

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-25635-1

TestAmerica Sample Delivery Group: SL2747
Client Project/Site: F17-009

For:

CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: Mr. Scot Fitzgerald



Authorized for release by:
12/8/2017 2:51:50 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com



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www.testamericainc.com

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.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	8
Definitions/Glossary	13
Method Summary	14
Sample Summary	15
Client Sample Results	16
QC Sample Results	18
QC Association Summary	26

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Job ID: 160-25635-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
December 5, 2017
Attention: Scot Fitzgerald

SDG : SL2747
Number of Samples : 2 samples / 1 water extraction
Sample Matrix : Soil
Data Deliverable : Summary
Date SDG Closed : November 16, 2017

II. Introduction

On November 16, 2 samples were received by TestAmerica - St. Louis for analysis. The samples were received within temperature criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. Upon receipt, samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F17-009

Sample collection date was 11/6/17. Samples were not received until 11/16/17, ten days after collection. There was insufficient time remaining to analyze for Cyanide within 1x hold. Per SIR18-0153, the analysis was performed and reported.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate a narrative note; however, they are flagged "D" due to a limitation in the LIMS.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a "D" flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Job ID: 160-25635-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic/radiochemistry analyses, the sample result is greater than the MDL/MDC but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte above the MDL/RL and Method Blank is greater than 5% of the sample concentration.
- **B** - For inorganics and radiochemistry, Method Blank reported above the MDC/MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL. If on Method Blank, indicates Method Blank contamination.
- **C** - For inorganics and radiochemistry analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL and Method Blank concentration is greater than 5% of the sample concentration.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For ICPMS Metals analyses, per standard practice, all samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner and will not be narrated below. Only dilutions above 2x will be narrated and considered a true dilution for these samples.
- **N** - For inorganics, rad and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **o** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.
- **X**- Organics and Anions IC - Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X**- Inorganics - The analyte present in the original sample is > 4x the spike concentration.
- **X**- Radiochemistry - Carrier or Tracer recovery is outside limits.
- **Z**- Sample was prepped or analyzed beyond the specified sample holding time.
- **y** - RPD is outside established limits.

Water Extraction

As per client request, the following soil samples are to be analyzed as water extractions, necessitating a DI-prep to be performed. Samples were prepped at 1:1 ratio in a 1L poly container. Sample was then shaken by hand to break up any large soil clumps before placing on a shaker table for 15 minutes. Samples were then allowed to settle before decanting the supernatant into a new 500 mL poly container. After preparation, the samples were made available to the lab for analysis. B3FCL4 (160-25635-2)

ICP Metals

Batch: 160-338983

The native sample, matrix spike, and matrix spike duplicate (MS/MSD) samples associated with preparation batch 160-338547 and analytical batch 160-338983 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Silicon in the MS/MSD was above the instrument calibration range. The data has been reported and qualified accordingly with an "X" flag. (160-25635-A-2-B MS) and (160-25635-A-2-C MSD)

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Job ID: 160-25635-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

ICPMS Metals

Batch: 160-339977

The following samples in preparation batch 160-339723 and analytical batch 160-339977 were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution: B3FCL3 (160-25635-3), (160-25635-B-3-I MS), (160-25635-B-3-J MSD) and (160-25635-B-3-H SD). Elevated reporting limits (RLs) are provided. The associated samples have been qualified accordingly with a "D" flag.

Batch: 160-340206

The following samples in preparation batch 160-339721 and analytical batch 160-340206 were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution: B3FCL3 (160-25635-3), (160-25635-B-3-F MS), (160-25635-B-3-G MSD) and (160-25635-B-3-E SD). Elevated reporting limits (RLs) are provided. The associated samples have been qualified accordingly with a "D" flag.

Due to the high concentration of aluminum, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 160-339721 and analytical batch 160-340206 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. (160-25635-B-3-F MS) and (160-25635-B-3-G MSD)

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-339721 and analytical batch 160-340206 were outside control limits for barium and manganese. Sample matrix interference and/or non-homogeneity are suspected, because the associated laboratory control sample (LCS) recovery was within acceptance limits. (160-25635-B-3-F MS) and (160-25635-B-3-G MSD) These analytes have been qualified accordingly with an "N" flag in the associated samples.

