L	0.20	U		
Magnesium	6020	mg/L				
Manganese	6010C	mg/L	0.010	U		
Manganese	6020	mg/L				
MCPA	8151A	µg/L				
MCPP	8151A	µg/L				
Mercury	7470A	mg/L	0.00020	U		
Methoxychlor	8081A	µg/L				
Methoxychlor	8081B	µg/L				
Mirex	8081A	µg/L				
Mirex	8081B	µg/L				
Molybdenum	6020	mg/L				
Molybdenum	6020A	mg/L	0.0020	U		
Naphthalene	8270C SIM	µg/L	0.061	J		
Nickel	6020	mg/L				
Nickel	6020A	mg/L	0.0020	U		
N-Nitrosodimethylamine	8270C SIM	µg/L	0.43	U		
N-Nitrosodimethylamine	8270C SIM	ug/l	0.43	U		
OCDD	1613B	pg/L	95	U		
OCDF	1613B	pg/L	95	U		
Perchlorate	6850	µg/L				
Perchlorate	6860	µg/L			0.050	U
pH	9040C	pH	5.44			
Phenanthrene	8270C SIM	µg/L	0.11	U		
Phosphorus	6010C	mg/L	3.0	U		
Phosphorus	6020	mg/L				
Potassium	6010C	mg/L	3.0	U		
Potassium	6020	mg/L				
Pyrene	8270C SIM	µg/L	0.11	U		
Selenium	6020	mg/L				
Selenium	6020A	mg/L	0.0050	U		
Silver	6020	mg/L				
Silver	6020A	mg/L	0.0050	U		
Silvex (2,4,5-TP)	8151A	µg/L				
Sodium	6010C	mg/L	1.0	U		
Sodium	6020	mg/L				
Strontium	6010C	mg/L	0.010	U		
Strontium	6020	mg/L				
Technical Toxaphene	8081A	µg/L				
Technical Toxaphene	8081B	µg/L				
Temperature	9040C	deg C	20.0			
Thallium	6020	mg/L				
Thallium	6020A	mg/L	0.0010	U		
Tin	6010C	mg/L	0.10	U		
Tin	6020	mg/L				
Titanium	6010C	mg/L	0.010	U		
Titanium	6020	mg/L				
Total EFH (C8-C40)	8015B EFH	mg/L	0.27	U		
Vanadium	6020	mg/L				
Vanadium	6020A	mg/L	0.0050	U		
Zinc	6020	mg/L				
Zinc	6020A	mg/L	0.010	U		
Zirconium	6010C	mg/L	0.015	U		
Zirconium	6020	mg/L				

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

		Sample Name:	EB2-120712		EB-121212		EB-121212		EB1-121312	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/07/2012		12/12/2012		12/12/2012		12/13/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L			2.0	U			2.0	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L					50	U		
1,2,3,4,6,7,8-HPCDF	1613B	pg/L					50	U		
1,2,3,4,7,8,9-HPCDF	1613B	pg/L					50	U		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					50	U		
1,2,3,4,7,8-HXCDF	1613B	pg/L					50	U		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					50	U		
1,2,3,6,7,8-HXCDF	1613B	pg/L					50	U		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					50	U		
1,2,3,7,8,9-HXCDF	1613B	pg/L					50	U		
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L					50	U		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L					50	U		
1-Methylnaphthalene	8270C SIM	µg/L			0.20	U			0.20	U
2,2-Dichlor-Propionic Acid	8151A	µg/L							0.80	U
2,3,4,6,7,8-HXCDF	1613B	pg/L					50	U		
2,3,4,7,8-PECDF	1613B	pg/L					50	U		
2,3,7,8-TCDD	1613B	pg/L					10	U		
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L					10	U		
2,4,5-T	8151A	µg/L							0.80	U
2,4-D	8151A	µg/L							0.80	U
2,4-DB	8151A	µg/L							0.80	U
2-Methylnaphthalene	8270C SIM	µg/L			0.20	U			0.20	U
4,4'-DDD	8081A	µg/L							0.10	U
4,4'-DDD	8081B	µg/L								
4,4'-DDE	8081A	µg/L							0.10	U
4,4'-DDE	8081B	µg/L								
4,4'-DDT	8081A	µg/L							0.10	U
4,4'-DDT	8081B	µg/L								
Acenaphthene	8270C SIM	µg/L			0.20	U			0.20	U
Acenaphthylene	8270C SIM	µg/L			0.20	U			0.20	U
Aldrin	8081A	µg/L							0.10	U
Aldrin	8081B	µg/L								
Alpha-Bhc	8081A	µg/L							0.10	U
Alpha-Bhc	8081B	µg/L								
Aluminum	6010C	mg/L								
Aluminum	6020	mg/L			0.100	U			0.100	U
Anthracene	8270C SIM	µg/L			0.20	U			0.20	U
Antimony	6020	mg/L			0.00100	U			0.00100	U
Antimony	6020A	mg/L								
Aroclor 1016	8082	µg/L			1.0	U			1.0	U
Aroclor 1016	8082A	µg/L								
Aroclor 1221	8082	µg/L			1.0	U			1.0	U
Aroclor 1221	8082A	µg/L								
Aroclor 1232	8082	µg/L			1.0	U			1.0	U
Aroclor 1232	8082A	µg/L								
Aroclor 1242	8082	µg/L			1.0	U			1.0	U
Aroclor 1242	8082A	µg/L								
Aroclor 1248	8082	µg/L			1.0	U			1.0	U
Aroclor 1248	8082A	µg/L								
Aroclor 1254	8082	µg/L			1.0	U			1.0	U
Aroclor 1254	8082A	µg/L								
Aroclor 1260	8082	µg/L			1.0	U			1.0	U
Aroclor 1260	8082A	µg/L								
Aroclor 1262	8082	µg/L			1.0	U			1.0	U
Aroclor 1262	8082A	µg/L								
Aroclor 1268	8082	µg/L			1.0	U			1.0	U
Aroclor 1268	8082A	µg/L								
Aroclor 5432	8082	µg/L			2.0	U			2.0	U
Aroclor 5432	8082A	µg/L								
Aroclor 5442	8082	µg/L			2.0	U			2.0	U
Aroclor 5442	8082A	µg/L								
Aroclor 5460	8082	µg/L			2.0	U			2.0	U
Aroclor 5460	8082A	µg/L								
Arsenic	6020	mg/L			0.00100	U			0.00100	U
Arsenic	6020A	mg/L								
Azobenzene	8270C SIM	µg/L			0.99	U			1.0	U
BAP TEQ	BAP EQUIVALENCE	µg/L								
Barium	6020	mg/L			0.00100	U			0.00100	U
Barium	6020A	mg/L								
Benzo(a)anthracene	8270C SIM	µg/L			0.20	U			0.20	U
Benzo(a)pyrene	8270C SIM	µg/L			0.20	U			0.20	U
Benzo(b)fluoranthene	8270C SIM	µg/L			0.20	U			0.20	U
Benzo(e)pyrene	8270C SIM	µg/L			0.20	U			0.20	U
Benzo(g,h,i)perylene	8270C SIM	µg/L			0.20	U			0.20	U
Benzo(k)fluoranthene	8270C SIM	µg/L			0.20	U			0.20	U
Beryllium	6020	mg/L			0.00100	U			0.00100	U
Beryllium	6020A	mg/L								
Beta-Bhc	8081A	µg/L							0.10	U
Beta-Bhc	8081B	µg/L								
Boron	6010C	mg/L								
Boron	6020	mg/L			0.0100	U			0.0100	U
Cadmium	6020	mg/L			0.00100	U			0.00100	U
Cadmium	6020A	mg/L								
Calcium	6010C	mg/L								
Calcium	6020	mg/L			0.0268	J			0.100	U
Chlordane (Technical)	8081A	µg/L							1.0	U
Chlordane (Technical)	8081B	µg/L								
Chromium	6020	mg/L			0.00100	U			0.00100	U
Chromium	6020A	mg/L								
Chromium (Hexavalent Compounds)	7199	µg/L			0.200	U				
Chrysene	8270C SIM	µg/L			0.20	U			0.20	U
Cobalt	6020	mg/L			0.00100	U			0.00100	U
Cobalt	6020A	mg/L								
Copper	6020	mg/L			0.00100	U			0.00100	U
Copper	6020A	mg/L								
Delta-Bhc	8081A	µg/L							0.10	U
Delta-Bhc	8081B	µg/L								
Dibenzo(a,h)anthracene	8270C SIM	µg/L			0.20	U			0.20	U
Dicamba	8151A	µg/L							0.80	U
Dichlorprop	8151A	µg/L							0.80	U
Dieldrin	8081A	µg/L							0.10	U
Dieldrin	8081B	µg/L								
Dinitrobutyl Phenol	8151A	µg/L							0.80	U
EFH (C12-C14)	8015B EFH	mg/L			0.099	U			0.10	U
EFH (C15-C20)	8015B EFH	mg/L			0.099	U			0.10	U
EFH (C21-C30)	8015B EFH	mg/L			0.099	U			0.10	U
EFH (C30-C40)	8015B EFH	mg/L			0.099	U			0.10	U
EFH (C8-C11)	8015B EFH	mg/L			0.099	U			0.10	U
Endosulfan I	8081A	µg/L							0.10	U
Endosulfan I	8081B	µg/L								
Endosulfan II	8081A	µg/L							0.10	U
Endosulfan II	8081B	µg/L								

		Sample Name:	EB2-120712		EB-121212		EB-121212		EB1-121312	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/07/2012		12/12/2012		12/12/2012		12/13/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L							0.10	U
Endosulfan Sulfate	8081B	µg/L								
Endrin	8081A	µg/L							0.10	U
Endrin	8081B	µg/L								
Endrin Aldehyde	8081A	µg/L							0.10	U
Endrin Aldehyde	8081B	µg/L								
Endrin Ketone	8081A	µg/L							0.10	U
Endrin Ketone	8081B	µg/L								
Fluoranthene	8270C SIM	µg/L			0.20	U			0.20	U
Fluorene	8270C SIM	µg/L			0.20	U			0.20	U
Formaldehyde	8315A	µg/L					50	U		
Gamma-Bhc (Lindane)	8081A	µg/L							0.10	U
Gamma-Bhc (Lindane)	8081B	µg/L								
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L								
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L			50	U			50	U
Heptachlor	8081A	µg/L							0.10	U
Heptachlor	8081B	µg/L								
Heptachlor Epoxide	8081A	µg/L							0.10	U
Heptachlor Epoxide	8081B	µg/L								
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L			0.20	U			0.20	U
Iron	6010C	mg/L								
Iron	6020	mg/L			0.100	U			0.100	U
Lead	6020	mg/L			0.00100	U			0.00100	U
Lead	6020A	mg/L								
Lithium	6010C	mg/L								
Lithium	6020	mg/L			0.00200	U			0.00200	U
Magnesium	6010C	mg/L								
Magnesium	6020	mg/L			0.100	U			0.100	U
Manganese	6010C	mg/L								
Manganese	6020	mg/L			0.00100	U			0.00100	U
MCPA	8151A	µg/L							100	U
MCPP	8151A	µg/L							100	U
Mercury	7470A	mg/L			0.000500	U			0.000500	U
Methoxychlor	8081A	µg/L							1.0	U
Methoxychlor	8081B	µg/L								
Mirex	8081A	µg/L							0.10	U
Mirex	8081B	µg/L								
Molybdenum	6020	mg/L			0.00200	U			0.00200	U
Molybdenum	6020A	mg/L								
Naphthalene	8270C SIM	µg/L			0.20	U			0.11	J
Nickel	6020	mg/L			0.000247	J			0.00100	U
Nickel	6020A	mg/L								
N-Nitrosodimethylamine	8270C SIM	µg/L			0.99	U			1.0	U
N-Nitrosodimethylamine	8270C SIM	ug/l			0.99	U			1.0	U
OCDD	1613B	pg/L					100	U		
OCDF	1613B	pg/L					100	U		
Perchlorate	6850	µg/L								
Perchlorate	6860	µg/L	0.050	U						
pH	9040C	pH			4.6				5.49	
Phenanthrene	8270C SIM	µg/L			0.20	U			0.20	U
Phosphorus	6010C	mg/L								
Phosphorus	6020	mg/L			0.0500	U			0.0500	U
Potassium	6010C	mg/L								
Potassium	6020	mg/L			0.100	U			0.100	U
Pyrene	8270C SIM	µg/L			0.20	U			0.20	U
Selenium	6020	mg/L			0.00100	U			0.00100	U
Selenium	6020A	mg/L								
Silver	6020	mg/L			0.00100	U			0.00100	U
Silver	6020A	mg/L								
Silvex (2,4,5-TP)	8151A	µg/L							0.80	U
Sodium	6010C	mg/L								
Sodium	6020	mg/L			0.100	U			0.100	U
Strontium	6010C	mg/L								
Strontium	6020	mg/L			0.00200	U			0.00200	U
Technical Toxaphene	8081A	µg/L							2.0	U
Technical Toxaphene	8081B	µg/L								
Temperature	9040C	deg C								
Thallium	6020	mg/L			0.00100	U			0.00100	U
Thallium	6020A	mg/L								
Tin	6010C	mg/L								
Tin	6020	mg/L			0.00100	U			0.00100	U
Titanium	6010C	mg/L								
Titanium	6020	mg/L			0.00200	U			0.00200	U
Total EFH (C8-C40)	8015B EFH	mg/L			0.099	U			0.10	U
Vanadium	6020	mg/L			0.00100	U			0.00100	U
Vanadium	6020A	mg/L								
Zinc	6020	mg/L			0.0200	U			0.0200	U
Zinc	6020A	mg/L								
Zirconium	6010C	mg/L								
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

		Sample Name:	EB1-121312		EB2-121312		EB2-121312		EB1-121912	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/13/2012		12/13/2012		12/13/2012		12/19/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L			2.1	U			2.1	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	55	U			52	U		
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	55	U			52	U		
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	55	U			52	U		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	55	U			52	U		
1,2,3,4,7,8-HXCDF	1613B	pg/L	55	U			52	U		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	55	U			52	U		
1,2,3,6,7,8-HXCDF	1613B	pg/L	55	U			52	U		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	55	U			52	U		
1,2,3,7,8,9-HXCDF	1613B	pg/L	55	U			52	U		
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	55	U			52	U		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	55	U			52	U		
1-Methylnaphthalene	8270C SIM	µg/L			0.21	U			0.21	U
2,2-Dichlor-Propionic Acid	8151A	µg/L			0.80	U			0.80	U
2,3,4,6,7,8-HXCDF	1613B	pg/L	55	U			52	U		
2,3,4,7,8-PECDF	1613B	pg/L	55	U			52	U		
2,3,7,8-TCDD	1613B	pg/L	11	U			10	U		
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	11	U			10	U		
2,4,5-T	8151A	µg/L			0.80	U			0.80	U
2,4-D	8151A	µg/L			0.80	U			0.80	U
2,4-DB	8151A	µg/L			0.80	U			0.80	U
2-Methylnaphthalene	8270C SIM	µg/L			0.21	U			0.21	U
4,4'-DDD	8081A	µg/L			0.10	U			0.10	U
4,4'-DDD	8081B	µg/L								
4,4'-DDE	8081A	µg/L			0.10	U			0.10	U
4,4'-DDE	8081B	µg/L								
4,4'-DDT	8081A	µg/L			0.10	U			0.10	U
4,4'-DDT	8081B	µg/L								
Acenaphthene	8270C SIM	µg/L			0.21	U			0.21	U
Acenaphthylene	8270C SIM	µg/L			0.21	U			0.21	U
Aldrin	8081A	µg/L			0.10	U			0.10	U
Aldrin	8081B	µg/L								
Alpha-Bhc	8081A	µg/L			0.10	U			0.10	U
Alpha-Bhc	8081B	µg/L								
Aluminum	6010C	mg/L								
Aluminum	6020	mg/L			0.100	U			0.100	U
Anthracene	8270C SIM	µg/L			0.21	U			0.21	U
Antimony	6020	mg/L			0.00100	U			0.00100	U
Antimony	6020A	mg/L								
Aroclor 1016	8082	µg/L			1.0	U			1.0	U
Aroclor 1016	8082A	µg/L								
Aroclor 1221	8082	µg/L			1.0	U			1.0	U
Aroclor 1221	8082A	µg/L								
Aroclor 1232	8082	µg/L			1.0	U			1.0	U
Aroclor 1232	8082A	µg/L								
Aroclor 1242	8082	µg/L			1.0	U			1.0	U
Aroclor 1242	8082A	µg/L								
Aroclor 1248	8082	µg/L			1.0	U			1.0	U
Aroclor 1248	8082A	µg/L								
Aroclor 1254	8082	µg/L			1.0	U			1.0	U
Aroclor 1254	8082A	µg/L								
Aroclor 1260	8082	µg/L			1.0	U			1.0	U
Aroclor 1260	8082A	µg/L								
Aroclor 1262	8082	µg/L			1.0	U			1.0	U
Aroclor 1262	8082A	µg/L								
Aroclor 1268	8082	µg/L			1.0	U			1.0	U
Aroclor 1268	8082A	µg/L								
Aroclor 5432	8082	µg/L			2.1	U			2.1	U
Aroclor 5432	8082A	µg/L								
Aroclor 5442	8082	µg/L			2.1	U			2.1	U
Aroclor 5442	8082A	µg/L								
Aroclor 5460	8082	µg/L			2.1	U			2.1	U
Aroclor 5460	8082A	µg/L								
Arsenic	6020	mg/L			0.00100	U			0.00100	U
Arsenic	6020A	mg/L								
Azobenzene	8270C SIM	µg/L			1.1	U			1.0	U
BAP TEQ	BAP EQUIVALENCE	µg/L								
Barium	6020	mg/L			0.00100	U			0.00117	
Barium	6020A	mg/L								
Benzo(a)anthracene	8270C SIM	µg/L			0.21	U			0.21	U
Benzo(a)pyrene	8270C SIM	µg/L			0.21	U			0.21	U
Benzo(b)fluoranthene	8270C SIM	µg/L			0.21	U			0.21	U
Benzo(e)pyrene	8270C SIM	µg/L			0.21	U			0.21	U
Benzo(g,h,i)perylene	8270C SIM	µg/L			0.21	U			0.21	U
Benzo(k)fluoranthene	8270C SIM	µg/L			0.21	U			0.21	U
Beryllium	6020	mg/L			0.00100	U			0.00100	U
Beryllium	6020A	mg/L								
Beta-Bhc	8081A	µg/L			0.10	U			0.10	U
Beta-Bhc	8081B	µg/L								
Boron	6010C	mg/L								
Boron	6020	mg/L			0.0100	U			0.0100	U
Cadmium	6020	mg/L			0.00100	U			0.00100	U
Cadmium	6020A	mg/L								
Calcium	6010C	mg/L								
Calcium	6020	mg/L			0.100	U			0.0315	J
Chlordane (Technical)	8081A	µg/L			1.0	U			1.0	U
Chlordane (Technical)	8081B	µg/L								
Chromium	6020	mg/L			0.00100	U			0.00100	U
Chromium	6020A	mg/L								
Chromium (Hexavalent Compounds)	7199	µg/L								
Chrysene	8270C SIM	µg/L			0.21	U			0.21	U
Cobalt	6020	mg/L			0.00100	U			0.00100	U
Cobalt	6020A	mg/L								
Copper	6020	mg/L			0.00100	U			0.000587	J
Copper	6020A	mg/L								
Delta-Bhc	8081A	µg/L			0.10	U			0.10	U
Delta-Bhc	8081B	µg/L								
Dibenzo(a,h)anthracene	8270C SIM	µg/L			0.21	U			0.21	U
Dicamba	8151A	µg/L			0.80	U			0.80	U
Dichlorprop	8151A	µg/L			0.80	U			0.80	U
Dieldrin	8081A	µg/L			0.10	U			0.10	U
Dieldrin	8081B	µg/L								
Dinitrobutyl Phenol	8151A	µg/L			0.80	U			0.80	U
EFH (C12-C14)	8015B EFH	mg/L			0.11	U			0.10	U
EFH (C15-C20)	8015B EFH	mg/L			0.11	U			0.10	U
EFH (C21-C30)	8015B EFH	mg/L			0.11	U			0.10	U
EFH (C30-C40)	8015B EFH	mg/L			0.11	U			0.10	U
EFH (C8-C11)	8015B EFH	mg/L			0.11	U			0.10	U
Endosulfan I	8081A	µg/L			0.10	U			0.10	U
Endosulfan I	8081B	µg/L								
Endosulfan II	8081A	µg/L			0.10	U			0.10	U
Endosulfan II	8081B	µg/L								