Total Cyanide

Batch: 160-339674

The following samples in Cyanide preparation batch 160-339386 and analytical batch 160-339674 were received with insufficient time remaining to be able to analyze the samples within the holding time: B3FCL3 (160-25635-3). The samples were prepped and analyzed within 2X the holding time per CHPRC direction in SIR18-0153.

Conductivity

Batch: 160-338198

Specific Conductance was detected in method blank MB 160-338198/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "C".

TOC

Batch: 160-338838

The following sample / sample duplicate (DU) precision (%RPD) for TOC Soil preparation batch 160-338718 and analytical batch 160-338838 was outside control limits: (160-25451-B-3-A) and (160-25451-B-3-B DU). Sample non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Additionally, RPD determinations are not useful for values near the reporting limit (RL). As this sample and DU are less than 5x the RL and are approximately within the RL from each other, the results are reported with this narration.

Ammonia

Batch: 160-339361

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Job ID: 160-25635-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Ammonia (as N) was detected in method blank MB 160-338741/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "C".

There were no observations or non-conformances associated with the following methods:

- Mercury
- TIC
- pH

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Elizabeth Hoerchler
St. Louis Project Manager



SAMPLE ISSUE RESOLUTION (SIR) REPORT		SIR Number: SIR18-0153
		Rev. Number: 0
		Date Initiated: 11/22/2017
<u>SAMPLE EVENT INFORMATION</u>		
SAF NUM(S):	F17-009	
LABORATORY:	TASL	
<u>SAMPLING INFORMATION</u>		
NUMBER OF SAMPLES:	1	
SAMPLE NUMBERS:	B3FCL3	
SAMPLE MATRIX:	SOIL	
SDG NUM(S):	SL2747	
<u>ISSUE BACKGROUND</u>		
CLASS:	Field Sampling Issue	
TYPE:	Analysis Hold Time Exceeded	
DESCRIPTION:	SAMPLE COLLECTION DATE WAS 11/6/17. SAMPLES NOT RECEIVED UNTIL 11/16/17, TEN DAYS AFTER COLLECTION. THERE WAS INSUFFICIENT TIME REMAINING TO ANALYZE FOR CYANIDE WITHIN 1X HOLD.	
<u>RESOLUTION</u>		
PROPOSED RESOLUTION:	TASL PROPOSES TO CONTINUE WITH ANALYSIS AND REPORT OUTSIDE 1X HOLD. IF POSSIBLE, PLEASE HAVE FIELD SEND SAMPLES CLOSER TO COLLECTION DATE.	
FINAL RESOLUTION:	accept resolution	
SUBMITTED BY:		
AWALT, JK	_____	11/22/2017 _____
ACCEPTED BY:		
MEDLEY, HA	_____	11/22/2017 _____

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-25635-1

SDG Number: SL2747

Login Number: 25635

List Source: TestAmerica St. Louis

List Number: 1

Creator: Daniels, Brian J

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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	0.3
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 (excluding tests with immediate HTs)	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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2M Hill Plateau Remediation Company
COLLECTOR A. Parsie
SAMPLING LOCATION C9555, Core 13, B3BL07
ICE CHEST NO. 605-661
SHIPPED TO TestAmerica St. Louis

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST
COMPANY CONTACT FITZGERALD, SL
TELEPHONE NO. 373-7495
PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Sampling - Soil 20
FIELD LOGBOOK NO. 93.9 - 95.4 ft.
OFFSITE PROPERTY NO. 8747

PROJECT COORDINATOR FITZGERALD, SL
SAF NO. F17-009
PURCHASE ORDER/CHARGE CODE 302632
BILL OF LADING/AIR BILL NO. 770756696949