		Sample Name:	EB1-121312		EB2-121312		EB2-121312		EB1-121912	
		Location:	EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK		EQUIPMENT BLANK	
		Sample Date:	12/13/2012		12/13/2012		12/13/2012		12/19/2012	
		Sample Type:	EB		EB		EB		EB	
		Lab:	Test America		EMAX		Test America		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L			0.10	U			0.10	U
Endosulfan Sulfate	8081B	µg/L								
Endrin	8081A	µg/L			0.10	U			0.10	U
Endrin	8081B	µg/L								
Endrin Aldehyde	8081A	µg/L			0.10	U			0.10	U
Endrin Aldehyde	8081B	µg/L								
Endrin Ketone	8081A	µg/L			0.10	U			0.10	U
Endrin Ketone	8081B	µg/L								
Fluoranthene	8270C SIM	µg/L			0.21	U			0.21	U
Fluorene	8270C SIM	µg/L			0.21	U			0.21	U
Formaldehyde	8315A	µg/L								
Gamma-Bhc (Lindane)	8081A	µg/L			0.10	U			0.10	U
Gamma-Bhc (Lindane)	8081B	µg/L								
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L								
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L							50	U
Heptachlor	8081A	µg/L			0.10	U			0.10	U
Heptachlor	8081B	µg/L								
Heptachlor Epoxide	8081A	µg/L			0.10	U			0.10	U
Heptachlor Epoxide	8081B	µg/L								
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L			0.21	U			0.21	U
Iron	6010C	mg/L								
Iron	6020	mg/L			0.100	U			0.100	U
Lead	6020	mg/L			0.00100	U			0.00100	U
Lead	6020A	mg/L								
Lithium	6010C	mg/L								
Lithium	6020	mg/L			0.00200	U			0.00200	U
Magnesium	6010C	mg/L								
Magnesium	6020	mg/L			0.100	U			0.100	U
Manganese	6010C	mg/L								
Manganese	6020	mg/L			0.00100	U			0.00100	U
MCPA	8151A	µg/L			100	U			100	U
MCPP	8151A	µg/L			100	U			100	U
Mercury	7470A	mg/L			0.000500	U			0.000500	U
Methoxychlor	8081A	µg/L			1.0	U			1.0	U
Methoxychlor	8081B	µg/L								
Mirex	8081A	µg/L			0.10	U			0.10	U
Mirex	8081B	µg/L								
Molybdenum	6020	mg/L			0.00200	U			0.00200	U
Molybdenum	6020A	mg/L								
Naphthalene	8270C SIM	µg/L			0.12	J			0.18	J
Nickel	6020	mg/L			0.00100	U			0.000210	J
Nickel	6020A	mg/L								
N-Nitrosodimethylamine	8270C SIM	µg/L			1.1	U			1.0	U
N-Nitrosodimethylamine	8270C SIM	ug/l			1.1	U			1.0	U
OCDD	1613B	pg/L	110	U			100	U		
OCDF	1613B	pg/L	110	U			100	U		
Perchlorate	6850	µg/L							0.200	U
Perchlorate	6860	µg/L								
pH	9040C	pH			5.49				5.35	
Phenanthrene	8270C SIM	µg/L			0.21	U			0.21	U
Phosphorus	6010C	mg/L								
Phosphorus	6020	mg/L			0.0500	U			0.0500	U
Potassium	6010C	mg/L								
Potassium	6020	mg/L			0.100	U			0.100	U
Pyrene	8270C SIM	µg/L			0.21	U			0.21	U
Selenium	6020	mg/L			0.00100	U			0.00100	U
Selenium	6020A	mg/L								
Silver	6020	mg/L			0.00100	U			0.00100	U
Silver	6020A	mg/L								
Silvex (2,4,5-TP)	8151A	µg/L			0.80	U			0.80	U
Sodium	6010C	mg/L								
Sodium	6020	mg/L			0.100	U			0.0601	J
Strontium	6010C	mg/L								
Strontium	6020	mg/L			0.00200	U			0.00200	U
Technical Toxaphene	8081A	µg/L			2.1	U			2.1	U
Technical Toxaphene	8081B	µg/L								
Temperature	9040C	deg C								
Thallium	6020	mg/L			0.00100	U			0.00100	U
Thallium	6020A	mg/L								
Tin	6010C	mg/L								
Tin	6020	mg/L			0.00100	U			0.00100	U
Titanium	6010C	mg/L								
Titanium	6020	mg/L			0.00200	U			0.00200	U
Total EFH (C8-C40)	8015B EFH	mg/L			0.11	U			0.10	U
Vanadium	6020	mg/L			0.00100	U			0.00100	U
Vanadium	6020A	mg/L								
Zinc	6020	mg/L			0.0200	U			0.0200	U
Zinc	6020A	mg/L								
Zirconium	6010C	mg/L								
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

		Sample Name:	EB2-121912	
		Location:	EQUIPMENT BLANK	
		Sample Date:	12/19/2012	
		Sample Type:	EB	
		Lab:	EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer
1,1'-Biphenyl	8270C SIM	µg/L	2.2	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L		
1,2,3,4,6,7,8-HPCDF	1613B	pg/L		
1,2,3,4,7,8,9-HPCDF	1613B	pg/L		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L		
1,2,3,4,7,8-HXCDF	1613B	pg/L		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L		
1,2,3,6,7,8-HXCDF	1613B	pg/L		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L		
1,2,3,7,8,9-HXCDF	1613B	pg/L		
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L		
1-Methylnaphthalene	8270C SIM	µg/L	0.22	U
2,2-Dichlor-Propionic Acid	8151A	µg/L		
2,3,4,6,7,8-HXCDF	1613B	pg/L		
2,3,4,7,8-PECDF	1613B	pg/L		
2,3,7,8-TCDD	1613B	pg/L		
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L		
2,4,5-T	8151A	µg/L		
2,4-D	8151A	µg/L		
2,4-DB	8151A	µg/L		
2-Methylnaphthalene	8270C SIM	µg/L	0.22	U
4,4'-DDD	8081A	µg/L		
4,4'-DDD	8081B	µg/L		
4,4'-DDE	8081A	µg/L		
4,4'-DDE	8081B	µg/L		
4,4'-DDT	8081A	µg/L		
4,4'-DDT	8081B	µg/L		
Acenaphthene	8270C SIM	µg/L	0.22	U
Acenaphthylene	8270C SIM	µg/L	0.22	U
Aldrin	8081A	µg/L		
Aldrin	8081B	µg/L		
Alpha-Bhc	8081A	µg/L		
Alpha-Bhc	8081B	µg/L		
Aluminum	6010C	mg/L		
Aluminum	6020	mg/L	0.100	U
Anthracene	8270C SIM	µg/L	0.22	U
Antimony	6020	mg/L	0.00100	U
Antimony	6020A	mg/L		
Aroclor 1016	8082	µg/L	1.2	U
Aroclor 1016	8082A	µg/L		
Aroclor 1221	8082	µg/L	1.2	U
Aroclor 1221	8082A	µg/L		
Aroclor 1232	8082	µg/L	1.2	U
Aroclor 1232	8082A	µg/L		
Aroclor 1242	8082	µg/L	1.2	U
Aroclor 1242	8082A	µg/L		
Aroclor 1248	8082	µg/L	1.2	U
Aroclor 1248	8082A	µg/L		
Aroclor 1254	8082	µg/L	1.2	U
Aroclor 1254	8082A	µg/L		
Aroclor 1260	8082	µg/L	1.2	U
Aroclor 1260	8082A	µg/L		
Aroclor 1262	8082	µg/L	1.2	U
Aroclor 1262	8082A	µg/L		
Aroclor 1268	8082	µg/L	1.2	U
Aroclor 1268	8082A	µg/L		
Aroclor 5432	8082	µg/L	2.4	U
Aroclor 5432	8082A	µg/L		
Aroclor 5442	8082	µg/L	2.4	U
Aroclor 5442	8082A	µg/L		
Aroclor 5460	8082	µg/L	2.4	U
Aroclor 5460	8082A	µg/L		
Arsenic	6020	mg/L	0.00100	U
Arsenic	6020A	mg/L		
Azobenzene	8270C SIM	µg/L	1.1	U
BAP TEQ	BAP EQUIVALENCE	µg/L		
Barium	6020	mg/L	0.00100	U
Barium	6020A	mg/L		
Benzo(a)anthracene	8270C SIM	µg/L	0.22	U
Benzo(a)pyrene	8270C SIM	µg/L	0.22	U
Benzo(b)fluoranthene	8270C SIM	µg/L	0.22	U
Benzo(e)pyrene	8270C SIM	µg/L	0.22	U
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.22	U
Benzo(k)fluoranthene	8270C SIM	µg/L	0.22	U
Beryllium	6020	mg/L	0.00100	U
Beryllium	6020A	mg/L		
Beta-Bhc	8081A	µg/L		
Beta-Bhc	8081B	µg/L		
Boron	6010C	mg/L		
Boron	6020	mg/L	0.0100	U
Cadmium	6020	mg/L	0.00100	U
Cadmium	6020A	mg/L		
Calcium	6010C	mg/L		
Calcium	6020	mg/L	0.0284	J
Chlordane (Technical)	8081A	µg/L		
Chlordane (Technical)	8081B	µg/L		
Chromium	6020	mg/L	0.00100	U
Chromium	6020A	mg/L		
Chromium (Hexavalent Compounds)	7199	µg/L		
Chrysene	8270C SIM	µg/L	0.22	U
Cobalt	6020	mg/L	0.00100	U
Cobalt	6020A	mg/L		
Copper	6020	mg/L	0.000667	J
Copper	6020A	mg/L		
Delta-Bhc	8081A	µg/L		
Delta-Bhc	8081B	µg/L		
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.22	U
Dicamba	8151A	µg/L		
Dichlorprop	8151A	µg/L		
Dieldrin	8081A	µg/L		
Dieldrin	8081B	µg/L		
Dinitrobutyl Phenol	8151A	µg/L		
EFH (C12-C14)	8015B EFH	mg/L	0.10	U
EFH (C15-C20)	8015B EFH	mg/L	0.10	U
EFH (C21-C30)	8015B EFH	mg/L	0.10	U
EFH (C30-C40)	8015B EFH	mg/L	0.10	U
EFH (C8-C11)	8015B EFH	mg/L	0.10	U
Endosulfan I	8081A	µg/L		
Endosulfan I	8081B	µg/L		
Endosulfan II	8081A	µg/L		
Endosulfan II	8081B	µg/L		

		Sample Name:	EB2-121912	
		Location:	EQUIPMENT BLANK	
		Sample Date:	12/19/2012	
		Sample Type:	EB	
		Lab:	EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer
Endosulfan Sulfate	8081A	µg/L		
Endosulfan Sulfate	8081B	µg/L		
Endrin	8081A	µg/L		
Endrin	8081B	µg/L		
Endrin Aldehyde	8081A	µg/L		
Endrin Aldehyde	8081B	µg/L		
Endrin Ketone	8081A	µg/L		
Endrin Ketone	8081B	µg/L		
Fluoranthene	8270C SIM	µg/L	0.22	U
Fluorene	8270C SIM	µg/L	0.22	U
Formaldehyde	8315A	µg/L		
Gamma-Bhc (Lindane)	8081A	µg/L		
Gamma-Bhc (Lindane)	8081B	µg/L		
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L		
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L		
Heptachlor	8081A	µg/L		
Heptachlor	8081B	µg/L		
Heptachlor Epoxide	8081A	µg/L		
Heptachlor Epoxide	8081B	µg/L		
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.22	U
Iron	6010C	mg/L		
Iron	6020	mg/L	0.100	U
Lead	6020	mg/L	0.00100	U
Lead	6020A	mg/L		
Lithium	6010C	mg/L		
Lithium	6020	mg/L	0.00200	U
Magnesium	6010C	mg/L		
Magnesium	6020	mg/L	0.100	U
Manganese	6010C	mg/L		
Manganese	6020	mg/L	0.00100	U
MCPA	8151A	µg/L		
MCPP	8151A	µg/L		
Mercury	7470A	mg/L	0.000500	U
Methoxychlor	8081A	µg/L		
Methoxychlor	8081B	µg/L		
Mirex	8081A	µg/L		
Mirex	8081B	µg/L		
Molybdenum	6020	mg/L	0.00200	U
Molybdenum	6020A	mg/L		
Naphthalene	8270C SIM	µg/L	0.17	J
Nickel	6020	mg/L	0.000230	J
Nickel	6020A	mg/L		
N-Nitrosodimethylamine	8270C SIM	µg/L	1.1	U
N-Nitrosodimethylamine	8270C SIM	ug/l	1.1	U
OCDD	1613B	pg/L		
OCDF	1613B	pg/L		
Perchlorate	6850	µg/L	0.200	U
Perchlorate	6860	µg/L		
pH	9040C	pH	5.45	
Phenanthrene	8270C SIM	µg/L	0.22	U
Phosphorus	6010C	mg/L		
Phosphorus	6020	mg/L	0.0500	U
Potassium	6010C	mg/L		
Potassium	6020	mg/L	0.100	U
Pyrene	8270C SIM	µg/L	0.22	U
Selenium	6020	mg/L	0.00100	U
Selenium	6020A	mg/L		
Silver	6020	mg/L	0.00100	U
Silver	6020A	mg/L		
Silvex (2,4,5-TP)	8151A	µg/L		
Sodium	6010C	mg/L		
Sodium	6020	mg/L	0.100	U
Strontium	6010C	mg/L		
Strontium	6020	mg/L	0.00200	U
Technical Toxaphene	8081A	µg/L		
Technical Toxaphene	8081B	µg/L		
Temperature	9040C	deg C		
Thallium	6020	mg/L	0.00100	U
Thallium	6020A	mg/L		
Tin	6010C	mg/L		
Tin	6020	mg/L	0.00100	U
Titanium	6010C	mg/L		
Titanium	6020	mg/L	0.00200	U
Total EFH (C8-C40)	8015B EFH	mg/L	0.10	U
Vanadium	6020	mg/L	0.00100	U
Vanadium	6020A	mg/L		
Zinc	6020	mg/L	0.0200	U
Zinc	6020A	mg/L		
Zirconium	6010C	mg/L		
Zirconium	6020	mg/L	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

		Sample Name:	FB-060512		FB-060512		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		11/14/2012	
		Sample Type:	FB		FB		FB	
		Lab:	EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	1	U			1	U
1,1,1-Trichloroethane	8260B	µg/L	1	U			1	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	1	U			1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	1	U			3	U
1,1,2-Trichloroethane	8260B	µg/L	1	U			1	U
1,1'-Biphenyl	8270C SIM	µg/L	2.2	U				
1,1-Dichloroethane	8260B	µg/L	1	U			1	U
1,1-Dichloroethene	8260B	µg/L	1	U			1	U
1,1-Dichloropropene	8260B	µg/L	1	U			1	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U	50	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L			9.6	U	50	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L			9.6	U	50	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U	50	U
1,2,3,4,7,8-HXCDF	1613B	pg/L			9.6	U	50	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U	50	U
1,2,3,6,7,8-HXCDF	1613B	pg/L			9.6	U	50	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U	50	U
1,2,3,7,8,9-HXCDF	1613B	pg/L			9.6	U	50	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L			0.142	J	50	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U	50	U
1,2,3-Trichlorobenzene	8260B	µg/L	1	U			1	U
1,2,3-Trichloropropane	8260B	µg/L	2	U			2.5	U
1,2,4-Trichlorobenzene	8260B	µg/L	1	U			1	U
1,2,4-Trichlorobenzene	8270C	µg/L	11	UJ				
1,2,4-Trimethylbenzene	8260B	µg/L	1	U			1	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	2	U			5	U
1,2-Dibromoethane	8260B	µg/L	1	U			1	U
1,2-Dichlorobenzene	8260B	µg/L	1	U			1	U
1,2-Dichlorobenzene	8270C	µg/L	11	UJ				
1,2-Dichloroethane	8260B	µg/L	1	U			1	U
1,2-Dichloropropane	8260B	µg/L	1	U			1	U
1,2-Diphenylhydrazine	8270C	µg/L	11	UJ				
1,3,5-Trimethylbenzene	8260B	µg/L	1	U			1	U
1,3,5-Trinitrobenzene	8330A	µg/L	0.6	U			1.1	U
1,3-Dichlorobenzene	8260B	µg/L	1	U			1	U
1,3-Dichlorobenzene	8270C	µg/L	11	UJ				
1,3-Dichloropropane	8260B	µg/L	1	U			1	U
1,3-Dichloropropylene	8260B	µg/L					1	U
1,4-Dichlorobenzene	8260B	µg/L	1	U			1	U
1,4-Dichlorobenzene	8270C	µg/L	11	UJ				
1,4-Dioxane	8260B SIM	µg/L	2	U			1	U
1-Chlorohexane	8260B	µg/L	1	U			1	U
1-Methylnaphthalene	8270C SIM	µg/L	0.22	U			0.01	J
2,2-Dichloropropane	8260B	µg/L	1	U			1	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	0.8	U			2.1	U
2,3,4,6,7,8-HXCDF	1613B	pg/L			9.6	U	50	U
2,3,4,7,8-PECDF	1613B	pg/L			9.6	U	50	U
2,3,7,8-TCDD	1613B	pg/L			1.92	U	0.2	J
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L			0.208	J	10	U
2,4,5-T	8151A	µg/L	0.8	U			1	U
2,4,5-Trichlorophenol	8270C	µg/L	11	UJ				
2,4,6-Trichlorophenol	8270C	µg/L	11	UJ				
2,4,6-Trinitrotoluene	8330A	µg/L	0.6	U			0.14	J
2,4-D	8151A	µg/L	0.8	U			4.1	U
2,4-DB	8151A	µg/L	0.8	U			4.1	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L	2	U			1.1	U
2,4-Dichlorophenol	8270C	µg/L	11	UJ				
2,4-Dimethylphenol	8270C	µg/L	11	UJ				
2,4-Dinitrophenol	8270C	µg/L	21	UJ				
2,4-Dinitrotoluene	8330A	µg/L	0.6	U			0.43	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L	2	U			1.1	U
2,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.21	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.21	UJ
2-Butanone (MEK)	8260B	µg/L	10	U			6	U
2-butoxyethanol	8270C	µg/L	11	UJ				
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	1	U			5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	2	U			3	U
2-Chloronaphthalene	8270C	µg/L	11	UJ				
2-Chlorophenol	8270C	µg/L	11	UJ				
2-Chlorotoluene	8260B	µg/L	1	U			1	U
2-Hexanone	8260B	µg/L	10	U			5	U
2-Methylnaphthalene	8270C SIM	µg/L	0.22	U			0.013	J
2-Methylphenol	8270C	µg/L	11	UJ				
2-Nitroaniline	8270C	µg/L	11	UJ				
2-Nitrophenol	8270C	µg/L	11	UJ				
2-Nitrotoluene	8330A	µg/L	0.6	U			0.43	U
2-phenoxyethanol	8270C	µg/L	11	UJ				
2-Phenylbutane	8260B	µg/L	1	U			1	U
2-Propanol	8015B	µg/L	1000	U				
2-Propanol	8015C	µg/L					1000	U
3,3'-Dichlorobenzidine	8270C	µg/L	11	UJ				
3,5-Dimethylphenol	8270C	µg/L	21	UJ				
3-Nitroaniline	8270C	µg/L	11	UJ				
3-Nitrotoluene	8330A	µg/L	0.6	U			0.43	U
4,4'-DDD	8081A	µg/L	0.1	U				
4,4'-DDD	8081B	µg/L					0.051	U
4,4'-DDE	8081A	µg/L	0.1	U				
4,4'-DDE	8081B	µg/L					0.051	U
4,4'-DDT	8081A	µg/L	0.1	U				
4,4'-DDT	8081B	µg/L					0.051	U
4,6-Dinitro-2-methylphenol	8270C	µg/L	21	UJ				
4-Amino-2,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.21	U
4-Bromophenyl-phenylether	8270C	µg/L	11	UJ				
4-Chloro-3-methylphenol	8270C	µg/L	11	UJ				
4-Chloroaniline	8270C	µg/L	11	UJ				
4-Chlorophenyl-phenylether	8270C	µg/L	11	U				
4-Chlorotoluene	8260B	µg/L	1	U			1	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U			5	U
4-Methylphenol	8270C	µg/L	11	UJ				
4-Nitroaniline	8270C	µg/L	11	UJ				
4-Nitrophenol	8270C	µg/L	21	UJ				
4-Nitrotoluene	8330A	µg/L	0.6	U			1.1	U
Acenaphthene	8270C SIM	µg/L	0.22	U			0.1	U
Acenaphthylene	8270C SIM	µg/L	0.22	U			0.1	U
Acetone	8260B	µg/L	26				10	U
Acrolein	8260B	µg/L	10	U			20	U
Acrylonitrile	8260B	µg/L	10	U			20	U
Aldrin	8081A	µg/L	0.1	U				
Aldrin	8081B	µg/L					0.051	U
Alpha-Bhc	8081A	µg/L	0.1	U				
Alpha-Bhc	8081B	µg/L					0.051	U
Aluminum	6010C	mg/L					0.1	U
Aluminum	6020	mg/L	0.027	J				
Aniline	8270C	µg/L	21	UJ				
Anthracene	8270C SIM	µg/L	0.22	U			0.1	U
Antimony	6020	mg/L	0.001	U				
Antimony	6020A	mg/L					0.002	U
Aroclor 1016	8082	µg/L	1	U				
Aroclor 1016	8082A	µg/L					1	U
Aroclor 1221	8082	µg/L	1	U				
Aroclor 1221	8082A	µg/L					1	U
Aroclor 1232	8082	µg/L	1	U				
Aroclor 1232	8082A	µg/L					1	U
Aroclor 1242	8082	µg/L	1	U				
Aroclor 1242	8082A	µg/L					1	U
Aroclor 1248	8082	µg/L	1	U				
Aroclor 1248	8082A	µg/L					1	U
Aroclor 1254	8082	µg/L	1	U				
Aroclor 1254	8082A	µg/L					1	U
Aroclor 1260	8082	µg/L	1	U				
Aroclor 1260	8082A	µg/L					1	U
Aroclor 1262	8082	µg/L	1	U				

		Sample Name:	FB-060512		FB-060512		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		11/14/2012	
		Sample Type:	FB		FB		FB	
		Lab:	EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1262	8082A	µg/L					1	U
Aroclor 1268	8082	µg/L	1	U				
Aroclor 1268	8082A	µg/L					1	U
Aroclor 5432	8082	µg/L	2	U				
Aroclor 5432	8082A	µg/L					0.51	U
Aroclor 5442	8082	µg/L	2	U				
Aroclor 5442	8082A	µg/L					0.51	U
Aroclor 5460	8082	µg/L	2	U				
Aroclor 5460	8082A	µg/L					0.51	U
Arsenic	6020	mg/L	0.001	U				
Arsenic	6020A	mg/L					0.005	U
Azobenzene	8270C SIM	µg/L	1.1	U				
BAP TEQ	BAP EQUIVALENCE	µg/L					0.0001	U
Barium	6020	mg/L	0.001	U				
Barium	6020A	mg/L					0.001	U
Benzene	8260B	µg/L	1	U			1	U
Benzidine	8270C	µg/L	53	UJ				
Benzo(a)anthracene	8270C SIM	µg/L	0.22	U			0.1	U
Benzo(a)pyrene	8270C SIM	µg/L	0.22	U			0.1	U
Benzo(b)fluoranthene	8270C SIM	µg/L	0.22	U			0.1	U
Benzo(e)pyrene	8270C SIM	µg/L	0.22	U				
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.22	U			0.1	U
Benzo(k)fluoranthene	8270C SIM	µg/L	0.22	U			0.1	U
Benzoic Acid	8270C	µg/L	42	UJ				
Benzyl Alcohol	8270C	µg/L	11	UJ				
Beryllium	6020	mg/L	0.001	U				
Beryllium	6020A	mg/L					0.001	U
Beta-Bhc	8081A	µg/L	0.1	U				
Beta-Bhc	8081B	µg/L					0.051	U
bis(2-chloroethoxy)methane	8270C	µg/L	11	UJ				
bis(2-chloroethyl) ether	8270C	µg/L	11	UJ				
bis(2-chloroisopropyl) ether	8270C	µg/L	11	UJ				
Bis(2-ethylhexyl)phthalate	8270C	µg/L	21	UJ				
Boron	6010C	mg/L					0.1	U
Boron	6020	mg/L	0.01	U				
Bromobenzene	8260B	µg/L	1	U			1	U
Bromochloromethane	8260B	µg/L	1	U			1	U
Bromodichloromethane	8260B	µg/L	1	U			1	U
Bromoform	8260B	µg/L	1	U			1	U
Bromomethane	8260B	µg/L	1	U			2	U
Butylbenzylphthalate	8270C	µg/L	11	UJ				
Cadmium	6020	mg/L	0.001	U				
Cadmium	6020A	mg/L					0.001	U
Calcium	6010C	mg/L					0.2	U
Calcium	6020	mg/L	0.0263	J				
Carbazole	8270C	µg/L	11	UJ				
Carbon Disulfide	8260B	µg/L	1	U			2	U
Carbon Tetrachloride	8260B	µg/L	1	U			1	U
Chlordane (Technical)	8081A	µg/L	1	U				
Chlordane (Technical)	8081B	µg/L					0.51	U
Chlorobenzene	8260B	µg/L	1	U			1	U
Chloroethane	8260B	µg/L	1	U			2	U
Chloroform	8260B	µg/L	1	U			1	U
Chloromethane	8260B	µg/L	1	U			2	U
Chlorotrifluoroethylene	8260B	µg/L	1	U			5	U
Chromium	6020	mg/L	0.001	U				
Chromium	6020A	mg/L					0.002	U
Chromium (Hexavalent Compounds)	7199	µg/L	0.2	U			2	U
Chrysene	8270C SIM	µg/L	0.22	U			0.1	U
cis-1,2-Dichloroethene	8260B	µg/L	1	U			1	U
cis-1,3-Dichloropropene	8260B	µg/L	1	U			1	U
Cobalt	6020	mg/L	0.001	U				
Cobalt	6020A	mg/L					0.001	U
Copper	6020	mg/L	0.000954	J				
Copper	6020A	mg/L					0.002	U
Cymene	8260B	µg/L	1	U			1	U
Delta-Bhc	8081A	µg/L	0.1	U				
Delta-Bhc	8081B	µg/L					0.051	U
Di isopropyl Ether	8260B	µg/L	1	U			10	U
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.22	U			0.1	U
Dibenzofuran	8270C	µg/L	11	UJ				
Dibromochloromethane	8260B	µg/L	1	U			1	U
Dibromomethane	8260B	µg/L	1	U			1	U
Dicamba	8151A	µg/L	0.8	U			2.1	U
Dichlorodifluoromethane	8260B	µg/L	1	U			2	U
Dichlorprop	8151A	µg/L	0.8	U			4.1	U
Dieldrin	8081A	µg/L	0.1	U				
Dieldrin	8081B	µg/L					0.051	U
Diethylene Glycol	8015C	mg/L					10	U
Diethylene Glycol	8015M	mg/L	10	U				
Diethylphthalate	8270C	µg/L	11	UJ				
Dimethylphthalate	8270C	µg/L	11	UJ				
Di-n-butylphthalate	8270C	µg/L	11	UJ				
Dinitrobutyl Phenol	8151A	µg/L	0.8	U			1	U
Di-n-octylphthalate	8270C	µg/L	11	UJ				
EFH (C12-C14)	8015B EFH	mg/L	0.11	U			0.26	U
EFH (C15-C20)	8015B EFH	mg/L	0.11	U			0.26	U
EFH (C21-C30)	8015B EFH	mg/L	0.11	U			0.26	U
EFH (C30-C40)	8015B EFH	mg/L	0.11	U			0.26	U
EFH (C8-C11)	8015B EFH	mg/L	0.11	U			0.26	U
Endosulfan I	8081A	µg/L	0.1	U				
Endosulfan I	8081B	µg/L					0.051	U
Endosulfan II	8081A	µg/L	0.1	U				
Endosulfan II	8081B	µg/L					0.051	U
Endosulfan Sulfate	8081A	µg/L	0.1	U				
Endosulfan Sulfate	8081B	µg/L					0.051	U
Endrin	8081A	µg/L	0.1	U				
Endrin	8081B	µg/L					0.051	U
Endrin Aldehyde	8081A	µg/L	0.1	U				
Endrin Aldehyde	8081B	µg/L					0.051	U
Endrin Ketone	8081A	µg/L	0.1	U				
Endrin Ketone	8081B	µg/L					0.051	U
Ethanol	8015B	µg/L	1000	U				
Ethanol	8015C	µg/L					1000	U
Ethylbenzene	8260B	µg/L	1	U			1	U
Ethylene Glycol	8015C	mg/L					10	U
Ethylene Glycol	8015M	mg/L	10	U				
Fluoranthene	8270C SIM	µg/L	0.22	U			0.1	U
Fluorene	8270C SIM	µg/L	0.22	U			0.1	U
Formaldehyde	8315A	µg/L			12	J	50	U
Gamma-Bhc (Lindane)	8081A	µg/L	0.1	U				
Gamma-Bhc (Lindane)	8081B	µg/L					0.051	U
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L					25	U
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L	49	J				
Heptachlor	8081A	µg/L	0.1	U				
Heptachlor	8081B	µg/L					0.051	U
Heptachlor Epoxide	8081A	µg/L	0.1	U				
Heptachlor Epoxide	8081B	µg/L					0.051	U
Hexachloro-1,3-butadiene	8260B	µg/L	1	U			1	U
Hexachlorobenzene	8270C	µg/L	11	UJ				
Hexachlorobutadiene	8270C	µg/L	11	UJ				
Hexachlorocyclopentadiene	8270C	µg/L	21	UJ				
Hexachloroethane	8270C	µg/L	11	UJ				
HMX	8330A	µg/L	0.6	U			0.43	U
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.22	U			0.1	U
Iron	6010C	mg/L					0.1	U
Iron	6020	mg/L	0.1	U				
Isophorone	8270C	µg/L	11	UJ				
Isopropylbenzene	8260B	µg/L	1	U			1	U
Lead	6020	mg/L	0.001	U				
Lead	6020A	mg/L					0.001	U
Lithium	6010C	mg/L					0.01	U

		Sample Name:	FB-060512		FB-060512		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		11/14/2012	
		Sample Type:	FB		FB		FB	
		Lab:	EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Lithium	6020	mg/L	0.002	U				
m,p-Xylene	8260B	µg/L	2	U			2	U
Magnesium	6010C	mg/L					0.2	U
Magnesium	6020	mg/L	0.1	U				
Manganese	6010C	mg/L					0.01	U
Manganese	6020	mg/L	0.001	U				
MCPA	8151A	µg/L	100	U			410	U
MCPP	8151A	µg/L	100	U				
M-Dinitrobenzene	8330A	µg/L	0.6	U			0.43	U
Mecoprop	8151A	µg/L					410	U
Mercury	7470A	mg/L	0.0005	U			0.0002	U
Methanol	8015B	µg/L	1000	U				
Methanol	8015C	µg/L					1000	U
Methoxychlor	8081A	µg/L	1	U				
Methoxychlor	8081B	µg/L					0.1	U
Methyl Iodide	8260B	µg/L	1	U			1	U
Methyl Tert-Butyl Ether	8260B	µg/L	1	U			5	U
Methylene Chloride	8260B	µg/L	1	U			2	U
Mirex	8081A	µg/L	0.1	U				
Mirex	8081B	µg/L					0.051	U
Molybdenum	6020	mg/L	0.002	U				
Molybdenum	6020A	mg/L					0.002	U
Morpholine	8270C SIM	µg/L					40	U
m-Terphenyl	8015B	mg/L			0.26	U	0.0049	U
Naphthalene	8270C SIM	µg/L	0.22	U			0.054	J
n-Butylbenzene	8260B	µg/L	1	U			1	U
Nickel	6020	mg/L	0.001	U				
Nickel	6020A	mg/L					0.002	U
Nitrobenzene	8270C	µg/L	11	UJ				
Nitrobenzene	8330A	µg/L	0.6	U			0.36	J
Nitroglycerin	8330A	µg/kg					100000000	U
Nitroglycerin	8332	µg/L	250	U				
N-Nitrosodimethylamine	8270C SIM	µg/L	1.1	U			0.4	U
N-Nitrosodimethylamine	8270C SIM	ug/l	1.1	U			0.4	U
N-Nitroso-di-n-propylamine	8270C	µg/L	11	UJ				
N-Nitrosodiphenylamine	8270C	µg/L	11	UJ				
n-Propylbenzene	8260B	µg/L	1	U			1	U
OCDD	1613B	pg/L			19.2	U	100	U
OCDF	1613B	pg/L			19.2	U	100	U
o-Terphenyl	8015B	mg/L			0.26	U	0.0049	U
o-Xylene	8260B	µg/L	1	U			1	U
Pentachlorophenol	8270C	µg/L	21	UJ				
Perchlorate	6850	µg/L	0.2	U				
Perchlorate	6860	µg/L					0.05	U
PETN	8330A	µg/kg					100000000	U
PETN	8332	µg/L	250	U				
pH	9040C	pH	5.7				5.81	
Phenanthrene	8270C SIM	µg/L	0.22	U			0.025	J
Phenol	8270C	µg/L	11	UJ				
Phosphorus	6010C	mg/L					3	U
Phosphorus	6020	mg/L	0.05	U				
Potassium	6010C	mg/L					3	U
Potassium	6020	mg/L	0.1	U				
Propylene Glycol	8015C	mg/L					10	U
Propylene Glycol	8015M	mg/L	10	U				
p-Terphenyl	8015B	mg/L			0.26	U	0.0049	U
Pyrene	8270C SIM	µg/L	0.22	U			0.1	U
RDX	8330A	µg/L	0.6	U			0.21	U
Selenium	6020	mg/L	0.001	U				
Selenium	6020A	mg/L					0.005	U
Silver	6020	mg/L	0.001	U				
Silver	6020A	mg/L					0.00078	J
Silvex (2,4,5-TP)	8151A	µg/L	0.8	U			1	U
Sodium	6010C	mg/L					1	U
Sodium	6020	mg/L	0.1	U				
Strontium	6010C	mg/L					0.01	U
Strontium	6020	mg/L	0.002	U				
Styrene	8260B	µg/L	1	U			1	U
Technical Toxaphene	8081A	µg/L	2	U				
Technical Toxaphene	8081B	µg/L					2.1	U
Temperature	9040C	deg C					20	
tert-Butyl ethyl ether	8260B	µg/L	1	U			5	U
tert-Butylbenzene	8260B	µg/L	1	U			1	U
Tertiary amyl methyl ether	8260B	µg/L	1	U			5	U
Tertiary butyl alcohol	8260B	µg/L	10	U			50	U
Tetrachloroethene	8260B	µg/L	1	U			1	U
Tetralin	8270C	µg/L	11	UJ				
Tetryl	8330A	µg/L	0.6	U			0.21	U
Thallium	6020	mg/L	0.001	U				
Thallium	6020A	mg/L					0.001	U
Tin	6010C	mg/L					0.1	U
Tin	6020	mg/L	0.001	U				
Titanium	6010C	mg/L					0.01	U
Titanium	6020	mg/L	0.002	U				
Toluene	8260B	µg/L	1	U			1	U
Total EFH (C8-C40)	8015B EFH	mg/L					0.26	U
trans-1,2-Dichloroethene	8260B	µg/L	1	U			1	U
trans-1,3-Dichloropropene	8260B	µg/L	1	U			3	U
Trichloroethene	8260B	µg/L	1	U			1	U
Trichlorofluoromethane	8260B	µg/L	1	U			2	U
Triethylene Glycol	8015C	mg/L					10	U
Vanadium	6020	mg/L	0.001	U				
Vanadium	6020A	mg/L					0.005	U
Vinyl Acetate	8260B	µg/L	1	U			3	U
Vinyl Chloride	8260B	µg/L	1	U			1	U
Zinc	6020	mg/L	0.02	U				
Zinc	6020A	mg/L					0.01	U
Zirconium	6010C	mg/L					0.015	U
Zirconium	6020	mg/L	0.005	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

		Sample Name:	FB-060512		FB-060512		FB-062012		FB-062012		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		06/20/2012		06/20/2012		11/14/2012	
		Sample Type:	FB		FB		FB		FB		FB	
		Lab:	EMAX		LL		EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1,1-Trichloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	1.0	U			1.0	U			3.0	U
1,1,2-Trichloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1'-Biphenyl	8270C SIM	µg/L	2.2	U			2.0	U				
1,1-Dichloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1-Dichloroethene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,1-Dichloropropene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.60	U			1.05	J	50	U
1,2,3,4,7,8-HXCDF	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,6,7,8-HXCDF	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,7,8,9-HXCDF	1613B	pg/L			9.60	U			9.83	U	50	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L			0.142	J			9.83	U	50	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L			9.60	U			0.970	J	50	U
1,2,3-Trichlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2,3-Trichloropropane	8260B	µg/L	2.0	U			2.0	U			2.5	U
1,2,4-Trichlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2,4-Trichlorobenzene	8270C	µg/L	11	UJ			10	U				
1,2,4-Trimethylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	2.0	U			2.0	U			5.0	U
1,2-Dibromoethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2-Dichlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2-Dichlorobenzene	8270C	µg/L	11	UJ			10	U				
1,2-Dichloroethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2-Dichloropropane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,2-Diphenylhydrazine	8270C	µg/L	11	UJ			10	U				
1,3,5-Trimethylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,3,5-Trinitrobenzene	8330A	µg/L	0.60	U			0.60	U			1.1	U
1,3-Dichlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,3-Dichlorobenzene	8270C	µg/L	11	UJ			10	U				
1,3-Dichloropropane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,3-Dichloropropylene	8260B	µg/L									1.0	U
1,4-Dichlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
1,4-Dichlorobenzene	8270C	µg/L	11	UJ			10	U				
1,4-Dioxane	8260B SIM	µg/L	2.0	U			2.0	U			1.0	U
1-Chlorohexane	8260B	µg/L	1.0	U			1.0	U			1.0	U
1-Methylnaphthalene	8270C SIM	µg/L	0.22	U			0.20	U			0.010	J
2,2-Dichloropropane	8260B	µg/L	1.0	U			1.0	U			1.0	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	0.80	U			0.80	U			2.1	U
2,3,4,6,7,8-HXCDF	1613B	pg/L			9.60	U			9.83	U	50	U
2,3,4,7,8-PECDF	1613B	pg/L			9.60	U			9.83	U	50	U
2,3,7,8-TCDD	1613B	pg/L			1.92	U			1.97	U	0.20	J
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L			0.208	J			1.97	U	10	U
2,4,5-T	8151A	µg/L	0.80	U			0.80	U			1.0	U
2,4,5-Trichlorophenol	8270C	µg/L	11	UJ			10	U				
2,4,6-Trichlorophenol	8270C	µg/L	11	UJ			10	U				
2,4,6-Trinitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.14	J
2,4-D	8151A	µg/L	0.80	U			0.80	U			4.1	U
2,4-DB	8151A	µg/L	0.80	U			0.80	U			4.1	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L	2.0	U			2.0	U			1.1	U
2,4-Dichlorophenol	8270C	µg/L	11	UJ			10	U				
2,4-Dimethylphenol	8270C	µg/L	11	UJ			10	U				
2,4-Dinitrophenol	8270C	µg/L	21	UJ			20	U				
2,4-Dinitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.43	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L	2.0	U			2.0	U			1.1	U
2,6-Dinitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.21	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.21	UJ
2-Butanone (MEK)	8260B	µg/L	10	U			6.2	J			6.0	U
2-butoxyethanol	8270C	µg/L	11	UJ			10	U				
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	1.0	U			1.0	U			5.0	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	2.0	U			2.0	U			3.0	U
2-Chloronaphthalene	8270C	µg/L	11	UJ			10	U				
2-Chlorophenol	8270C	µg/L	11	UJ			10	UJ				
2-Chlorotoluene	8260B	µg/L	1.0	U			1.0	U			1.0	U
2-Hexanone	8260B	µg/L	10	U			10	U			5.0	U
2-Methylnaphthalene	8270C SIM	µg/L	0.22	U			0.20	U			0.013	J
2-Methylphenol	8270C	µg/L	11	UJ			10	U				
2-Nitroaniline	8270C	µg/L	11	UJ			10	U				
2-Nitrophenol	8270C	µg/L	11	UJ			10	U				
2-Nitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.43	U
2-phenoxyethanol	8270C	µg/L	11	UJ			10	U				
2-Phenylbutane	8260B	µg/L	1.0	U			1.0	U			1.0	U
2-Propanol	8015B	µg/L	1000	U			1000	U				
2-Propanol	8015C	µg/L									1000	U
3,3'-Dichlorobenzidine	8270C	µg/L	11	UJ			10	UJ				
3,5-Dimethylphenol	8270C	µg/L	21	UJ			20	U				
3-Nitroaniline	8270C	µg/L	11	UJ			10	U				
3-Nitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.43	U
4,4'-DDD	8081A	µg/L	0.10	U			0.099	U				
4,4'-DDD	8081B	µg/L									0.051	U
4,4'-DDE	8081A	µg/L	0.10	U			0.099	U				
4,4'-DDE	8081B	µg/L									0.051	U
4,4'-DDT	8081A	µg/L	0.10	U			0.099	U				
4,4'-DDT	8081B	µg/L									0.051	U
4,6-Dinitro-2-methylphenol	8270C	µg/L	21	UJ			20	U				
4-Amino-2,6-Dinitrotoluene	8330A	µg/L	0.60	U			0.60	U			0.21	U
4-Bromophenyl-phenylether	8270C	µg/L	11	UJ			10	U				
4-Chloro-3-methylphenol	8270C	µg/L	11	UJ			10	U				
4-Chloroaniline	8270C	µg/L	11	UJ			10	UJ				
4-Chlorophenyl-phenylether	8270C	µg/L	11	U			10	U				
4-Chlorotoluene	8260B	µg/L	1.0	U			1.0	U			1.0	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U			10	U			5.0	U
4-Methylphenol	8270C	µg/L	11	UJ			10	U				
4-Nitroaniline	8270C	µg/L	11	UJ			10	U				
4-Nitrophenol	8270C	µg/L	21	UJ			20	U				
4-Nitrotoluene	8330A	µg/L	0.60	U			0.60	U			1.1	U
Acenaphthene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Acenaphthylene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Acetone	8260B	µg/L	26				10	U			10	U
Acrolein	8260B	µg/L	10	U			10	U			20	U
Acrylonitrile	8260B	µg/L	10	U			10	U			20	U
Aldrin	8081A	µg/L	0.10	U			0.099	U				
Aldrin	8081B	µg/L									0.051	U
Alpha-Bhc	8081A	µg/L	0.10	U			0.099	U				
Alpha-Bhc	8081B	µg/L									0.051	U
Aluminum	6010C	mg/L									0.10	U
Aluminum	6020	mg/L	0.0270	J			0.0271	J				
Aniline	8270C	µg/L	21	UJ			20	UJ				
Anthracene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Antimony	6020	mg/L	0.00100	U			0.00100	U				
Antimony	6020A	mg/L									0.0020	U
Aroclor 1016	8082	µg/L	1.0	U			0.99	U				
Aroclor 1016	8082A	µg/L									1.0	U
Aroclor 1221	8082	µg/L	1.0	U			0.99	U				
Aroclor 1221	8082A	µg/L									1.0	U
Aroclor 1232	8082	µg/L	1.0	U			0.99	U				
Aroclor 1232	8082A	µg/L									1.0	U
Aroclor 1242	8082	µg/L	1.0	U			0.99	U				
Aroclor 1242	8082A	µg/L									1.0	U
Aroclor 1248	8082	µg/L	1.0	U			0.99	U				
Aroclor 1248	8082A	µg/L									1.0	U
Aroclor 1254	8082	µg/L	1.0	U			0.99	U				
Aroclor 1254	8082A	µg/L									1.0	U
Aroclor 1260	8082	µg/L	1.0	U			0.99	U				
Aroclor 1260	8082A	µg/L									1.0	U
Aroclor 1262	8082	µg/L	1.0	U			0.99	U				