F17-009-880 **PAGE 1 OF 1**
REQUIRED TAT 15 Days
METHOD OF SHIPMENT ORIGINAL
FEDERAL EXPRESS

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	NO. OF CONTAINER(S)	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS	SAMPLE DATE	SAMPLE TIME	MATRIX*	DATE/TIME
A=Air DL=Drum L=Liquid DS=Drum S=Solids O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	None	1	28 Days	aG	1	120mL	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	11/06/17	12:30	SOIL	AD 11/08/17
		Cool <=6C	1	28 Days	aG	1	120mL	9060_TIC_WE: COMMON (Total Inorganic Carbon);				
		Cool <=6C	1	28 Days	aG	1	120mL	9060_TIC_WE: COMMON (Total Inorganic Carbon);				
		Cool <=6C	1	28 Days	aG	1	120mL	9060_TIC_WE: COMMON (Total Inorganic Carbon);				

CHAIN OF POSSESSION
RELINQUISHED BY/REMOVED FROM Andrew Parsie 11/08/17 11:00 AM
SIGN/ PRINT NAMES RECEIVED BY/STORED IN
 Andrew Parsie 11/08/17 11:00 AM
 Andrew Parsie 11/08/17 08:36
 Andrew Parsie 11/08/17 10:30
 Andrew Parsie 11/08/17 14:00
DATE/TIME AD 11/08/17
 NOV 08 2017 0830
 NOV 08 2017 1030
 NOV 15 2017 0930
 NOV 15 2017 1400
DISPOSAL METHOD FED EX
DISPOSED BY Brian Davis 11/16/17 09:21
DATE/TIME

SPECIAL INSTRUCTIONS
 TRVL-17-242; ** All Cations, TIC and TOC requesting Water Extraction (WE) shall use a 1:1 ratio.
 (1) 9060_TIC: COMMON (Total Inorganic Carbon); 9060_TOC: COMMON (Total organic carbon);
 (2) 6010_METALS_ICP_WE: COMMON (Aluminum, Barium, Calcium, Chromium, Iron, Magnesium, Manganese, Potassium, Silicon, Sodium);

FINAL SAMPLE DISPOSITION PRINTED ON 9/28/2017
FSR ID = FSR51846 **TRVL NUM = TRVL-17-242** **A-6003-618 (REV 3)**



CH2M Hill Plateau Remediation Company **SL2747** **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** **F17-009-879** **PAGE 1 OF 1**

COLLECTOR **A. Dansie** **COMPANY CONTACT** **FITZGERALD, SL** **TELEPHONE NO.** **373-7495** **PROJECT COORDINATOR** **FITZGERALD, SL** **REQUIRED TAT** **15 Days**

SAMPLING LOCATION **C9555, Core 13, B3BL07** **PROJECT DESIGNATION** **200-DV-1 Operable Unit Characterization of Waste Sites Sampling - Soil 20** **SAF NO.** **F17-009** **ORIGINAL AD** **11/01/17**

ICE CHEST NO. **GWS-661** **FIELD LOGBOOK NO.** **CBAL-463** **ACTUAL SAMPLE DEPTH** **93.9-95.4 ft.** **PURCHASE ORDER/CHARGE CODE** **302632** **METHOD OF SHIPMENT** **FEDERAL EXPRESS**

SHIPPED TO **TestAmerica St. Louis** **OFFSITE PROPERTY NO.** **8747** **BILL OF LADING/AIR BILL NO.** **770756696949**

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
A=Air DL=Drum L=Liquid DS=Drum S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WZ=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	Cool <=6C	28 Days	G/P	1	250mL	SEE ITEM (1) IN SPECIAL INSTRUCTIONS COMMON;
B3FCL3	N/A	Cool <=6C	28 Days	G/P	1	60mL	350.L AMMONI A: COMMON; 9012.CYANIDE: COMMON;