		Sample Name:	FB-060512		FB-060512		FB-062012		FB-062012		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		06/20/2012		06/20/2012		11/14/2012	
		Sample Type:	FB		FB		FB		FB		FB	
		Lab:	EMAX		LL		EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1262	8082A	µg/L									1.0	U
Aroclor 1268	8082	µg/L	1.0	U			0.99	U				
Aroclor 1268	8082A	µg/L									1.0	U
Aroclor 5432	8082	µg/L	2.0	U			2.0	U				
Aroclor 5432	8082A	µg/L									0.51	U
Aroclor 5442	8082	µg/L	2.0	U			2.0	U				
Aroclor 5442	8082A	µg/L									0.51	U
Aroclor 5460	8082	µg/L	2.0	U			2.0	U				
Aroclor 5460	8082A	µg/L									0.51	U
Arsenic	6020	mg/L	0.00100	U			0.00100	U				
Arsenic	6020A	mg/L									0.0050	U
Azobenzene	8270C SIM	µg/L	1.1	U			1.0	U				
BAP TEQ	BAP EQUIVALENCE	µg/L									0.00010	U
Barium	6020	mg/L	0.00100	U			0.00100	U				
Barium	6020A	mg/L									0.0010	U
Benzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Benzidine	8270C	µg/L	53	UJ								
Benzo(a)anthracene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Benzo(a)pyrene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Benzo(b)fluoranthene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Benzo(e)pyrene	8270C SIM	µg/L	0.22	U			0.20	U				
Benzo(g,h,i)perylene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Benzo(k)fluoranthene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Benzoic Acid	8270C	µg/L	42	UJ			41	U				
Benzyl Alcohol	8270C	µg/L	11	UJ			10	U				
Beryllium	6020	mg/L	0.00100	U			0.00100	U				
Beryllium	6020A	mg/L									0.0010	U
Beta-Bhc	8081A	µg/L	0.10	U			0.099	U				
Beta-Bhc	8081B	µg/L									0.051	U
bis(2-chloroethoxy)methane	8270C	µg/L	11	UJ			10	U				
bis(2-chloroethyl) ether	8270C	µg/L	11	UJ			10	U				
bis(2-chloroisopropyl) ether	8270C	µg/L	11	UJ			10	U				
Bis(2-ethylhexyl)phthalate	8270C	µg/L	21	UJ			20	U				
Boron	6010C	mg/L									0.10	U
Boron	6020	mg/L	0.0100	U			0.00916	J				
Bromobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Bromochloromethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
Bromodichloromethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
Bromoform	8260B	µg/L	1.0	U			1.0	U			1.0	U
Bromomethane	8260B	µg/L	1.0	U			1.0	U			2.0	U
Butylbenzylphthalate	8270C	µg/L	11	UJ			10	U				
Cadmium	6020	mg/L	0.00100	U			0.00100	U				
Cadmium	6020A	mg/L									0.0010	U
Calcium	6010C	mg/L									0.20	U
Calcium	6020	mg/L	0.0263	J			0.0438	J				
Carbazole	8270C	µg/L	11	UJ			10	U				
Carbon Disulfide	8260B	µg/L	1.0	U			1.0	U			2.0	U
Carbon Tetrachloride	8260B	µg/L	1.0	U			1.0	U			1.0	U
Chlordane (Technical)	8081A	µg/L	1.0	U			0.99	U				
Chlordane (Technical)	8081B	µg/L									0.51	U
Chlorobenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Chloroethane	8260B	µg/L	1.0	U			1.0	U			2.0	U
Chloroform	8260B	µg/L	1.0	U			1.0	U			1.0	U
Chloromethane	8260B	µg/L	1.0	U			1.0	U			2.0	U
Chlorotrifluoroethylene	8260B	µg/L	1.0	U			1.0	U			5.0	U
Chromium	6020	mg/L	0.00100	U			0.00100	U				
Chromium	6020A	mg/L									0.0020	U
Chromium (Hexavalent Compounds)	7199	µg/L	0.200	U			0.200	U			2.0	U
Chrysene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
cis-1,2-Dichloroethene	8260B	µg/L	1.0	U			1.0	U			1.0	U
cis-1,3-Dichloropropene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Cobalt	6020	mg/L	0.00100	U			0.00100	U				
Cobalt	6020A	mg/L									0.0010	U
Copper	6020	mg/L	0.000954	J			0.00112					
Copper	6020A	mg/L									0.0020	U
Cymene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Delta-Bhc	8081A	µg/L	0.10	U			0.099	U				
Delta-Bhc	8081B	µg/L									0.051	U
Di isopropyl Ether	8260B	µg/L	1.0	U			1.0	U			10	U
Dibenzo(a,h)anthracene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Dibenzofuran	8270C	µg/L	11	UJ			10	U				
Dibromochloromethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
Dibromomethane	8260B	µg/L	1.0	U			1.0	U			1.0	U
Dicamba	8151A	µg/L	0.80	U			0.80	U			2.1	U
Dichlorodifluoromethane	8260B	µg/L	1.0	U			1.0	U			2.0	U
Dichlorprop	8151A	µg/L	0.80	U			0.80	U			4.1	U
Dieldrin	8081A	µg/L	0.10	U			0.099	U				
Dieldrin	8081B	µg/L									0.051	U
Diethylene Glycol	8015C	mg/L									10	U
Diethylene Glycol	8015M	mg/L	10	U			10	U				
Diethylphthalate	8270C	µg/L	11	UJ			10	U				
Dimethylphthalate	8270C	µg/L	11	UJ			10	U				
Di-n-butylphthalate	8270C	µg/L	11	UJ			10	U				
Dinitrobutyl Phenol	8151A	µg/L	0.80	U			0.80	U			1.0	U
Di-n-octylphthalate	8270C	µg/L	11	UJ			10	U				
EFH (C12-C14)	8015B EFH	mg/L	0.11	U			0.097	U			0.26	U
EFH (C15-C20)	8015B EFH	mg/L	0.11	U			0.097	U			0.26	U
EFH (C21-C30)	8015B EFH	mg/L	0.11	U			0.097	U			0.26	U
EFH (C30-C40)	8015B EFH	mg/L	0.11	U			0.097	U			0.26	U
EFH (C8-C11)	8015B EFH	mg/L	0.11	U			0.097	U			0.26	U
Endosulfan I	8081A	µg/L	0.10	U			0.099	U				
Endosulfan I	8081B	µg/L									0.051	U
Endosulfan II	8081A	µg/L	0.10	U			0.099	U				
Endosulfan II	8081B	µg/L									0.051	U
Endosulfan Sulfate	8081A	µg/L	0.10	U			0.099	U				
Endosulfan Sulfate	8081B	µg/L									0.051	U
Endrin	8081A	µg/L	0.10	U			0.099	U				
Endrin	8081B	µg/L									0.051	U
Endrin Aldehyde	8081A	µg/L	0.10	U			0.099	U				
Endrin Aldehyde	8081B	µg/L									0.051	U
Endrin Ketone	8081A	µg/L	0.10	U			0.099	U				
Endrin Ketone	8081B	µg/L									0.051	U
Ethanol	8015B	µg/L	1000	U			1000	U				
Ethanol	8015C	µg/L									1000	U
Ethylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Ethylene Glycol	8015C	mg/L									10	U
Ethylene Glycol	8015M	mg/L	10	U			10	U				
Fluoranthene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Fluorene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Formaldehyde	8315A	µg/L			12	J			50	UJ	50	U
Gamma-Bhc (Lindane)	8081A	µg/L	0.10	U			0.099	U				
Gamma-Bhc (Lindane)	8081B	µg/L									0.051	U
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L									25	U
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L	49	J			28	J				
Heptachlor	8081A	µg/L	0.10	U			0.099	U				
Heptachlor	8081B	µg/L									0.051	U
Heptachlor Epoxide	8081A	µg/L	0.10	U			0.099	U				
Heptachlor Epoxide	8081B	µg/L									0.051	U
Hexachloro-1,3-butadiene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Hexachlorobenzene	8270C	µg/L	11	UJ			10	U				
Hexachlorobutadiene	8270C	µg/L	11	UJ			10	U				
Hexachlorocyclopentadiene	8270C	µg/L	21	UJ			20	U				
Hexachloroethane	8270C	µg/L	11	UJ			10	U				
HMX	8330A	µg/L	0.60	U			0.60	U			0.43	U
Indeno(1,2,3-cd)pyrene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
Iron	6010C	mg/L									0.10	U
Iron	6020	mg/L	0.100	U			0.100	U				
Isophorone	8270C	µg/L	11	UJ			10	U				
Isopropylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Lead	6020	mg/L	0.00100	U			0.00100	U				
Lead	6020A	mg/L									0.0010	U
Lithium	6010C	mg/L									0.010	U

		Sample Name:	FB-060512		FB-060512		FB-062012		FB-062012		FB-111412	
		Location:	5C_DG-FB		5C_DG-FB		5C_DG-FB		5C_DG-FB		FIELD BLANK	
		Sample Date:	06/05/2012		06/05/2012		06/20/2012		06/20/2012		11/14/2012	
		Sample Type:	FB		FB		FB		FB		FB	
		Lab:	EMAX		LL		EMAX		LL		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Lithium	6020	mg/L	0.00200	U			0.00200	U				
m,p-Xylene	8260B	µg/L	2.0	U			2.0	U			2.0	U
Magnesium	6010C	mg/L									0.20	U
Magnesium	6020	mg/L	0.100	U			0.100	U				
Manganese	6010C	mg/L									0.010	U
Manganese	6020	mg/L	0.00100	U			0.00100	U				
MCPA	8151A	µg/L	100	U			100	U			410	U
MCPP	8151A	µg/L	100	U			100	U			410	U
M-Dinitrobenzene	8330A	µg/L	0.60	U			0.60	U			0.43	U
Mercury	7470A	mg/L	0.000500	U			0.000500	U			0.00020	U
Methanol	8015B	µg/L	1000	U			1000	U				
Methanol	8015C	µg/L									1000	U
Methoxychlor	8081A	µg/L	1.0	U			0.99	U				
Methoxychlor	8081B	µg/L									0.10	U
Methyl Iodide	8260B	µg/L	1.0	U			1.0	U			1.0	U
Methyl Tert-Butyl Ether	8260B	µg/L	1.0	U			1.0	U			5.0	U
Methylene Chloride	8260B	µg/L	1.0	U			4.1				2.0	U
Mirex	8081A	µg/L	0.10	U			0.099	U				
Mirex	8081B	µg/L									0.051	U
Molybdenum	6020	mg/L	0.00200	U			0.00200	U				
Molybdenum	6020A	mg/L									0.0020	U
Morpholine	8270C SIM	µg/L									40	U
m-Terphenyl	8015B	mg/L			0.26	U			0.25	U	0.0049	U
Naphthalene	8270C SIM	µg/L	0.22	U			0.26				0.054	J
n-Butylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Nickel	6020	mg/L	0.00100	U			0.00100	U				
Nickel	6020A	mg/L									0.0020	U
Nitrobenzene	8270C	µg/L	11	UJ			10	U				
Nitrobenzene	8330A	µg/L	0.60	U			0.60	U			0.36	J
Nitroglycerin	8330A	µg/kg									100000000	U
Nitroglycerin	8332	µg/L	250	U			250	U				
N-Nitrosodimethylamine	8270C SIM	µg/L	1.1	U			1.0	U			0.40	U
N-Nitrosodimethylamine	8270C SIM	ug/l	1.1	U			1.0	U			0.40	U
N-Nitroso-di-n-propylamine	8270C	µg/L	11	UJ			10	U				
N-Nitrosodiphenylamine	8270C	µg/L	11	UJ			10	U				
n-Propylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
OCDD	1613B	pg/L			19.2	U			19.7	U	100	U
OCDF	1613B	pg/L			19.2	U			19.7	U	100	U
o-Terphenyl	8015B	mg/L			0.26	U			0.25	U	0.0049	U
o-Xylene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Pentachlorophenol	8270C	µg/L	21	UJ			20	U				
Perchlorate	6850	µg/L	0.200	U			0.200	U				
Perchlorate	6860	µg/L									0.050	U
PETN	8330A	µg/kg									100000000	U
PETN	8332	µg/L	250	U			250	U				
pH	9040C	pH	5.70				5.87				5.81	
Phenanthrene	8270C SIM	µg/L	0.22	U			0.20	U			0.025	J
Phenol	8270C	µg/L	11	UJ			10	U				
Phosphorus	6010C	mg/L									3.0	U
Phosphorus	6020	mg/L	0.0500	U			0.0500	U				
Potassium	6010C	mg/L									3.0	U
Potassium	6020	mg/L	0.100	U			0.100	U				
Propylene Glycol	8015C	mg/L									10	U
Propylene Glycol	8015M	mg/L	10	U			10	U				
p-Terphenyl	8015B	mg/L			0.26	U			0.25	U	0.0049	U
Pyrene	8270C SIM	µg/L	0.22	U			0.20	U			0.10	U
RDX	8330A	µg/L	0.60	U			0.60	U			0.21	U
Selenium	6020	mg/L	0.00100	U			0.00100	U				
Selenium	6020A	mg/L									0.0050	U
Silver	6020	mg/L	0.00100	U			0.00100	U				
Silver	6020A	mg/L									0.00078	J
Silvex (2,4,5-TP)	8151A	µg/L	0.80	U			0.80	U			1.0	U
Sodium	6010C	mg/L									1.0	U
Sodium	6020	mg/L	0.100	U			0.100	U				
Strontium	6010C	mg/L									0.010	U
Strontium	6020	mg/L	0.00200	U			0.00200	U				
Styrene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Technical Toxaphene	8081A	µg/L	2.0	U			2.0	U				
Technical Toxaphene	8081B	µg/L									2.1	U
Temperature	9040C	deg C									20.0	
tert-Butyl ethyl ether	8260B	µg/L	1.0	U			1.0	U			5.0	U
tert-Butylbenzene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Tertiary amyl methyl ether	8260B	µg/L	1.0	U			1.0	U			5.0	U
Tertiary butyl alcohol	8260B	µg/L	10	U			10	U			50	U
Tetrachloroethene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Tetralin	8270C	µg/L	11	UJ			10	U				
Tetryl	8330A	µg/L	0.60	U			0.60	U			0.21	U
Thallium	6020	mg/L	0.00100	U			0.00100	U				
Thallium	6020A	mg/L									0.0010	U
Tin	6010C	mg/L									0.10	U
Tin	6020	mg/L	0.00100	U			0.00100	U				
Titanium	6010C	mg/L									0.010	U
Titanium	6020	mg/L	0.00200	U			0.00200	U				
Toluene	8260B	µg/L	1.0	U			0.29	J			1.0	U
Total EFH (C8-C40)	8015B EFH	mg/L									0.26	U
trans-1,2-Dichloroethene	8260B	µg/L	1.0	U			1.0	U			1.0	U
trans-1,3-Dichloropropene	8260B	µg/L	1.0	U			1.0	U			3.0	U
Trichloroethene	8260B	µg/L	1.0	U			1.0	U			1.0	U
Trichlorofluoromethane	8260B	µg/L	1.0	U			1.0	U			2.0	U
Triethylene Glycol	8015C	mg/L									10	U
Vanadium	6020	mg/L	0.00100	U			0.00100	U				
Vanadium	6020A	mg/L									0.0050	U
Vinyl Acetate	8260B	µg/L	1.0	U			1.0	U			3.0	U
Vinyl Chloride	8260B	µg/L	1.0	U			1.0	U			1.0	U
Zinc	6020	mg/L	0.0200	U			0.0200	U				
Zinc	6020A	mg/L									0.010	U
Zirconium	6010C	mg/L									0.015	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

Table C6 - Subarea 3 - Trip Blank Samples

		Sample Name:	TB-111912		TB-121812	
		Location:	TRIP BLANK		TRIP BLANK	
		Sample Date:	11/19/2012		12/18/2012	
		Sample Type:	TB		TB	
		Lab:	Test America		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L	25	U		
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L			29	J

Notes:

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C7 - Subarea 6 - Trip Blanks

		Sample Name:	TB-111312		TB-111412		TB-112012		TB-112612		TB-112712		TB-112812		TB-112912		TB-113012		TB-120312	
		Location:	TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK	
		Sample Date:	11/13/2012		11/14/2012		11/20/2012		11/26/2012		11/27/2012		11/28/2012		11/29/2012		11/30/2012		12/03/2012	
		Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB	
		Lab:	Test America		Test America		Test America		Test America		Test America		Test America		Test America		Test America		Test America	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L	25	U	25	U	25	U	12	J	25	U	25	U	25	U	25	U	25	U
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L																		

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C7 - Subarea 6 - Trip Blanks

		Sample Name:	TB-120412		TB-120512		TB-120612		TB-120712		TB-121012		TB-121112		TB-121212		TB-121312		TB-121412	
		Location:	TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK		TRIP BLANK	
		Sample Date:	12/04/2012		12/05/2012		12/06/2012		12/07/2012		12/10/2012		12/11/2012		12/12/2012		12/13/2012		12/14/2012	
		Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB	
		Lab:	Test America		Test America		EMAX		EMAX		Test America		EMAX		EMAX		EMAX		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L	25	U	25	U					10	J								
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L					36	J	17	J			50	U	12	J	20	J	50	U

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C7 - Subarea 6 - Trip Blanks

		Sample Name:	TB-121712		TB-121812		TB-121912	
		Location:	TRIP BLANK		TRIP BLANK		TRIP BLANK	
		Sample Date:	12/17/2012		12/18/2012		12/19/2012	
		Sample Type:	TB		TB		TB	
		Lab:	EMAX		EMAX		EMAX	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C4-C12)	8015B GRO	µg/L						
Gasoline Range Organics (C5-C12)	8015B GRO	µg/L	11	J	29	J	28	J

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

				Location	3_DG-507		3_DG-507		RPD	3_DG-507		3_DG-507		RPD
				Sample Name:	SL-907-SA3-SB-3.0-4.0		SL-507-SA3-SB-3.0-4.0			SL-907-SA3-SB-3.5		SL-507-SA3-SB-3.5		
				Sample Date	12/18/2012		12/18/2012			12/18/2012		12/18/2012		
				Start Depth:	3		3			3.5		3.5		
				End Depth:	4		4			3.5		3.5		
				Area:	3_DG		3_DG			3_DG		3_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit										
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	1.5	J	7.2	J	131.03					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	0.33	J	1.6	J	131.61					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.3	U	5.6	U	--					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.3	UJ	0.096	J	200.00					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.3	UJ	5.6	UJ	--					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.3	UJ	0.22	J	200.00					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.3	UJ	0.16	J	200.00					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.3	UJ	0.27	J	200.00					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.3	U	5.6	U	--					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.3	U	5.6	U	--					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.3	U	5.6	U	--					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.3	U	5.6	U	--					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.3	UJ	0.098	J	200.00					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	U	1.1	U	--					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.1	U	1.1	U	--					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	29	J	78	J	91.59					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg	11	UJ	0.96	J	200.00					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.108	U	0.105	U	--					--
Metals	Aluminum	7429-90-5	6020	mg/kg	11600		13000		11.38					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.213	J	0.327	J	42.22					--
Metals	Arsenic	7440-38-2	6020	mg/kg	5.59		6.23		10.83					--
Metals	Barium	7440-39-3	6020	mg/kg	92.9	J	95.4	J	2.66					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.431	J	0.496	J	14.02					--
Metals	Boron	7440-42-8	6020	mg/kg	5.38	U	5.27	U	--					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.171	J	0.198	J	14.63					--
Metals	Calcium	7440-70-2	6020	mg/kg	3030		3250		7.01					--
Metals	Chromium	7440-47-3	6020	mg/kg	19.9		21.8		9.11					--
Metals	Cobalt	7440-48-4	6020	mg/kg	6.78		6.04		11.54					--
Metals	Copper	7440-50-8	6020	mg/kg	8.06		9.25		13.75					--
Metals	Iron	7439-89-6	6020	mg/kg	21400		24600		13.91					--
Metals	Lead	7439-92-1	6020	mg/kg	4.19	J	7.19	J	52.72					--
Metals	Lithium	7439-93-2	6020	mg/kg	29		28.1		3.15					--
Metals	Magnesium	7439-95-4	6020	mg/kg	6570	J	6520	J	0.76					--
Metals	Manganese	7439-96-5	6020	mg/kg	355		275		25.40					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.611		0.897		37.93					--
Metals	Nickel	7440-02-0	6020	mg/kg	10.9		11.9		8.77					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	463	J	472	J	1.93					--
Metals	Potassium	9/7/7440	6020	mg/kg	2730		2870		5.00					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.538	U	0.527	U	--					--
Metals	Silver	7440-22-4	6020	mg/kg	0.538	UJ	0.0578	J	200.00					--
Metals	Sodium	7440-23-5	6020	mg/kg	152		143		6.10					--
Metals	Strontium	7440-24-6	6020	mg/kg	13.9		15.5		10.88					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.261	J	0.28	J	7.02					--
Metals	Tin	7440-31-5	6020	mg/kg	10.8	U	10.5	U	--					--
Metals	Titanium	7440-32-6	6020	mg/kg	1230		1230		0.00					--
Metals	Vanadium	7440-62-2	6020	mg/kg	41.1		45		9.06					--
Metals	Zinc	7440-66-6	6020	mg/kg	54.2		60.4		10.82					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.38	U	5.27	U	--					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--					--
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.4	U	5.3	U	--					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.4	U	5.3	U	--					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.4	U	5.3	U	--					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	11	U	11	U	--					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	22	U	21	U	--					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	43	U	43	U	--					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	43	U	43	U	--					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	43	U	43	U	--					--
pH	pH	pH	9045D	pH	8		8.22		2.71					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.4	U	5.3	U	--					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.4	U	5.3	U	--					--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.4	U	5.3	U	--					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	5.4	UJ	13	J	200.00					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	11	UJ	5.8	J	200.00					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	5.4	UJ	19	J	200.00					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--	0.95	U	0.99	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.0-4.0		SL-507-SA6-SB-3.0-4.0		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	5.1	UJ	0.28	J	200.00
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	0.096	J	5.0	UJ	200.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.1	U	5.0	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.0	U	1.0	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.0	U	1.0	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	10	UJ	2.1	J	200.00
Dioxins	OCDF	39001-02-0	1613B	ng/kg	0.22	J	10	UJ	200.00
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.016	J	0.017	J	6.06
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg	16000	J	16000	J	0.00
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg	0.013	J	0.015	J	14.29
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg	9.8	J	9.8	J	0.00
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg	98	J	100	J	2.02
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg	0.69	J	0.75	J	8.33
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg	8.9	U	9.4	U	--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg	0.17	J	0.17	J	0.00
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg	2100		2100		0.00
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg	15	J	16	J	6.45
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg	6.1	J	6.1	J	0.00
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg	6.0	J	6.0	J	0.00
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg	18000		19000		5.41
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg	5.0	J	5.1	J	1.98
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg	23	J	23	J	0.00
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg	3900		4000		2.53
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg	290	J	270	J	7.14
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg	0.42	J	0.42	J	0.00
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg	11	J	11	J	0.00
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg	210		210		0.00
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg	2200	J	2100	J	4.65
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg	0.81		0.91		11.63
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg	0.73	U	0.82	U	--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg	120	J	110	J	8.70
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg	19		19		0.00
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg	0.24	J	0.25	J	4.08
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg	1.8	J	1.8	J	0.00
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg	840		860		2.35
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg	33	J	34	J	2.99
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg	45	J	46	J	2.20
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg	1.9	J	8.3	U	200.00
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	9.9	U	10	U	--

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.0-4.0		SL-507-SA6-SB-3.0-4.0		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg	0.0050	U	0.0050	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	51	U	50	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	51	U	50	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	51	U	50	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.88		7.40		6.28
Temperature	Temperature	TEMP	9045D	deg C	20.8		20.9		0.48
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.2	U	5.2	U	--

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.0-4.0		SL-507-SA6-SB-3.0-4.0		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	2.4	J	3.2	J	28.57
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	3.7	J	3.7	J	0.00
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	6.8		7.8		13.70
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.5		SL-507-SA6-SB-3.5		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg					--

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.5		SL-507-SA6-SB-3.5		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg					--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH					--
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg					--

				Location	6_DG-507		6_DG-507		RPD
				Sample Name:	SL-907-SA6-SB-3.5		SL-507-SA6-SB-3.5		
				Sample Date	11/28/2012		11/28/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg					--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg	0.91	UJ	0.51	J	200.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-518		6_DG-518		RPD
				Sample Name:	SL-918-SA6-SB-0.0-0.5		SL-518-SA6-SB-0.0-0.5		
				Sample Date	12/17/2012		12/17/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	10		16		46.15
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	1.1	J	2.4	J	74.29
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.4	UJ	0.14	J	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.28	J	0.44	J	44.44
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.4	UJ	0.17	J	200.00
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	U	1.1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.1	U	1.1	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	120		180		40.00
Dioxins	OCDF	39001-02-0	1613B	ng/kg	3.2	J	6.2	J	63.83
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.117	U	0.112	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	13800		12400		10.69
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.447	J	0.378	J	16.73
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	3.78		3.88		2.61
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	77.7		71.7		8.03
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.520	J	0.481	J	7.79
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.96	U	5.40	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.206	J	0.191	J	7.56
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	6720	J	6220	J	7.73
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	17.3		15.8		9.06
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	6.52		5.67		13.95
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	8.83		7.12		21.44
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	23100		21600		6.71
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	6.69		5.81		14.08
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	27.2		27.9		2.54
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	5720		5280		8.00
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	313		307		1.94
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.321	J	0.323	J	0.62
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	10.8		9.25		15.46
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	426		395		7.55
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	2650		2640		0.38
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.596	U	0.540	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.596	U	0.540	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	183	J	107	J	52.41
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	27.0	J	19.8	J	30.77
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.238	J	0.238	J	0.00
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.9	U	10.8	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	1340		1270		5.36
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	37.2		33.4		10.76
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	78.2	J	108	J	32.01
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.96	U	5.40	U	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	12	U	11	U	--

				Location	6_DG-518		6_DG-518		RPD
				Sample Name:	SL-918-SA6-SB-0.0-0.5		SL-518-SA6-SB-0.0-0.5		
				Sample Date	12/17/2012		12/17/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	6.0	U	5.6	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	12	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	6.0	U	5.6	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	3.9	J	3.9	J	0.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	12	UJ	2.9	J	200.00
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	6.0	U	5.6	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	12	UJ	3.0	J	200.00
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	12	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	12	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	12	U	11	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	24	U	22	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	48	U	45	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	48	U	45	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	30	J	35	J	15.38
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg	5.96	U	5.59	U	--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.23		7.58		4.73
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	6.0	U	5.6	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	6.0	U	5.6	U	--

				Location	6_DG-518		6_DG-518		RPD
				Sample Name:	SL-918-SA6-SB-0.0-0.5		SL-518-SA6-SB-0.0-0.5		
				Sample Date	12/17/2012		12/17/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	6.0	U	5.6	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	17	J	4.7	J	113.36
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	14	J	11	UJ	200.00
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	31	J	4.7	J	147.34
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.0-4.0		SL-542-SA6-SB-3.0-4.0		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	22		22		0.00
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	1.9	J	1.9	J	0.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.3	U	5.2	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.059	J	0.076	J	25.19
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.22	J	0.17	J	25.64
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.55	J	0.51	J	7.55
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.097	J	0.13	J	29.07
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.23	J	0.29	J	23.08
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.3	U	5.2	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.059	J	0.059	J	0.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.19	J	0.12	J	45.16
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.3	UJ	0.23	J	200.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.12	J	0.096	J	22.22
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	U	1.0	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.085	J	0.13	J	41.86
Dioxins	OCDD	3268-87-9	1613B	ng/kg	360		400		10.53
Dioxins	OCDF	39001-02-0	1613B	ng/kg	3.7	J	1.6	J	79.25
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg	1900	U	1900	U	--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg	1.12	U	1.11	U	--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.112	U	0.111	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	16700		16200		3.04
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.183	J	0.194	J	5.84
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	4.98		4.29		14.89
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	97.8	J	86.7	J	12.03
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.755		0.675		11.19
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.24	J	4.36	J	18.33
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.353	J	0.297	J	17.23
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	45500		36600		21.68
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	20.7	J	19.3	J	7.00
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	6.42	J	5.47	J	15.98
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	10.3		9.15		11.83
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	22600	J	20700	J	8.78
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	7.60		6.98		8.50
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	21.1		20.5		2.88
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	5270	J	4770	J	9.96
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	256		237		7.71
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.604		0.608		0.66
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	12.0		10.6		12.39
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	346		296		15.58
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3150		2810		11.41
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.558	U	0.546	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.558	U	0.546	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	195		183		6.35
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	101	J	84.3	J	18.02
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.273	J	0.245	J	10.81
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.2	U	10.9	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	825		847		2.63
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	40.1		36.7		8.85
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	66.0		62.5		5.45
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.58	UJ	5.46	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.0-4.0		SL-542-SA6-SB-3.0-4.0		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	8.21		8.38		2.05
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.6	U	5.6	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.6	U	5.6	U	--

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.0-4.0		SL-542-SA6-SB-3.0-4.0		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.6	U	5.6	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	11		6.7		48.59
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	11		12		8.70
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	22		19		14.63
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.5		SL-542-SA6-SB-3.5		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg					--

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.5		SL-542-SA6-SB-3.5		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg					--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH					--
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg					--

				Location	6_DG-542		6_DG-542		RPD
				Sample Name:	SL-942-SA6-SB-3.5		SL-542-SA6-SB-3.5		
				Sample Date	12/07/2012		12/07/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg					--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg	1.1	U	1.1	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-548		6_DG-548		RPD
				Sample Name:	SL-948-SA6-SB-0.0-0.5		SL-548-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	30	J	200	J	147.83
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.4	UJ	28	J	200.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.4	UJ	3.1	J	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.16	J	0.25	J	43.90
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.30	J	1.4	J	129.41
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.89	J	10	J	167.31
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.4	UJ	5.4	UJ	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.4	UJ	5.4	UJ	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.4	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.063	J	5.4	UJ	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.13	J	0.17	J	26.67
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.4	UJ	0.35	J	200.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.16	J	0.17	J	6.06
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	UJ	0.035	J	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.19	J	0.23	J	19.05
Dioxins	OCDD	3268-87-9	1613B	ng/kg	540	J	5400	J	163.64
Dioxins	OCDF	39001-02-0	1613B	ng/kg	6.0	J	18	J	100.00
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg	1900	U	1900	U	--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg	1.13	U	1.13	U	--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.111	U	0.113	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	16500		16600		0.60
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.170	J	0.158	J	7.32
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	4.61		4.53		1.75
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	97.7	J	101	J	3.32
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.724		0.718		0.83
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.60		5.71		1.95
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.297	J	0.317	J	6.51
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	43300	J	47800	J	9.88
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	20.7	J	21.6	J	4.26
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	6.48		6.97	J	7.29
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	9.60	J	10.9		12.68
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	23000	J	22400	J	2.64
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	7.54		7.73		2.49
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	22.0		22.0		0.00
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	5190		5220		0.58
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	263		289		9.42
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.588		0.557	J	5.41
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	11.7	J	13.4	J	13.55
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	380		363		4.58
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3450	J	3420	J	0.87
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.554	U	0.563	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.554	U	0.563	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	114	J	129	J	12.35
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	92.9		101	J	8.35
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.275	J	0.278	J	1.08
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.1	U	11.3	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	839		840		0.12
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	41.1	J	40.5	J	1.47
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	64.4		62.5		2.99
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.54	UJ	5.63	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-548		6_DG-548		RPD
				Sample Name:	SL-948-SA6-SB-0.0-0.5		SL-548-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.6	U	5.7	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.6	U	5.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	3.1	J	11	UJ	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	4.3	J	11	UJ	200.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	4.3	J	11	UJ	200.00
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.6	U	5.7	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	4.0	J	11	UJ	200.00
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	3.1	J	11	UJ	200.00
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	23	UJ	18	J	200.00
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	8.1		8.24		1.71
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.6	U	5.7	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.6	U	5.7	U	--

									RPD
				Location	6_DG-548		6_DG-548		
				Sample Name:	SL-948-SA6-SB-0.0-0.5		SL-548-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.6	U	5.7	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	3.8	J	4.4	J	14.63
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	11	U	11	U	--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	3.8	J	4.4	J	14.63
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-571		6_DG-571		RPD
				Sample Name:	SL-971-SA6-SB-4.0-5.0		SL-571-SA6-SB-4.0-5.0		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	0.63	J	8.4	J	172.09
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.2	UJ	5.2	UJ	--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.2	U	5.2	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.2	UJ	0.11	J	200.00
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.2	UJ	0.098	J	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.2	UJ	0.32	J	200.00
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.2	UJ	0.048	J	200.00
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.082	J	0.32	J	118.41
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.078	J	0.050	J	43.75
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.2	UJ	5.2	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.2	UJ	0.062	J	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.2	U	5.2	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.2	UJ	0.056	J	200.00
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.0	UJ	0.10	J	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.0	U	1.0	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	10	J	270	J	185.71
Dioxins	OCDF	39001-02-0	1613B	ng/kg	10	UJ	10	UJ	--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0095	J	0.0084	J	12.29
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg	15000	J	14000	J	6.90
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg	0.017	J	0.019	J	11.11
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg	4.4	J	4.4	J	0.00
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg	76	J	76	J	0.00
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg	0.62	J	0.61	J	1.63
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg	8.8	U	8.5	U	--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg	0.13	J	0.13	J	0.00
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg	1800		1900		5.41
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg	20	J	19	J	5.13
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg	5.7	J	5.6	J	1.77
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg	6.7	J	6.7	J	0.00
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg	18000		18000		0.00
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg	4.9	J	4.7	J	4.17
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg	25	J	25	J	0.00
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg	4600		4500		2.20
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg	270	J	270	J	0.00
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg	0.89	J	0.69	J	25.32
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg	13	J	12	J	8.00
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg	350		380		8.22
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg	2700	J	2600	J	3.77
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg	0.59	J	0.79		28.99
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg	0.79	U	0.76	U	--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg	150	J	140	J	6.90
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg	15		14		6.90
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg	0.27	J	0.27	J	0.00
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg	9.9	U	9.6	U	--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg	970		990		2.04
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg	36	J	35	J	2.82
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg	46	J	47	J	2.15
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg	1.5	J	1.4	J	6.90
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	9.8	U	10	U	--

				Location	6_DG-571		6_DG-571		RPD
				Sample Name:	SL-971-SA6-SB-4.0-5.0		SL-571-SA6-SB-4.0-5.0		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	9.8	U	10	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg	0.0050	U	0.0050	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	51	U	51	UJ	--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	51	U	51	UJ	--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	51	U	51	UJ	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.29		7.20		1.24
Temperature	Temperature	TEMP	9045D	deg C	20.2		20.4		0.99
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.1	U	5.1	U	--

									RPD
				Location	6_DG-571		6_DG-571		
				Sample Name:	SL-971-SA6-SB-4.0-5.0		SL-571-SA6-SB-4.0-5.0		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	10	U	10	U	--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	4.0	UJ	4.1	UJ	--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-571		6_DG-571		RPD
				Sample Name:	SL-971-SA6-SB-4.5		SL-571-SA6-SB-4.5		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4.5		4.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg					--

				Location	6_DG-571		6_DG-571		RPD
				Sample Name:	SL-971-SA6-SB-4.5		SL-571-SA6-SB-4.5		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4.5		4.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg					--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH					--
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg					--

				Location	6_DG-571		6_DG-571		RPD
				Sample Name:	SL-971-SA6-SB-4.5		SL-571-SA6-SB-4.5		
				Sample Date	12/03/2012		12/03/2012		
				Start Depth:	4.5		4.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg					--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg	1.1	U	1.0	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-573		6_DG-573		RPD
				Sample Name:	SL-973-SA6-SB-3.0-4.0		SL-573-SA6-SB-3.0-4.0		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	0.56	J	1.8	J	105.08
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	0.15	J	0.086	J	54.24
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.30	J	0.34	J	12.50
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.1	UJ	0.039	J	200.00
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.52	J	0.53	J	1.90
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.25	J	0.17	J	38.10
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.1	U	5.2	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.0	U	1.0	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.0	UJ	0.051	J	200.00
Dioxins	OCDD	3268-87-9	1613B	ng/kg	3.9	J	16	J	121.61
Dioxins	OCDF	39001-02-0	1613B	ng/kg	10	U	10	U	--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.024	U	0.023	U	--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg	13000	J	14000	J	7.41
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg	0.020	J	0.020	J	0.00
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg	2.9	J	2.9	J	0.00
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg	90	J	99	J	9.52
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg	0.46	J	0.54	J	16.00
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg	9.9	U	9.9	U	--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg	0.24	J	0.25	J	4.08
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg	2100		1900		10.00
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg	16	J	17	J	6.06
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg	5.4	J	5.6	J	3.64
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg	8.2	J	8.9	J	8.19
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg	17000		17000		0.00
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg	4.3	J	4.5	J	4.55
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg	21	J	22	J	4.65
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg	4200		4200		0.00
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg	310	J	310	J	0.00
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg	0.41	J	0.43	J	4.76
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg	11	J	12	J	8.70
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg	300		290		3.39
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg	3300	J	3200	J	3.08
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg	0.66		0.66	J	0.00
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg	0.74	U	0.81	U	--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg	120	J	130	J	8.00
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg	16		17		6.06
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg	0.27	J	0.27	J	0.00
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg	11	U	11	U	--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg	1000		960		4.08
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg	30	J	31	J	3.28
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg	51	J	51	J	0.00
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg	8.8	U	8.8	U	--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	10	U	10	U	--

				Location	6_DG-573		6_DG-573		RPD
				Sample Name:	SL-973-SA6-SB-3.0-4.0		SL-573-SA6-SB-3.0-4.0		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	10	U	10	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	0.34	J	10	UJ	200.00
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	10	U	10	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	10	U	10	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg	0.0050	U	0.0050	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	51	U	51	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	51	U	51	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	51	U	51	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.06		7.24		2.52
Temperature	Temperature	TEMP	9045D	deg C	21.5		21.5		0.00
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.0	U	5.0	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.0	U	5.0	U	--

									RPD
				Location	6_DG-573		6_DG-573		
				Sample Name:	SL-973-SA6-SB-3.0-4.0		SL-573-SA6-SB-3.0-4.0		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.0	U	5.0	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	5.0	U	5.0	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	10	U	10	U	--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	4.0	U	4.0	U	--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-573		6_DG-573		RPD
				Sample Name:	SL-973-SA6-SB-3.5		SL-573-SA6-SB-3.5		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg					--

				Location	6_DG-573		6_DG-573		RPD
				Sample Name:	SL-973-SA6-SB-3.5		SL-573-SA6-SB-3.5		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg					--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH					--
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg					--

				Location	6_DG-573		6_DG-573		RPD
				Sample Name:	SL-973-SA6-SB-3.5		SL-573-SA6-SB-3.5		
				Sample Date	11/30/2012		11/30/2012		
				Start Depth:	3.5		3.5		
				End Depth:	3.5		3.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg					--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg	0.96	U	1.1	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-585		6_DG-585		RPD
				Sample Name:	SL-985-SA6-SB-0.0-0.5		SL-585-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	170		130		26.67
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	30		24		22.22
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	2.5	J	2.0	J	22.22
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	2.9	J	2.3	J	23.08
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	2.4	J	1.7	J	34.15
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	6.6		4.9	J	29.57
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	1.7	J	1.6	J	6.06
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	7.4		5.6	J	27.69
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.7	U	5.7	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.44	J	0.37	J	17.28
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	1.5	J	1.2	J	22.22
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.89	J	0.73	J	19.75
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.68	J	0.47	J	36.52
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.094	J	0.16	J	51.97
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.54	J	0.51	J	5.71
Dioxins	OCDD	3268-87-9	1613B	ng/kg	2500		2200		12.77
Dioxins	OCDF	39001-02-0	1613B	ng/kg	69		53		26.23
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.116	U	0.118	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	12300		13300		7.81
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.293	J	0.250	J	15.84
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	4.03		4.11		1.97
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	91.6		94.9		3.54
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.511	J	0.530	J	3.65
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.74	U	5.82	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.378	J	0.340	J	10.58
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	2340		2560		8.98
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	21.4		22.2		3.67
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	5.60		5.69		1.59
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	12.3		11.8		4.15
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	20000		20100		0.50
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	37.9		29.0		26.61
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	19.7		21.4		8.27
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	4350		4740		8.58
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	230		256		10.70
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.630		0.613		2.74
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	11.8		12.5		5.76
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	426		501	J	16.18
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3070		3200		4.15
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.574	U	0.582	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.574	U	0.582	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	90.4	J	83.0	J	8.54
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	17.3		18.1		4.52
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.230	J	0.246	J	6.72
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.5	U	11.6	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	923		946		2.46
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	34.9		35.4		1.42
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	113		102		10.23
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.74	U	5.82	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	12	U	12	U	--