10 of 28

CHAIN OF POSSESSION	RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES	RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
	<i>Andie Dansie</i>	<i>11/08/17 08:30</i>	<i>Andie Dansie</i>	<i>AD</i>	<i>11/08/17</i>	TRVL-17-242 (1) 7471_MERCURY_CV: COMMON (SOLIDS); 6020_METALS_ICPMS: COMMON {Aluminum, Barium, Cadmium, Chromium, Copper, Lead, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Antimony, Arsenic, Manganese, Nickel, Silver, Uranium};
	<i>Andie Dansie</i>	<i>11/08/17 08:30</i>	<i>Andie Dansie</i>	<i>Leah Wall</i>	<i>NOV 08 2017 0830</i>	
	<i>Leah Wall</i>	<i>NOV 08 2017 1030</i>	<i>Leah Wall</i>	<i>SSU #1</i>	<i>NOV 08 2017 1030</i>	
	<i>SN-1</i>	<i>NOV 15 2017 0930</i>	<i>Leah Wall</i>	<i>Leah Wall</i>	<i>NOV 15 2017 0930</i>	
	<i>Leah Wall</i>	<i>NOV 15 2017 1400</i>	<i>Leah Wall</i>	<i>FEDEX</i>		
			<i>B-J Brian Davis</i>	<i>reference 0911</i>		

10 of 28



1
2
3
4
5
6
7
8
9
10

CHPRC PARTS AND TOOLS RETURN (PTR) FORM
PROJECT HANFORD, 2355 STEVENS DR., RICHLAND, WA 99354

REFERENCE BUSINESS PROCESS GUIDE - MATERIAL RETURNS

SECTION A - Material Information

Company <u>CHPRC</u> Date <u>11/15/17</u>	Contract Specialist Name <u>D. CAPELLE</u>	PTR No. <u>8747</u>
One of the following is REQUIRED :	Phone Number <u>5093720460</u>	Total Pieces <u>1</u>
PO/Release No. _____	Material Coordinator/P-Card Holder Name _____	
Contract/Rel. No. _____	Phone Number _____	
P-Card Log No. _____		
Other _____		

Line Item No.	Quantity	U/M	Q Level	Description (Catalog ID No., S/N, Gov. Tag No.)/Include Reason for Return	Unit Price	Value
1	1	EA		COOLER# GWS-661 GROSS WEIGHT: 44 LBS.		

SECTION B - Financial Transaction Information

Passport Purchase Order Financial Transaction - Check One

Credit - Return for Credit - PP Receipt Required

Replace - Return for Replacement - PP Receipt Required

Inventory - Return to PHMC Inventory

Return - QA-Non-NCR Material (Credit)

Contract/P-Card/Other - No Financial Transaction Created from PTR

Credit - Contract/P-Card

Repair

Ship Supplier Owned Materials, Containers, Samples, etc.

Core Charge - Return for Credit of Deposit

Replace

Over Shipment

*Requires identification of controlling Purchase Order, Contract, or PHMC Property Custodian accountable for the Govt. property in accordance with Regulations.

*Ship Govt. Owned Materials, Containers, Samples, etc.

Other

SECTION C - Hazardous Material Information

Hazardous Material <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	*T&P Inspections (req'd) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Certified Free of Contamination <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Radioactive Material <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Include appropriate shipping document.	Certifier's Name/Date
Rad. Control Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Radioactive Material is also Hazardous.	

Custodian: TROY L. BACON Current Location of Material: _____ Date Available to Ship: 11/15/17

Telephone: 5093760951

SECTION D - Vendor/Ship To Information

Ship To: TEST AMERICA- ST. LOUIS Contractor: _____

13715 Rider Trail North

Earth City, Missouri 63045

Contact: Jayna Await

Contact Phone: (314) 787-8277

RA No.: _____

F.O.B.: _____

Item	% Cost	Cost Center	CACN	COA	SECTION E - Shipping Information - To be completed by Shipping Department	SECTION F - OSD&D/Shipping Notice Information To be completed by Shipping/Procurement
ALL	100	3D220	302632	JDBA	Routing _____ B/L No. <u>770756696949</u> B/L Wt. <u>44 LBS</u> Frt. Collect _____ Acct. No. _____	By _____ Date Shipped _____ OSD&D No. _____ Shipping Notice No. _____ Receipt No. _____