				Location	6_DG-585		6_DG-585		RPD
				Sample Name:	SL-985-SA6-SB-0.0-0.5		SL-585-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.9	U	5.9	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	12	U	12	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	12	UJ	5.1	J	200.00
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.9	U	5.9	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	5.5	J	16	J	97.67
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	9.1	J	20	J	74.91
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	13	J	27	J	70.00
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	8.5	J	16	J	61.22
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	9.1	J	17	J	60.54
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	3.2	J	8.9	J	94.21
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	9.4	J	23	J	83.95
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	12	UJ	5.5	J	200.00
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	19	J	44	J	79.37
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	6.4	J	12	J	60.87
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	12	U	12	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	8.2	J	28	J	109.39
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	15	J	42	J	94.74
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	24	J	24	UJ	200.00
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	23	U	24	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	47	U	48	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	47	U	48	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	78	J	48	UJ	200.00
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	6.75		6.42		5.01
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.9	U	5.9	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.9	U	5.9	U	--

Table C9 - Subarea 6 - Field Duplicate Results

				Location	6_DG-585		6_DG-585		RPD
				Sample Name:	SL-985-SA6-SB-0.0-0.5		SL-585-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.9	U	5.9	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	17	J	31	J	58.33
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	22		33		40.00
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	39		64		48.54
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-3.5-4.5		SL-586-SA6-SB-3.5-4.5		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	3.5		3.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.091	J	5.4	UJ	200.00
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.1	UJ	0.096	J	200.00
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.069	J	5.4	UJ	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.1	U	5.4	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.0	U	1.1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.0	U	1.1	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	4.5	J	4.5	J	0.00
Dioxins	OCDF	39001-02-0	1613B	ng/kg	10	UJ	11	UJ	--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	100	U	100	U	--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	21	U	21	U	--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	41	U	41	U	--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	83	UJ	14	J	200.00
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	2.8	J	41	UJ	200.00
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	41	U	41	U	--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg	6700	UJ	5000	J	200.00
Herbicides	MCPP	93-65-2	8151A	µg/kg	6700	U	6700	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	21	U	21	U	--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0071	J	0.024	UJ	200.00
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg	17000	J	18000	J	5.71
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg	8.2	UJ	9.1	UJ	--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg	4.2	J	4.7	J	11.24
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg	120	J	120	J	0.00
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg	0.69	J	0.88	J	24.20
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg	9.1	U	9.4	U	--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg	0.25	J	0.24	J	4.08
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg	1900		2000		5.13
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg	24	J	26	J	8.00
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg	7.0	J	7.4	J	5.56
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg	12	J	12	J	0.00
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg	20000		21000		4.88
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg	6.4	J	6.9	J	7.52
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg	22	J	24	J	8.70
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg	4200		4500		6.90
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg	280	J	290	J	3.51
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg	0.42	J	0.42	J	0.00
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg	17	J	17	J	0.00
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg	260		260		0.00
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg	2800	J	2900	J	3.51
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg	1.0		1.0		0.00
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg	0.75	U	0.83	U	--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg	130	J	110	J	16.67
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg	18		19		5.41
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg	0.29	J	0.31	J	6.67
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg	3.2	J	3.6	J	11.76
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg	840		920		9.09
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg	40	J	43	J	7.23
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg	57	J	60	J	5.13
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg	2.3	J	2.6	J	12.24
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	9.9	U	10	U	--

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-3.5-4.5		SL-586-SA6-SB-3.5-4.5		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	3.5		3.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	9.9	UJ	1.7	J	200.00
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	9.9	UJ	8.5	J	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	9.9	UJ	7.0	J	200.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	9.9	UJ	7.6	J	200.00
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	9.9	UJ	6.8	J	200.00
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	9.9	UJ	7.9	J	200.00
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	9.9	UJ	9.2	J	200.00
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	9.9	UJ	6.5	J	200.00
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	9.9	UJ	5.0	J	200.00
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	9.9	UJ	6.8	J	200.00
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	0.32	J	10	UJ	200.00
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	9.9	U	10	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	9.9	UJ	1.4	J	200.00
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	9.9	UJ	3.1	J	200.00
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg	0.0050	U	16		200.00
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	52	U	51	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	52	U	51	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	52	U	51	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg	18	U	17	U	--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	3.4	U	3.4	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.9	U	6.8	U	--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	1.8	U	1.7	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	52	U	51	U	--
pH	pH	pH	9045D	pH	7.08		6.75		4.77
Temperature	Temperature	TEMP	9045D	deg C	22.1		22.2		0.45
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.1	U	5.1	U	--

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-3.5-4.5		SL-586-SA6-SB-3.5-4.5		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	3.5		3.5		
				End Depth:	4.5		4.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	2.0	J	1.5	J	28.57
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	3.0	J	2.3	J	26.42
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-4.0		SL-586-SA6-SB-4.0		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	4		4		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg					--

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-4.0		SL-586-SA6-SB-4.0		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	4		4		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg					--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg					--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH					--
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg					--

				Location	6_DG-586		6_DG-586		RPD
				Sample Name:	SL-986-SA6-SB-4.0		SL-586-SA6-SB-4.0		
				Sample Date	11/29/2012		11/29/2012		
				Start Depth:	4		4		
				End Depth:	4		4		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg					--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg					--
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg	1.0	U	1.0	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-599		6_DG-599		RPD
				Sample Name:	SL-999-SA6-SB-0.0-0.5		SL-599-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	1000	J	1800	J	57.14
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	140	J	260	J	60.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	12	J	22	J	58.82
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	10	J	18	J	57.14
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	6.7		11		48.59
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	43	J	73	J	51.72
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	11	J	21	J	62.50
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	27	J	46	J	52.05
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.46	J	0.70	J	41.38
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	1.5	J	1.9	J	23.53
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.3	J	9.3	J	54.79
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	4.1	J	7.8	J	62.18
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	1.5	J	2.0	J	28.57
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.3	J	2.2	J	51.43
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	2.2		2.4		8.70
Dioxins	OCDD	3268-87-9	1613B	ng/kg	12000	J	20000	J	50.00
Dioxins	OCDF	39001-02-0	1613B	ng/kg	260		230	J	12.24
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	11	U	11	U	--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	11	U	11	U	--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	11	U	11	U	--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg	11	U	11	U	--
Herbicides	MCPA	94-74-6	8151A	µg/kg	2200	U	2200	U	--
Herbicides	MCPP	93-65-2	8151A	µg/kg	2200	U	2200	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	11	U	11	U	--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.111	U	0.110	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	11800		11000	J	7.02
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.220	J	0.223	J	1.35
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	3.20		3.10		3.17
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	108	J	102	J	5.71
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.491	J	0.500	J	1.82
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	2.78	J	3.05	J	9.26
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.671		0.619		8.06
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	2780		2790		0.36
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	16.7		16.6		0.60
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	4.91		4.77		2.89
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	12.6		11.8		6.56
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	17000		16500		2.99
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	23.9		21.4		11.04
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	20.4	J	18.9		7.63
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	3930		3600		8.76
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	292		291		0.34
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.531	J	0.506	J	4.82
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	11.6		11.3		2.62
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	439		422		3.95
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3520		3440		2.30
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.543	U	0.549	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.571		0.539	J	5.77
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	70.3	J	70.4	J	0.14
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	23.3		23.1		0.86
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.238	J	0.226	J	5.17
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	10.9	U	11.0	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	803		795		1.00
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	27.1		27.3		0.74
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	86.6		77.2		11.48
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.43	UJ	5.49	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-599		6_DG-599		RPD
				Sample Name:	SL-999-SA6-SB-0.0-0.5		SL-599-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.5	U	5.5	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.5	U	5.5	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	2.9	J	3.4	J	15.87
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	4.3	J	5.0	J	15.05
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	7.8	J	6.6	J	16.67
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.1	J	4.2	J	19.35
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	4.6	J	2.9	J	45.33
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	4.8	J	4.0	J	18.18
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	5.2	J	5.4	J	3.77
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	4.3	J	3.1	J	32.43
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	5.2	J	5.6	J	7.41
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	61		54	J	12.17
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	35		30		15.38
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	44	U	44	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	44	U	44	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	44	UJ	28	J	200.00
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg	210		280		28.57
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg	100		120		18.18
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg	11	U	11	U	--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg	6.7		7.0		4.38
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg	5.5	U	5.5	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg	55	U	55	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.61		7.58		0.39
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.5	U	5.5	U	--

				Location	6_DG-599		6_DG-599		RPD
				Sample Name:	SL-999-SA6-SB-0.0-0.5		SL-599-SA6-SB-0.0-0.5		
				Sample Date	12/11/2012		12/11/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	7.5		8.9		17.07
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	8.2	J	11	UJ	200.00
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	16	J	8.9	J	57.03
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-610		6_DG-610		RPD
				Sample Name:	SL-1010-SA6-SB-0.0-0.5		SL-610-SA6-SB-0.0-0.5		
				Sample Date	11/14/2012		11/14/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	15		23		42.11
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	3.0	J	3.7	J	20.90
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.41	J	0.37	J	10.26
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.21	J	0.38	J	57.63
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.20	J	0.29	J	36.73
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.59	J	0.69	J	15.63
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.32	J	0.23	J	32.73
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.49	J	0.96	J	64.83
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.064	J	4.9	UJ	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.096	J	0.14	J	37.29
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.20	J	0.31	J	43.14
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.15	J	0.15	J	0.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.18	J	0.15	J	18.18
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.97	U	0.98	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.20	J	0.32	J	46.15
Dioxins	OCDD	3268-87-9	1613B	ng/kg	190		230		19.05
Dioxins	OCDF	39001-02-0	1613B	ng/kg	6.1	J	9.6	J	44.59
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.015	J	0.021		33.33
Metals	Aluminum	7429-90-5	6020	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg	13000	J	13000	J	0.00
Metals	Antimony	7440-36-0	6020	mg/kg					--
Metals	Antimony	7440-36-0	6020A	mg/kg	0.022	J	0.021	J	4.65
Metals	Arsenic	7440-38-2	6020	mg/kg					--
Metals	Arsenic	7440-38-2	6020A	mg/kg	3.6	J	3.7	J	2.74
Metals	Barium	7440-39-3	6020	mg/kg					--
Metals	Barium	7440-39-3	6020A	mg/kg	100	J	97	J	3.05
Metals	Beryllium	7440-41-7	6020	mg/kg					--
Metals	Beryllium	7440-41-7	6020A	mg/kg	0.63	J	0.59	J	6.56
Metals	Boron	7440-42-8	6020	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg	9.0	U	9.1	U	--
Metals	Cadmium	7440-43-9	6020	mg/kg					--
Metals	Cadmium	7440-43-9	6020A	mg/kg	0.39	J	0.34	J	13.70
Metals	Calcium	7440-70-2	6020	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg	2600		2500		3.92
Metals	Chromium	7440-47-3	6020	mg/kg					--
Metals	Chromium	7440-47-3	6020A	mg/kg	20	J	19	J	5.13
Metals	Cobalt	7440-48-4	6020	mg/kg					--
Metals	Cobalt	7440-48-4	6020A	mg/kg	6.2	J	6.0	J	3.28
Metals	Copper	7440-50-8	6020	mg/kg					--
Metals	Copper	7440-50-8	6020A	mg/kg	11	J	11	J	0.00
Metals	Iron	7439-89-6	6020	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg	19000	J	19000	J	0.00
Metals	Lead	7439-92-1	6020	mg/kg					--
Metals	Lead	7439-92-1	6020A	mg/kg	9.4	J	8.7	J	7.73
Metals	Lithium	7439-93-2	6020	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg	21	J	20	J	4.88
Metals	Magnesium	7439-95-4	6020	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg	4200		4200		0.00
Metals	Manganese	7439-96-5	6020	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg	330	J	310	J	6.25
Metals	Molybdenum	7439-98-7	6020	mg/kg					--
Metals	Molybdenum	7439-98-7	6020A	mg/kg	0.44	J	0.43	J	2.30
Metals	Nickel	7440-02-0	6020	mg/kg					--
Metals	Nickel	7440-02-0	6020A	mg/kg	14	J	14	J	0.00
Metals	Phosphorus	7723-14-0	6020	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg	480		490		2.06
Metals	Potassium	7440-09-7	6020	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg	4300	J	4000	J	7.23
Metals	Selenium	7782-49-2	6020	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg	0.66		0.66		0.00
Metals	Silver	7440-22-4	6020	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg	0.73	U	0.78	U	--
Metals	Sodium	7440-23-5	6020	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg	79	J	87	J	9.64
Metals	Strontium	7440-24-6	6020	mg/kg					--
Metals	Strontium	7440-24-6	6010C	mg/kg	18		16		11.76
Metals	Thallium	7440-28-0	6020	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg	0.28	J	0.27	J	3.64
Metals	Tin	7440-31-5	6020	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg	1.5	J	1.4	J	6.90
Metals	Titanium	7440-32-6	6020	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg	850		840		1.18
Metals	Vanadium	7440-62-2	6020	mg/kg					--
Metals	Vanadium	7440-62-2	6020A	mg/kg	32	J	31	J	3.17
Metals	Zinc	7440-66-6	6020	mg/kg					--
Metals	Zinc	7440-66-6	6020A	mg/kg	60	J	58	J	3.39
Metals	Zirconium	7440-67-7	6020	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg	8.0	U	8.1	U	--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	9.8	U	9.3	U	--

				Location	6_DG-610		6_DG-610		RPD
				Sample Name:	SL-1010-SA6-SB-0.0-0.5		SL-610-SA6-SB-0.0-0.5		
				Sample Date	11/14/2012		11/14/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	9.8	UJ	0.25	J	200.00
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	0.34	J	0.41	J	18.67
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	9.8	U	9.3	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	0.28	J	9.3	UJ	200.00
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	9.8	UJ	0.94	J	200.00
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	1.0	J	2.0	J	66.67
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	1.2	J	2.0	J	50.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	5.1	J	5.8	J	12.84
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	1.3	J	2.1	J	47.06
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	1.4	J	1.8	J	25.00
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	5.1	J	5.9	J	14.55
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	9.8	U	9.3	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	7.3	J	6.8	J	7.09
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	9.8	U	9.3	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	1.5	J	2.0	J	28.57
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	9.8	U	9.3	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	9.8	U	9.3	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	4.1	J	3.0	J	30.99
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	5.9	J	5.9	J	0.00
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg	1.9		3.0		44.90
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	16	U	16	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	30	U	31	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	16	U	16	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	16	U	16	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	16	U	16	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	13	J	13	J	0.00
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	16	U	16	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	30	U	31	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	30	U	31	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	46	U	48	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	46	U	48	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	46	U	48	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	7.23		7.12		1.53
Temperature	Temperature	TEMP	9045D	deg C	21.6		22.0		1.83
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.0	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.0	U	5.1	U	--

				Location	6_DG-610		6_DG-610		RPD
				Sample Name:	SL-1010-SA6-SB-0.0-0.5		SL-610-SA6-SB-0.0-0.5		
				Sample Date	11/14/2012		11/14/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.0	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	3.2	J	2.8	J	13.33
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	13		10		26.09
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	16		13		20.69
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-614		6_DG-614		RPD
				Sample Name:	SL-1014-SA6-SB-0.0-0.5		SL-614-SA6-SB-0.0-0.5		
				Sample Date	12/12/2012		12/12/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	13		9.1		35.29
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	2.9	J	1.9	J	41.67
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.2	U	5.3	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.2	U	0.15	J	200.00
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.2	U	0.24	J	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.47	J	0.44	J	6.59
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.2	U	5.3	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.71	J	0.41	J	53.57
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.2	U	5.3	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.2	UJ	0.081	J	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.2	UJ	5.3	UJ	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.2	U	5.3	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.2	U	0.18	J	200.00
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.0	U	1.1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.22	J	1.1	U	200.00
Dioxins	OCDD	3268-87-9	1613B	ng/kg	140		84		50.00
Dioxins	OCDF	39001-02-0	1613B	ng/kg	7.6	J	2.8	J	92.31
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.103	U	0.106	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	13500		13900		2.92
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.149	J	0.168	J	11.99
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	3.88		3.94		1.53
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	100	J	103	J	2.96
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.546		0.582		6.38
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.27	U	5.20	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.241	J	0.240	J	0.42
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	1990		2040		2.48
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	16.6		17.1		2.97
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	5.20		5.53		6.15
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	8.13		8.33		2.43
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	18700		18600		0.54
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	9.90		11.3		13.21
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	21.3		21.5		0.93
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	4090		4230		3.37
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	264		279		5.52
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.517	J	0.535		3.42
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	10.8		11.3		4.52
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	355		347		2.28
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3540		3500		1.14
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.527	U	0.520	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.190	J	0.232	J	19.91
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	63.3	J	66.3	J	4.63
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	16.6		17.0		2.38
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.258	J	0.258	J	0.00
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	10.5	U	10.4	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	833		843		1.19
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	30.0		30.9		2.96
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	49.4		50.0		1.21
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.27	U	5.20	U	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-614		6_DG-614		RPD
				Sample Name:	SL-1014-SA6-SB-0.0-0.5		SL-614-SA6-SB-0.0-0.5		
				Sample Date	12/12/2012		12/12/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.3	U	5.3	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.3	U	5.3	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	11	UJ	3.7	J	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	11	UJ	4.5	J	200.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	2.7	J	9.5	J	111.48
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.3	UJ	6.3	J	200.00
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	11	UJ	3.4	J	200.00
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	UJ	2.8	J	200.00
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	UJ	3.1	J	200.00
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	UJ	2.7	J	200.00
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	11	UJ	4.6	J	200.00
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	21	U	21	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	43	U	42	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	43	U	42	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	43	U	42	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	6.48		6.62		2.14
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.3	U	5.3	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.3	U	5.3	U	--

				Location	6_DG-614		6_DG-614		RPD
				Sample Name:	SL-1014-SA6-SB-0.0-0.5		SL-614-SA6-SB-0.0-0.5		
				Sample Date	12/12/2012		12/12/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.3	U	5.3	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	3.2	J	3.5	J	8.96
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	11	U	11	U	--
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	3.2	J	3.5	J	8.96
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-618		6_DG-618		RPD
				Sample Name:	SL-1018-SA6-SB-0.0-0.5		SL-618-SA6-SB-0.0-0.5		
				Sample Date	12/06/2012		12/06/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	9.5		10		5.13
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	2.3	J	2.6	J	12.24
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.55	J	5.6	U	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.8	U	5.6	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.20	J	5.6	U	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.59	J	0.55	J	7.02
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.20	J	0.16	J	22.22
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.51	J	0.53	J	3.85
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.8	UJ	5.6	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.8	U	5.6	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.14	J	0.15	J	6.90
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.8	U	5.6	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.8	U	5.6	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.2	U	1.1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.23	J	0.10	J	78.79
Dioxins	OCDD	3268-87-9	1613B	ng/kg	73		80		9.15
Dioxins	OCDF	39001-02-0	1613B	ng/kg	4.4	J	3.9	J	12.05
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.111	U	0.111	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	13000		13000		0.00
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.255	J	0.236	J	7.74
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	4.49		4.39		2.25
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	89.8	J	91.0	J	1.33
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.550	J	0.541	J	1.65
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.60	U	5.59	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.207	J	0.211	J	1.91
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	2280		2310		1.31
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	18.9		19.4		2.61
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	5.71		5.71		0.00
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	8.63		8.62		0.12
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	20000		19500		2.53
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	10.2		9.73		4.72
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	23.8		24.1		1.25
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	4550		4470		1.77
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	279		280		0.36
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.532	J	0.535	J	0.56
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	12.1		12.5		3.25
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	322		320		0.62
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	3780		3750		0.80
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.560	U	0.559	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.560	U	0.559	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	112	U	112	U	--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	15.2		15.4		1.31
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.252	J	0.247	J	2.00
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.2	U	11.2	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	908		922		1.53
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	34.8		34.6		0.58
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	48.3		47.9		0.83
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.60	UJ	5.59	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-618		6_DG-618		RPD
				Sample Name:	SL-1018-SA6-SB-0.0-0.5		SL-618-SA6-SB-0.0-0.5		
				Sample Date	12/06/2012		12/06/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.6	U	5.6	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	45	U	45	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	6.19		6.65		7.17
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.6	U	5.6	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.6	U	5.6	U	--

				Location	6_DG-618		6_DG-618		RPD
				Sample Name:	SL-1018-SA6-SB-0.0-0.5		SL-618-SA6-SB-0.0-0.5		
				Sample Date	12/06/2012		12/06/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.6	U	5.6	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	3.3	J	3.3	J	0.00
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	13		15		14.29
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	16		18		11.76
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-622		6_DG-622		RPD
				Sample Name:	SL-1022-SA6-SB-0.0-0.5		SL-622-SA6-SB-0.0-0.5		
				Sample Date	12/19/2012		12/19/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	34		21		47.27
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	6.3		4.1	J	42.31
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.55	J	0.46	J	17.82
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.60	J	0.38	J	44.90
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.56	J	0.34	J	48.89
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	1.3	J	0.94	J	32.14
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	2.2	J	1.3	J	51.43
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	1.5	J	1.1	J	30.77
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.7	U	0.32	J	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.7	U	5.6	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.34	J	0.31	J	9.23
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.49	J	0.36	J	30.59
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.35	J	0.23	J	41.38
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	UJ	0.041	J	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.1	UJ	1.1	UJ	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	420		300	J	33.33
Dioxins	OCDF	39001-02-0	1613B	ng/kg	17	J	11	J	42.86
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.116	U	0.115	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	13800		13200		4.44
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.194	J	0.190	J	2.08
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	3.45		3.52		2.01
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	126		118		6.56
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.569		0.540	J	5.23
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.69	U	5.65	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.319	J	0.316	J	0.94
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	2640		2230		16.84
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	17.3		17.2		0.58
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	5.35		5.29		1.13
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	9.76		10.1		3.42
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	19000		19000		0.00
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	12.0		10.4		14.29
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	21.3		19.3		9.85
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	4110		4150		0.97
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	347		318		8.72
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.621		0.635		2.23
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	11.6		11.7		0.86
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	433		436		0.69
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	4050		3720		8.49
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.569	U	0.565	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.569	U	0.565	U	--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	66.4	J	62.7	J	5.73
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	23.3		20.9		10.86
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.271	J	0.248	J	8.86
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	11.4	U	11.3	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	937		882		6.05
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	30.3		30.7		1.31
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	64.1		62.1		3.17
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.69	UJ	5.65	UJ	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	12	U	12	U	--