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FedEx® Tracking

770756696949

Ship date:

Wed 11/15/2017

Richland, WA US

Actual delivery:

Thu 11/16/2017 9:10 am

EARTH CITY, MO US

Delivered

Signed for by: B.DANIELS

Travel History

Date/Time	Activity	Location
11/16/2017 - Thursday		
9:10 am	Delivered	EARTH CITY, MO
7:22 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:16 am	At local FedEx facility	EARTH CITY, MO
5:30 am	At destination sort facility	BERKELEY, MO
4:37 am	Departed FedEx location	MEMPHIS, TN
12:26 am	Arrived at FedEx location	MEMPHIS, TN
11/15/2017 - Wednesday		
4:55 pm	Left FedEx origin facility	PASCO, WA
12:19 pm	Shipment information sent to FedEx	
11:31 am	Picked up	PASCO, WA

Shipment Facts

Tracking Number	770756696949	Service	FedEx Priority Overnight
Weight	44 lbs / 19.96 kgs	Signature services	Direct signature required
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	44 lbs / 19.96 kgs	Terms	Third Party
Shipper reference	PTR# 8747	Packaging	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge, Direct Signature Required	Standard transit	11/16/2017 by 10:30 am

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Qualifiers

Metals

Qualifier	Qualifier Description
B	Estimated result. Result is less than the RL, but greater than MDL
U	Analyzed for but not detected.
X	See case narrative notes for explanation of the 'X' flag
D	The reported value is from a dilution.
N	Recovery exceeds upper or lower control limits

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
y	Duplicate analysis not within control limits.
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was \leq 5X the blank concentration.
U	Analyzed for but not detected.
Z	Sample was prepped or analyzed beyond the specified holding time

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7471B	Mercury (CVAA)	SW846	TAL SL
350.1	Nitrogen, Ammonia	MCAWW	TAL SL
9012B	Cyanide, Total and/or Amenable	SW846	TAL SL
9040C	pH	SW846	TAL SL
9050A	Specific Conductance	SW846	TAL SL
9060	Total Inorganic Carbon	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL
9060	Carbon, Total and Total Inorganic	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-25635-1	B3FCL4	Soil	11/06/17 12:30	11/16/17 09:25
160-25635-2	B3FCL4	Water	11/06/17 12:30	11/16/17 09:25
160-25635-3	B3FCL3	Soil	11/06/17 12:30	11/16/17 09:25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

Method: 6010C - Metals (ICP)

Client Sample ID: B3FCL4
 Date Collected: 11/06/17 12:30
 Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-2
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1850		200	50.0	ug/L		11/21/17 16:54	11/22/17 16:19	1
Barium	17.5	B	50.0	15.0	ug/L		11/21/17 16:54	11/22/17 16:19	1
Calcium	9970		1000	300	ug/L		11/21/17 16:54	11/22/17 16:19	1
Chromium	3.0	U	10.0	3.0	ug/L		11/21/17 16:54	11/22/17 16:19	1
Iron	2050		100	30.0	ug/L		11/21/17 16:54	11/22/17 16:19	1
Magnesium	3510		1000	300	ug/L		11/21/17 16:54	11/22/17 16:19	1
Manganese	26.4		15.0	4.0	ug/L		11/21/17 16:54	11/22/17 16:19	1
Potassium	4130	B	5000	1500	ug/L		11/21/17 16:54	11/22/17 16:19	1
Silicon	9770		400	125	ug/L		11/21/17 16:54	11/22/17 16:19	1
Sodium	4910		1000	300	ug/L		11/21/17 16:54	11/22/17 16:19	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3FCL3
 Date Collected: 11/06/17 12:30
 Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-3
 Matrix: Soil
 Percent Solids: 92.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8790	D	12.9	5.2	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Antimony	0.94	U D	2.3	0.94	mg/Kg	☼	11/29/17 16:18	12/01/17 05:44	10
Arsenic	2.6	D	2.6	1.0	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Barium	93.9	D N	5.2	1.3	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Cadmium	0.078	B D	0.13	0.062	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Chromium	10	D	2.6	1.2	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Copper	14.4	D	2.6	1.0	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Lead	4.2	D	0.77	0.32	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Manganese	379	N D	1.3	0.52	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Nickel	11.1	D	1.3	0.52	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Selenium	0.83	U D	1.3	0.83	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Silver	0.19	U D	0.52	0.19	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5
Uranium	7.1	D	0.26	0.10	mg/Kg	☼	11/29/17 16:17	12/02/17 05:31	5