				Location	6_DG-622		6_DG-622		RPD
				Sample Name:	SL-1022-SA6-SB-0.0-0.5		SL-622-SA6-SB-0.0-0.5		
				Sample Date	12/19/2012		12/19/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.8	U	5.8	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	12	U	12	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.8	U	5.8	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	5.8	U	5.8	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	12	U	12	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	12	U	12	U	--
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	12	U	12	U	--
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	23	U	23	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	46	U	46	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	46	U	46	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	46	U	46	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	6.61		6.68		1.05
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.8	U	5.8	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.8	U	5.8	U	--

				Location	6_DG-622		6_DG-622		RPD
				Sample Name:	SL-1022-SA6-SB-0.0-0.5		SL-622-SA6-SB-0.0-0.5		
				Sample Date	12/19/2012		12/19/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.8	U	5.8	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	7.1		5.4	J	27.20
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	15		11	J	30.77
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	22		16		31.58
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

				Location	6_DG-685		6_DG-685		RPD
				Sample Name:	SL-1085-SA6-SB-0.0-0.5		SL-685-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	77		95		20.93
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.8	J	10	J	53.16
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.5	UJ	0.61	J	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.42	J	0.62	J	38.46
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.48	J	0.87	J	57.78
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	2.1	J	3.0	J	35.29
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.46	J	1.1	J	82.05
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	1.5	J	2.3	J	42.11
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.5	UJ	5.5	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.18	J	5.5	UJ	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.5	UJ	0.36	J	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.35	J	0.49	J	33.33
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.25	J	0.37	J	38.71
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.1	U	1.1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.17	J	0.40	J	80.70
Dioxins	OCDD	3268-87-9	1613B	ng/kg	2300		2100		9.09
Dioxins	OCDF	39001-02-0	1613B	ng/kg	21		29		32.00
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	11	U	11	U	--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	11	U	11	U	--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	11	U	11	U	--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	11	U	11	U	--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg	11	U	11	U	--
Herbicides	MCPA	94-74-6	8151A	µg/kg	2200	U	2200	U	--
Herbicides	MCPP	93-65-2	8151A	µg/kg	2200	U	2200	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	11	U	11	U	--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471A	mg/kg	0.110	U	0.111	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6020	mg/kg	11200		11100		0.90
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6020	mg/kg	0.206	J	0.220	J	6.57
Metals	Antimony	7440-36-0	6020A	mg/kg					--
Metals	Arsenic	7440-38-2	6020	mg/kg	3.26		3.23		0.92
Metals	Arsenic	7440-38-2	6020A	mg/kg					--
Metals	Barium	7440-39-3	6020	mg/kg	76.0		84.5	J	10.59
Metals	Barium	7440-39-3	6020A	mg/kg					--
Metals	Beryllium	7440-41-7	6020	mg/kg	0.407	J	0.438	J	7.34
Metals	Beryllium	7440-41-7	6020A	mg/kg					--
Metals	Boron	7440-42-8	6020	mg/kg	5.35	U	5.46	U	--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6020	mg/kg	0.245	J	0.334	J	30.74
Metals	Cadmium	7440-43-9	6020A	mg/kg					--
Metals	Calcium	7440-70-2	6020	mg/kg	1760		1840		4.44
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6020	mg/kg	14.3		15.6		8.70
Metals	Chromium	7440-47-3	6020A	mg/kg					--
Metals	Cobalt	7440-48-4	6020	mg/kg	4.65		5.19		10.98
Metals	Cobalt	7440-48-4	6020A	mg/kg					--
Metals	Copper	7440-50-8	6020	mg/kg	7.80		11.1		34.92
Metals	Copper	7440-50-8	6020A	mg/kg					--
Metals	Iron	7439-89-6	6020	mg/kg	15700		16200		3.13
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6020	mg/kg	21.8		28.7		27.33
Metals	Lead	7439-92-1	6020A	mg/kg					--
Metals	Lithium	7439-93-2	6020	mg/kg	16.9		16.1		4.85
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6020	mg/kg	3580		3580		0.00
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6020	mg/kg	228		246		7.59
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6020	mg/kg	0.446	J	0.499	J	11.22
Metals	Molybdenum	7439-98-7	6020A	mg/kg					--
Metals	Nickel	7440-02-0	6020	mg/kg	9.24		10.3		10.85
Metals	Nickel	7440-02-0	6020A	mg/kg					--
Metals	Phosphorus	7723-14-0	6020	mg/kg	299		316		5.53
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6020	mg/kg	2640		2810		6.24
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020	mg/kg	0.535	U	0.546	U	--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020	mg/kg	0.535	UJ	6.05	J	200.00
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6020	mg/kg	68.9	J	70.8	J	2.72
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020	mg/kg	15.3		14.0		8.87
Metals	Strontium	7440-24-6	6010C	mg/kg					--
Metals	Thallium	7440-28-0	6020	mg/kg	0.215	J	0.219	J	1.84
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6020	mg/kg	10.7	U	10.9	U	--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6020	mg/kg	885		903		2.01
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6020	mg/kg	27.5		28.4		3.22
Metals	Vanadium	7440-62-2	6020A	mg/kg					--
Metals	Zinc	7440-66-6	6020	mg/kg	46.9		57.6		20.48
Metals	Zinc	7440-66-6	6020A	mg/kg					--
Metals	Zirconium	7440-67-7	6020	mg/kg	5.35	U	5.46	U	--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
NDMA	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	11	U	11	U	--

				Location	6_DG-685		6_DG-685		RPD
				Sample Name:	SL-1085-SA6-SB-0.0-0.5		SL-685-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	1,1'-Biphenyl	92-52-4	8270C SIM	µg/kg	5.5	U	5.6	U	--
PAHs	1-Methylnaphthalene	90-12-0	8270C SIM	µg/kg	11	U	11	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthene	83-32-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Acenaphthylene	208-96-8	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Anthracene	120-12-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Azobenzene	103-33-3	8270C SIM	µg/kg	5.5	U	5.6	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270C SIM	µg/kg	11	UJ	7.6	J	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270C SIM	µg/kg	4.6	J	11	J	82.05
PAHs	Benzo(b)fluoranthene	205-99-2	8270C SIM	µg/kg	4.1	J	15	J	114.14
PAHs	Benzo(e)pyrene	192-97-2	8270C SIM	µg/kg	2.9	J	9.4	J	105.69
PAHs	Benzo(g,h,i)perylene	191-24-2	8270C SIM	µg/kg	4.5	J	10	J	75.86
PAHs	Benzo(k)fluoranthene	207-08-9	8270C SIM	µg/kg	11	UJ	5.2	J	200.00
PAHs	Chrysene	218-01-9	8270C SIM	µg/kg	11	UJ	10	J	200.00
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Fluoranthene	206-44-0	8270C SIM	µg/kg	3.2	J	15	J	129.67
PAHs	Fluorene	86-73-7	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	µg/kg	3.5	J	6.4	J	58.59
PAHs	Naphthalene	91-20-3	8270C SIM	µg/kg	11	U	11	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270C SIM	µg/kg	11	U	11	U	--
PAHs	Phenanthrene	85-01-8	8270C SIM	µg/kg	11	UJ	3.8	J	200.00
PAHs	Pyrene	129-00-0	8270C SIM	µg/kg	2.8	J	14	J	133.33
PAHs	BAP TEQ	BAP-EQUIV	BAP EQUIVALENCE	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--
PCBPCTs	Aroclor 1260	11096-82-5	8082	µg/kg	18	J	21	J	15.38
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082	µg/kg	22	U	22	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082	µg/kg	44	U	45	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082	µg/kg	44	U	45	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082	µg/kg	44	U	45	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081A	µg/kg	4.4		6.4		37.04
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane (Technical)	12789-03-6	8081A	µg/kg	11	U	11	U	--
Pesticides	Chlordane (Technical)	12789-03-6	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081A	µg/kg	5.5	U	5.6	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081A	µg/kg	2.2	U	2.2	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081A	µg/kg	55	U	56	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045D	pH	6.68		6.33		5.38
Temperature	Temperature	TEMP	9045D	deg C					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015B EFH	mg/kg	5.5	U	5.6	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015B EFH	mg/kg	5.5	U	5.6	U	--

				Location	6_DG-685		6_DG-685		RPD
				Sample Name:	SL-1085-SA6-SB-0.0-0.5		SL-685-SA6-SB-0.0-0.5		
				Sample Date	12/13/2012		12/13/2012		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	6_DG		6_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015B EFH	mg/kg	5.5	U	5.6	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015B EFH	mg/kg	13		15		14.29
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015B EFH	mg/kg	15		20		28.57
TPH-EFH	Total EFH (C8-C40)	PHCC8C40	8015B EFH	mg/kg	28		35		22.22
TPH-GRO	Gasoline Range Organics (C4-C12)	GROC4C12	8015B GRO	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015B GRO	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C10 Summary of Data Completeness Following Data Validation – Subarea 3

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	42	111	0	50	1	204	100
Metals - 6010C	12	58	0	14	0	84	100
Metals – 6020	109	44	0	26	1	180	100
Metals – 6020A	9	85	0		2	96	100
Mercury– 7471A	0	0	0	6	0	6	100
Mercury – 7471B	2	3	0	1	0	6	100
TPH-EFH – 8015B EFH	22	10	0	40	0	72	100
TPH-GRO – 8015B GRO	0	0	0	4	0	4	100
PCB/PCTs - 8082	3	2	0	67	0	72	100
PCB/PCTs – 8082A	10	2	0	60	0	72	100
SVOC SIM – 8270C SIM	31	71	0	144	0	246	100
Completeness Total for Phase 3 Subarea 3 Samples Collected and Judged Valid							**100**

Table C11 - Summary of Data Completeness Following Data Validation – Subarea 6

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	746	1881	0	1774	37	4438	100
Metals - 6010C	795	1172	0	253	6	2226	100
Metals – 6020	1767	644	0	385	54	2850	100
Metals – 6020A	158	2202	0	138	46	2544	100
Perchlorate – 6850	0		0	7	0	7	100
Perchlorate – 6860	0	1	0	1	0	2	100
Hexavalent Chromium – 7199	0		0	11	0	11	100
Mercury – 7471A	5	3	0	87	0	95	100
Mercury – 7471B	53	87	0	18	1	159	100
TPH-EFH – 8015B EFH	433	199	0	919	3	1554	100
TPH-GRO – 8015B GRO	0	10	0	78	3	91	100
Pesticides – 8081A	8	0	0	181	0	189	100
Pesticides – 8081B	10	20	0	507	9	546	100
PCB/PCTs - 8082	19	8	0	1111	2	1140	100
PCB/PCTs – 8082A	70	23	0	1947	48	2088	100
Herbicides – 8151A	0	6	2	341	1	350	99.99
SVOC SIM – 8270C SIM	402	1278	0	3445	8	5133	100
Formaldehyde – 8315A	0	2	0	9	0	11	100
Completeness Total for Phase 3 Subarea 6 Samples Collected and Judged Valid							**99.99**

SAMPLE DELIVERY GROUP

280-36114-1

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
19-Nov-2012	TB-111912	280-36114-1	TB	METHOD	8015B GRO	III
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-2	N	3546	8270C SIM	IV
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-2	N	3550C	8015B EFH	IV
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-3	N	3050B	6010C	IV
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-3	N	3050B	6020A	IV
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-3	N	3546	8082A	IV
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-3	N	7471B	7471B	IV
19-Nov-2012	SL-503-SA3-SB-3.0	280-36114-6	N	5035	8015B GRO	IV
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-4	N	3546	8270C SIM	III
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-4	N	3550C	8015B EFH	III
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-5	N	3050B	6010C	III
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-5	N	3050B	6020A	III
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-5	N	3546	8082A	III
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-5	N	7471B	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: Prep280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method Category: METALS

Method: 6010C ***Matrix:*** SO

Sample ID: **SL-503-SA3-SB-0.0-0.5** ***Collected:*** **11/19/2012 1:15:00** ***Analysis Type:*** **RE2/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	20	J	0.29	MDL	35	MRL	mg/Kg	J	Z

Sample ID: **SL-503-SA3-SB-0.0-0.5** ***Collected:*** **11/19/2012 1:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z, A
BORON	1.4	J	0.94	MDL	9.3	MRL	mg/Kg	U	F
CALCIUM	2400		13	MDL	48	MRL	mg/Kg	J	A
MANGANESE	310	J	0.096	MDL	470	MRL	mg/Kg	J	Z
POTASSIUM	3500	J	39	MDL	6100	MRL	mg/Kg	J	Z, A
SODIUM	78	J	56	MDL	480	MRL	mg/Kg	U	F
STRONTIUM	18	B	0.034	MDL	0.47	MRL	mg/Kg	J	A
TIN	1.3	J B	0.87	MDL	10	MRL	mg/Kg	U	B
Zirconium	1.5	J	0.34	MDL	8.2	MRL	mg/Kg	J	Z

Sample ID: **SL-503-SA3-SB-2.5-3.5** ***Collected:*** **11/19/2012 2:40:00** ***Analysis Type:*** **RE2/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	20	J	0.27	MDL	34	MRL	mg/Kg	J	Z

Sample ID: **SL-503-SA3-SB-2.5-3.5** ***Collected:*** **11/19/2012 2:40:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z, A
BORON	0.89	J	0.89	MDL	8.8	MRL	mg/Kg	U	F
CALCIUM	1900		13	MDL	46	MRL	mg/Kg	J	A
MANGANESE	290	J	0.091	MDL	450	MRL	mg/Kg	J	Z
POTASSIUM	2900	J	37	MDL	5800	MRL	mg/Kg	J	Z, A
SODIUM	84	J	54	MDL	460	MRL	mg/Kg	U	F
STRONTIUM	17	B	0.033	MDL	0.45	MRL	mg/Kg	J	A
TIN	1.1	J B	0.83	MDL	9.9	MRL	mg/Kg	U	B
Zirconium	1.5	J	0.32	MDL	7.8	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: Prep280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method Category: METALS

Method: 6020A ***Matrix:*** SO

Sample ID: **SL-503-SA3-SB-0.0-0.5** ***Collected:*** **11/19/2012 1:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.028	J	0.013	MDL	8.2	MRL	mg/Kg	J	Z, Q
ARSENIC	3.8	J	0.048	MDL	14	MRL	mg/Kg	J	Z
BARIUM	110	J	0.066	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.52	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	20	J	0.071	MDL	35	MRL	mg/Kg	J	Z
COBALT	5.8	J	0.0062	MDL	20	MRL	mg/Kg	J	Z
COPPER	16	J	0.067	MDL	27	MRL	mg/Kg	J	Z
LEAD	30	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.53	J	0.017	MDL	5.0	MRL	mg/Kg	J	Z
NICKEL	13	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SILVER	0.25	J	0.019	MDL	0.74	MRL	mg/Kg	J	Z
THALLIUM	0.25	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	33	J	0.036	MDL	58	MRL	mg/Kg	J	Z

Sample ID: **SL-503-SA3-SB-2.5-3.5** ***Collected:*** **11/19/2012 2:40:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.013	J	0.013	MDL	8.0	MRL	mg/Kg	J	Z, Q
ARSENIC	3.4	J	0.047	MDL	14	MRL	mg/Kg	J	Z
BARIUM	100	J	0.065	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.54	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.30	J	0.0086	MDL	0.92	MRL	mg/Kg	J	Z
CHROMIUM	21	J	0.070	MDL	34	MRL	mg/Kg	J	Z
COBALT	5.8	J	0.0061	MDL	19	MRL	mg/Kg	J	Z
COPPER	9.8	J	0.065	MDL	27	MRL	mg/Kg	J	Z
LEAD	7.7	J	0.017	MDL	31	MRL	mg/Kg	J	Z
MOLYBDENUM	0.45	J	0.016	MDL	4.9	MRL	mg/Kg	J	Z
NICKEL	12	J	0.023	MDL	27	MRL	mg/Kg	J	Z
SILVER	0.063	J	0.019	MDL	0.73	MRL	mg/Kg	J	Z
THALLIUM	0.27	J	0.0032	MDL	0.42	MRL	mg/Kg	J	Z
VANADIUM	34	J	0.035	MDL	57	MRL	mg/Kg	J	Z
ZINC	60	J	0.29	MDL	100	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: Prep280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method Category: METALS
Method: 7471B **Matrix:** SO

Sample ID: SL-503-SA3-SB-2.5-3.5 **Collected:** 11/19/2012 2:40:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.018	J	0.0068	MDL	0.024	MRL	mg/Kg	J	Z

Method Category: SVOA
Method: 8015B EFH **Matrix:** SO

Sample ID: SL-503-SA3-SB-0.0-0.5 **Collected:** 11/19/2012 1:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.7	J	1.0	MDL	5.2	MRL	mg/Kg	J	Z

Sample ID: SL-503-SA3-SB-2.5-3.5 **Collected:** 11/19/2012 2:40:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C30-C40)	3.7	J	1.0	MDL	10	MRL	mg/Kg	J	Z

Method Category: SVOA
Method: 8082A **Matrix:** SO

Sample ID: SL-503-SA3-SB-0.0-0.5 **Collected:** 11/19/2012 1:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	47	J	17	MDL	51	MRL	ug/Kg	J	Z

Sample ID: SL-503-SA3-SB-2.5-3.5 **Collected:** 11/19/2012 2:40:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	16	J	2.7	MDL	17	MRL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270C SIM **Matrix:** SO

Sample ID: SL-503-SA3-SB-0.0-0.5 **Collected:** 11/19/2012 1:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	9.5	J	0.28	MDL	11	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: Prep280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method Category: **SVOA**

Method: **8270C SIM** ***Matrix:*** **SO**

Sample ID: **SL-503-SA3-SB-0.0-0.5** ***Collected:*** **11/19/2012 1:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ANTHRACENE	6.7	J	0.77	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	7.9	J	0.96	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	5.8	J	0.79	MDL	11	MRL	ug/Kg	J	Z
FLUORENE	7.0	J	0.50	MDL	11	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.3	J	1.2	MDL	11	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: Prep280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
F	Equipment Blank Contamination
Q	Matrix Spike Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

280-36114-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: 280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148797/1-A	11/28/2012 1:21:00 PM	STRONTIUM TIN	0.0460 mg/Kg 0.949 mg/Kg	SL-503-SA3-SB-0.0-0.5 SL-503-SA3-SB-2.5-3.5

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-503-SA3-SB-0.0-0.5(RES/TOT)	TIN	1.3 mg/Kg	1.3U mg/Kg
SL-503-SA3-SB-2.5-3.5(RES/TOT)	TIN	1.1 mg/Kg	1.1U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: 280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-112012(RES/TOT)	11/20/2012 3:00:00 PM	BORON MANGANESE SODIUM	0.0055 mg/L 0.00051 mg/L 0.17 mg/L	SL-503-SA3-SB-0.0-0.5 SL-503-SA3-SB-2.5-3.5 SL-503-SA3-SB-3.0

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-503-SA3-SB-0.0-0.5(RES/TOT)	BORON	1.4 mg/Kg	1.4U mg/Kg
SL-503-SA3-SB-0.0-0.5(RES/TOT)	SODIUM	78 mg/Kg	78U mg/Kg
SL-503-SA3-SB-2.5-3.5(RES/TOT)	BORON	0.89 mg/Kg	0.89U mg/Kg
SL-503-SA3-SB-2.5-3.5(RES/TOT)	SODIUM	84 mg/Kg	84U mg/Kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: 280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	ALUMINUM	J	12000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	1.4	9.3	MRL	mg/Kg	
	LITHIUM	J	20	35	MRL	mg/Kg	
	MANGANESE	J	310	470	MRL	mg/Kg	
	POTASSIUM	J	3500	6100	MRL	mg/Kg	
	SODIUM	J	78	480	MRL	mg/Kg	
	TIN	J B	1.3	10	MRL	mg/Kg	
	Zirconium	J	1.5	8.2	MRL	mg/Kg	
SL-503-SA3-SB-2.5-3.5	ALUMINUM	J	13000	18000	MRL	mg/Kg	J (all detects)
	BORON	J	0.89	8.8	MRL	mg/Kg	
	LITHIUM	J	20	34	MRL	mg/Kg	
	MANGANESE	J	290	450	MRL	mg/Kg	
	POTASSIUM	J	2900	5800	MRL	mg/Kg	
	SODIUM	J	84	460	MRL	mg/Kg	
	TIN	J B	1.1	9.9	MRL	mg/Kg	
	Zirconium	J	1.5	7.8	MRL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	ANTIMONY	J	0.028	8.2	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.8	14	MRL	mg/Kg	
	BARIUM	J	110	130	MRL	mg/Kg	
	BERYLLIUM	J	0.52	1.0	MRL	mg/Kg	
	CHROMIUM	J	20	35	MRL	mg/Kg	
	COBALT	J	5.8	20	MRL	mg/Kg	
	COPPER	J	16	27	MRL	mg/Kg	
	LEAD	J	30	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.53	5.0	MRL	mg/Kg	
	NICKEL	J	13	27	MRL	mg/Kg	
	SILVER	J	0.25	0.74	MRL	mg/Kg	
	THALLIUM	J	0.25	0.43	MRL	mg/Kg	
	VANADIUM	J	33	58	MRL	mg/Kg	
SL-503-SA3-SB-2.5-3.5	ANTIMONY	J	0.013	8.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	14	MRL	mg/Kg	
	BARIUM	J	100	130	MRL	mg/Kg	
	BERYLLIUM	J	0.54	1.0	MRL	mg/Kg	
	CADMIUM	J	0.30	0.92	MRL	mg/Kg	
	CHROMIUM	J	21	34	MRL	mg/Kg	
	COBALT	J	5.8	19	MRL	mg/Kg	
	COPPER	J	9.8	27	MRL	mg/Kg	
	LEAD	J	7.7	31	MRL	mg/Kg	
	MOLYBDENUM	J	0.45	4.9	MRL	mg/Kg	
	NICKEL	J	12	27	MRL	mg/Kg	
	SILVER	J	0.063	0.73	MRL	mg/Kg	
	THALLIUM	J	0.27	0.42	MRL	mg/Kg	
	VANADIUM	J	34	57	MRL	mg/Kg	
	ZINC	J	60	100	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36114-1 **Laboratory: TA DEN**

EDD Filename: 280-36114-1 **eQAPP Name: CDM_SSFL_120907_TA**

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-2.5-3.5	MERCURY	J	0.018	0.024	MRL	mg/Kg	J (all detects)

Method: 8015B EFH
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	EFH(C15-C20)	J	1.7	5.2	MRL	mg/Kg	J (all detects)
SL-503-SA3-SB-2.5-3.5	EFH(C30-C40)	J	3.7	10	MRL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	Aroclor 5460	J	47	51	MRL	ug/Kg	J (all detects)
SL-503-SA3-SB-2.5-3.5	AROCLOR 1260	J	16	17	MRL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	9.5	11	MRL	ug/Kg	J (all detects)
	ANTHRACENE	J	6.7	11	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	7.9	11	MRL	ug/Kg	
	BENZO(A)PYRENE	J	5.8	11	MRL	ug/Kg	
	FLUORENE	J	7.0	11	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.3	11	MRL	ug/Kg	

LDC #: 29651A4
SDG #: 280-36114-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 5/3/13
Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 11/19/12
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	FB= FB-060512 (12F037) EB=EB-112012 (280-36180-1)

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

** Level 4

Validated Samples:

1	SL-503-SA3-SB-2.5-3.5	11		21		31	
2	SL-503-SA3-SB-0.0-0.5	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 #: 29651AA4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: OL
2nd Reviewer: K

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: EB=11/20/12; FB=6/5/12 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification													
	FB-060512	EB-112012	Action Limit	2	1											
Al	0.0270		13.5													
B		0.0055	2.75	1.4	0.89											
Ca	0.0263		13.15													
Cu	0.00095		0.475													
Mn		0.00051	0.255													
Na		0.17	85	78	84											
Hg		0.000034	0.017													

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 29651A4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: QR
2nd Reviewer: ~

METHOD: Trace metals (EPA SW 846 Method 6010B/6020A/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-523-SA6-SB-	0.0-0.5mg/mm	Sb	6	6		All	J/UJ/A (Q) PS=103%

Comments:

LDC #: 29651A4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Page: 1 of 1
Reviewer: QR
2nd Reviewer: [illegible]

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 If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y N N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y N N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
		SL-523-SA6-SB-0.0-0.5		Al	12	All	J/UJ/A (A)
				Ca	13	↓	↓
				K	12		
				Sr	13		

Comments:

SDILICPMS.wpd

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 19, 2012
LDC Report Date:	May 6, 2013
Matrix:	Soil
Parameters:	Polynuclear Aromatic Hydrocarbons
Validation Level:	Level IV
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	280-36114-1

Sample Identification

SL-503-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample 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 Polynuclear Aromatic Hydrocarbons.

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.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 30.0%.

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 polynuclear aromatic hydrocarbon contaminants were found in the method.

Sample EB-112012 (from SDG 280-36180-1) was identified as an equipment blank. No polynuclear aromatic hydrocarbon contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-112012	11/20/12	2-Methylnaphthalene Naphthalene	0.0055 ug/L 0.091 ug/L	SL-503-SA3-SB-0.0-0.5

Sample FB-060512 (from SDG 12F037) was identified as a field blank. No polynuclear aromatic hydrocarbon contaminants were found.

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) 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

All compound quantitation were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-36114-1	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
Polynuclear Aromatic Hydrocarbons - Data Qualification Summary - SDG 280-36114-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-36114-1	SL-503-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Field Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

LDC #: 29651A2b

SDG #: 280-36114-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 5/3/13

Page: 1 of 1

Reviewer: 15

2nd Reviewer: A

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: 11/19/12
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
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	SW	*FB = FB-060512 (SDG # 12F037) EB = EB-112012 (SDG # 280-36180-1)

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

1	SL-503-SA3-SB-0.0-0.5	11	MB 280-148812	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	

LDC #: 29651A2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

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?	✓		~~✓~~	F7
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%/15% 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) ≤ ~~20%~~ 25 and relative response factors (RRF) ≥ 0.05?	✓			F7
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 #: 2965/A2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT

2nd Reviewer: A

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 SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

LDC #: 29651A2b

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

EB = EB-112012 (SDG 280-36180-1)

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)
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/kg
Sampling date: 11/20/12
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 1 (>5x)

Compound	Blank ID	Sample Identification								
	EB									
W	0.0055									
S	0.091									

Blank units:_____ **Associated sample units:**_____
Sampling date:_____
Field blank type: (circle one) Field Blank / Rinsate / 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 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 #: 29651A26

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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 (60U std)	Recalculated RRF (60U std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	1UA2	10/14/12	Naphthalene (1st internal standard)	1.7343	1.7343	1.8107	1.8107	5.6	5.6
			Phenanthrene (2nd internal standard)	1.0725	1.0725	1.1211	1.1211	5.2	5.2
			Chrysene (3rd internal standard)	0.9498	0.9498	0.9924	0.9924	6.8	6.8
			(4th internal standard)						
			(5th internal standard)						
			(6th internal standard)						
2									
3									

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 #: 29651A2b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: ~~BR~~ 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	CCV 16:03	11/27/12	Naphthalene (1st internal standard)	1.8107	1.959	1.959	8.2	8.2
			Phenanthrene (2nd internal standard)	1.1211	1.196	1.196	6.7	6.7
			Chrysene (3rd internal standard)	0.9924	1.040	1.040	4.8	4.8
			(4th internal standard)					
			(5th internal standard)					
			(6th internal standard)					
2			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
			(5th internal standard)					
			(6th internal standard)					
3								
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
			(5th internal standard)					
			(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 #: 29651A2b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

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: A1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	500.0	453.7	91	91	0
2-Fluorobiphenyl	↓	341.9	68	68	↓
Terphenyl-d14	↓	337.7	68	68	↓
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 #: 29651Aab

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 8270C)

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 = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 280-148812

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
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	27.6	NA	24.5	NA	89	89				
Pentachlorophenol										
Pyrene	27.6	NA	23.4	NA	85	85	NA			

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 #: 2965/A2b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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. #1, 1 methylnaphthalene

Conc. = $\frac{(19212)(660)(1000)(\quad)(\quad)}{(38041)(1.1361)(30.1)(0.933)(1000)}$

= 9.5 ng/kg.

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

LDC Report# 29651A3b

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 19, 2012
LDC Report Date:	May 6, 2013
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	TestAmerica, Inc..
Sample Delivery Group (SDG):	280-36114-1

Sample Identification

SL-503-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample 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.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

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-112012 (from SDG 280-36180-1) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-060512 (from SDG 12F037) was identified as a field 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) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-36114-1	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG 280-36114-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-36114-1	SL-503-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

LDC #: 29651A3b

SDG #: 280-36114-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 5/3/13

Page: 1 of 1

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: 11/19/12
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	r^2
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
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	N	
XVI.	Field blanks	ND	EB = EB-112012 (SDG # 280-36180-1) FB = FB-060512 (SDG # 12F037)

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

3 1+	SL-503-SA3-SB-0.0-0.5	11	MB 280-148922	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:

LDC #: 29651A3b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	•		✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 29651A3b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

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 # 29651A3b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FD
2nd Reviewer: [illegible]

METHOD: GC EPA SW 846 Method 8082A

Parameter: 1260-1

Date	Column	Compound	Y	X	
11/20/2012	CLP1	1260-1	8177.000	25.0	
			18404.000	50.0	
			28104.000	100.0	
			65788.000	250.0	
			119137.000	500.0	
			166138.000	750.0	
			232229.000	1000.0	

Regression Output:		Regression Output:	Reported	
Constant		5970.01134		
Std Err of Y Est		4314.92300		
R Squared		0.99784		0.99550
No. of Observations		7.00000		
Degrees of Freedom		5.00000		
X Coefficient(s)	222.874	-1232868.06		
Std Err of Coef.	4.637041	161510.73		

LDC #: 29651A3b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF -CF)/ave.CF

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/ Conc. CCV	Recalculated CF/ Conc. CCV	Reported %D	Recalculated %D
1	CCV 13:04	11/27/12	1260 - 1	0.500	0.544	0.544	8.9	8.9
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 #: 29651A3b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: EJ
2nd reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
DCB	CLP1	20.0	16.0896	80	80	0
TCMX	↓	↓	14.9507	75	75	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 #: 29651436

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT

2nd Reviewer: ✗

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; LCS = Laboratory Control Sample; SC = Sample concentration; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS 280-148922

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Aroclor 1260	66.7	NA	ND	72.7	NA	109	109	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 #: 2965/A36

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name 1260-1

Concentration = 88.67 / 0.933

95 ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications
	1260-1				
	72479= 222.874(x) + 5970.01134			1260-1 =	94.73
	x=	298.42		-2 =	175.8
	F7			-3 =	48.74
	~~298~~ 298.42 (10000) / 31.5 (1000) = 94.73			-4 =	54.88
				-5 =	69.03
					88.67

Comments:

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 19, 2012
LDC Report Date:	May 6, 2013
Matrix:	Soil
Parameters:	Metals
Validation Level:	Level IV
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	280-36114-1

Sample Identification

SL-503-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6020A, 6010C, and 7471B 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

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria 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 with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Strontium Tin	0.0460 mg/Kg 0.949 mg/Kg	All samples in SDG 280-36114-1

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. 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	Analyte	Reported Concentration	Modified Final Concentration
SL-503-SA3-SB-0.0-0.5	Tin	1.3 mg/Kg	1.3U mg/Kg

Sample EB-112012 (from SDG 280-36180-1) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-112012	11/20/12	Boron Manganese Sodium Mercury	0.0055 mg/L 0.00051 mg/L 0.17 mg/L 0.000034 mg/L	All samples in SDG 280-36114-1

Sample FB-060512 (from SDG 12F037) was identified as a field blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-060512	6/5/12	Aluminum Calcium Copper	0.0270 mg/L 0.0263 mg/L 0.00095 mg/L	All samples in SDG 280-36114-1

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 with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-503-SA3-SB-0.0-0.5	Boron Sodium	1.4 mg/Kg 78 mg/Kg	1.4U mg/Kg 78U mg/Kg

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-523-5A6-SB-0.0-05MS/MSD (All samples in SDG 280-36114-1)	Antimony	6 (75-125)	6 (75-125)	-	J (all detects) UJ (all non-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) 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 with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-523-5A6-SB-0.0-0.5	Aluminum Calcium Potassium Strontium	12 (≤10) 13 (≤10) 12 (≤10) 13 (≤10)	All samples in SDG 280-36114-1	J (all detects) UJ (all non-detects)	A

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 280-36114-1	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 280-36114-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
280-36114-1	SL-503-SA3-SB-0.0-0.5	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
280-36114-1	SL-503-SA3-SB-0.0-0.5	Aluminum Calcium Potassium Strontium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
280-36114-1	SL-503-SA3-SB-0.0-0.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 280-36114-1

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
280-36114-1	SL-503-SA3-SB-0.0-0.5	Tin	1.3U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 280-36114-1

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
280-36114-1	SL-503-SA3-SB-0.0-0.5	Boron Sodium	1.4U mg/Kg 78U mg/Kg	A	F

LDC #: 29651A4
SDG #: 280-36114-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 5/3/13
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6020A/~~7000~~ 6010C / 7471B)

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: 11/19/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	~~ES (different site)~~ or MS/D (280-36112-1)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	SW	FB=FB-060512 EB=EB-112012 (12F037) (280-36180-1)

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

1	SL-503-SA3-SB-0.0-0.5	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:

LDC #: 29651A4

VALIDATION FINDINGS CHECKLIST

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?	✓			

LDC #: 29651A1

VALIDATION FINDINGS CHECKLIST

Reviewer: QR
2nd Reviewer: ✓

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 #: 29651A4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: V

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
All		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 #: 29651A4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	1								
Sr	0.0460			0.23									
Sn	0.949			4.745	1.3								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29651AA4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: EB=11/20/12; FB=6/5/12 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification													
	FB-060512	EB-112012	Action Limit	1	~~2~~											
Al	0.0270		13.5													
B		0.0055	2.75	1.4	0.89											
Ca	0.0263		13.15													
Cu	0.00095		0.475													
Mn		0.00051	0.255													
Na		0.17	85	78	~~84~~ CR											
Hg		0.000034	0.017													

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 29651A4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: QR
2nd Reviewer: L

METHOD: Trace metals (EPA SW 846 Method 6010B/6020A/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-523-SA6-SB-0.0-0.5	ms/msD	Sb	6	6		All	J/UJ/A (Q) PS=103%

Comments:

LDC #: 29651A4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Page: 1 of 1
Reviewer: QR
2nd Reviewer: [illegible]

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 If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y N N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y N N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
		SL-523-SA6-SB-0	0-0.5	Al	12	All	J/UJ/A (A)
				Ca	13	↓	↓
				K	12		
				Sr	13		

Comments:

SDILICPMS.wpd

LDC #: 29651A4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: QR
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:

$\%R = \frac{Found}{True} \times 100$ 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)
ICV	ICP (Initial calibration)	P	1980	2000	99	99	Y
↓	ICP/MS (Initial calibration)	Pb	41.0	40	103	103	↓
↓	CVAA (Initial calibration)	Hg	4.32	4	108	108	
CCV (14:07)	ICP (Continuing calibration)	Sn	1010	1000	101	101	
↓ (03:39)	ICP/MS (Continuing calibration)	Ag	48.8	50	98	98	
↓	CVAA (Continuing calibration)	Hg	4.94	5	99	99	↓
	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 #: 29651A7

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: 9R
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	Cr	105	100	105	105	Y
LCS	Laboratory control sample	Cr	97.2	100	97	97	
SL-SB3-SA6-SB3-0.0-0.5	Matrix spike	Ti	(SSR-SR) 20.35	20.7	98	98	
	Duplicate	V	51.9	53.9	4	4	
	ICP serial dilution	Ti	890	952	7	7	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.4SW

LDC #: 29651A 4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 2
Reviewer: [illegible]
2nd reviewer: [illegible]

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 Sb were recalculated and verified using the following equation:

Concentration = (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:

$$\frac{100\,mL(5)(0.06\,\mu g/L)}{1.14\,g\,(0.933)(1000)} = 0.028\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Al	12000	12000	Y
		B	1.4	1.4	
		Ca	2400	2400	
		Fe	17000	17000	
		Li	20	20	
		Mg	4500	4500	
		Mn	310	310	
		P	410	410	
		K	3500	3500	
		Na	78	78	
		Sr	18	18	
		Sn	1.3	1.3	
		Ti	920	920	
		Zr	1.5	1.5	
		Sb	0.028	0.028	
		As	3.8	3.8	
		Ba	110	110	
		Be	0.52	0.52	
		Cd	0.95	0.95	
		Cr	20	20	
		Co	5.8	5.8	
		Cu	16	16	
		Pb	30	30	
		Mo	0.53	0.53	

LDC #: 29651A 4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CL
2nd reviewer: [illegible]

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 _____ 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:

See pg 1

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Ni	13	13	Y
		Se	0.90	0.90	
		Ag	0.25	0.25	
		Tl	0.25	0.25	
		V	33	33	
		Zn	100	100	
		Hg	0.096	0.096	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 19, 2012
LDC Report Date:	May 6, 2013
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	280-36114-1

Sample Identification

SL-503-SA3-SB-3.0

Introduction

This data review covers one soil 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.

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 .

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-111912 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample EB-112012 (from SDG 280-36180-1) 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-112012	11/20/12	Gasoline range organics	14 ug/L	All samples in SDG 280-36114-1

Sample FB-060512 (from SDG 12F037) was identified as a field blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-060512	6/5/12	Gasoline range organics	49 ug/L	All samples in SDG 280-36114-1

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) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-36114-1	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 280-36114-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-36114-1	SL-503-SA3-SB-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

LDC #: 29651A7

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 5/3/13

SDG #: 280-36114-1

Page: 1 of 1

Laboratory: Test America, 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: 11/19/12
II	Initial calibration	A	r2
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
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= *TB = 111912 FB = FB-060512 (SDG # 12F037) EB = EB-112012 (SDG # 280-36180-1)

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

1	SL-503-SA3-SB-3.0	11	MB 280-148603	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:

LDC #: 29651 A7

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?			✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 29651A7

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

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 #: 29651A7

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer: ~~X~~

METHOD: ✓ **GC** __ **HPLC**

FB = FB-060512 (SDG # 12F037)

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: 6/5/12
Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: FB

Associated Samples: All (ND)

Compound	Blank ID	Blank ID	Sample Identification							
	FB									
GRO	49									

Blank units: ug/L **Associated sample units:** mg/kg
Sampling date:
Field blank type: (circle one) Field Blank / Trip Blank/ Atmospheric Blank/ Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: EB

EB = EB-112012 (SDG # 280-36180-1)

Associated Samples: All (ND)

Compound	Blank ID	Blank ID	Sample Identification							
	EB									
GRO	14									

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 # 29651A7

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: 8015B

Parameter: GRO

Date	Instrument	Compound	Y	X	X^2
10/30/2012	RTX 502.2	GRO	7506779.00	20	
			14959062.00	50	
			27355248.00	100	
			52502125.00	200	
			130196947.00	500	
			256220696.00	1000	

Regression Output:		Regression Output:		
Constant		2194876.44085		
Std Err of Y Est		555097.99825		
R Squared		0.99997		1.00000
No. of Observations		6.00000		
Degrees of Freedom		4.00000		
X Coefficient(s)	2.543E+005	165261.9000000		
Std Err of Coef.	654.151410	0.00		

LDC #: 29651A7

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF -CF)/ave.CF

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/ Conc. CCV	Recalculated CF/ Conc. CCV	Reported %D	Recalculated %D
1	CCV 14:09	11/21/12	GRO C4-C12	200	180	180	10.2	10.2
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 #: 2965/A7

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

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	
aaa TFT	NS	40	44.2	111	111	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 #: 29651A7

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: F7

2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; LCS = Laboratory Control Sample; SC = Sample concentration; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS 280-148603

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike 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)	5.50	5.50	ND	6.17	6.26	112	112	114	114	1	1
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 #: 29651A7

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

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:	November 19, 2012
LDC Report Date:	May 6, 2013
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	280-36114-1

Sample Identification

SL-503-SA3-SB-0.0-0.5

Introduction

This data review covers one soil 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 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%.

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 .

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 extractables contaminants were found in the method blanks.

Sample EB-112012 (from SDG 280-36180-1) was identified as an equipment blank. No total petroleum hydrocarbons as extractables contaminants were found.

Sample FB-060512 (from SDG 12F037) was identified as a field blank. No total petroleum hydrocarbons as extractables 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) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-36114-1	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 280-36114-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-36114-1	SL-503-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG 280-36114-1

No Sample Data Qualified in this SDG

LDC #: 29651A8
SDG #: 280-36114-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 5/3/13
Page: 1 of 1
Reviewer:
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: 11/19/12
II	Initial calibration	A	% RSD ≤ 20, r 2
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
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-060512 (SDG # 12F037) EB = EB-112012 (SDG # 280-36180-1)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-503-SA3-SB-0.0-0.5	11	MB 280-149208	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:

LDC #: 29651AY

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

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 #: 29651A8

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

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 #: 2965 / A8

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: A

METHOD: GC ✓ HPLC_____

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (75 std)	Recalculated CF (75 std)	Reported Ave CF (initial)	Recalculated Ave CF (intial)	Reported %RSD	Recalculated %RSD
1	ICAL	8/27/12	EFH (C15-C20)	1498	1498	1608.58	1608.58	6.7	6.7
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 #: 29651A8

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF -CF)/ave.CF

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/ Conc. CCV	Recalculated CF/ Conc. CCV	Reported %D	Recalculated %D
1	CCV 15:35	11/28/12	EFH C15-C20	150	152	152	1.3	1.3
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.