Method: 7471B - Mercury (CVAA)

Client Sample ID: B3FCL3
 Date Collected: 11/06/17 12:30
 Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-3
 Matrix: Soil
 Percent Solids: 92.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.034	0.011	mg/Kg	☼	11/28/17 07:54	11/29/17 12:03	1

General Chemistry

Client Sample ID: B3FCL4
 Date Collected: 11/06/17 12:30
 Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-1
 Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	196		100	33.4	mg/Kg		11/22/17 11:52	11/22/17 17:28	1
Total Inorganic Carbon	944		100	33.4	mg/Kg			11/28/17 11:34	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

General Chemistry

Client Sample ID: B3FCL4
Date Collected: 11/06/17 12:30
Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.10		0.100	0.100	SU			11/20/17 23:46	1
Specific Conductance	115		1.00	0.0970	uS/cm			11/21/17 01:09	1
Total Inorganic Carbon	6.6		1.0	0.50	mg/L			11/27/17 17:19	1
Total Organic Carbon	0.77	B	1.0	0.50	mg/L			11/22/17 11:17	1

Client Sample ID: B3FCL3
Date Collected: 11/06/17 12:30
Date Received: 11/16/17 09:25

Lab Sample ID: 160-25635-3
Matrix: Soil
Percent Solids: 92.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.80	C	0.54	0.24	mg/Kg	☼	11/22/17 13:45	11/22/17 17:58	1
Cyanide, Total	0.12	U Z	0.54	0.12	mg/Kg	☼	11/28/17 15:00	11/29/17 11:42	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-338547/1-A
Matrix: Water
Analysis Batch: 338983

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 338547

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50.0	U	200	50.0	ug/L		11/21/17 16:54	11/22/17 15:57	1
Barium	15.0	U	50.0	15.0	ug/L		11/21/17 16:54	11/22/17 15:57	1
Calcium	300	U	1000	300	ug/L		11/21/17 16:54	11/22/17 15:57	1
Chromium	3.0	U	10.0	3.0	ug/L		11/21/17 16:54	11/22/17 15:57	1
Iron	30.0	U	100	30.0	ug/L		11/21/17 16:54	11/22/17 15:57	1
Magnesium	300	U	1000	300	ug/L		11/21/17 16:54	11/22/17 15:57	1
Manganese	4.0	U	15.0	4.0	ug/L		11/21/17 16:54	11/22/17 15:57	1
Potassium	1500	U	5000	1500	ug/L		11/21/17 16:54	11/22/17 15:57	1
Silicon	125	U	400	125	ug/L		11/21/17 16:54	11/22/17 15:57	1
Sodium	300	U	1000	300	ug/L		11/21/17 16:54	11/22/17 15:57	1

Lab Sample ID: LCS 160-338547/2-A
Matrix: Water
Analysis Batch: 338983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 338547

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	10000	10010		ug/L		100	80 - 120
Barium	1000	1003		ug/L		100	80 - 120
Calcium	10000	9642		ug/L		96	80 - 120
Chromium	1000	965.4		ug/L		97	80 - 120
Iron	10000	9728		ug/L		97	80 - 120
Magnesium	10000	9726		ug/L		97	80 - 120
Manganese	1000	977.6		ug/L		98	80 - 120
Potassium	10000	9159		ug/L		92	80 - 120
Silicon	5000	4717		ug/L		94	80 - 120
Sodium	10000	9725		ug/L		97	80 - 120

Lab Sample ID: 160-25635-2 MS
Matrix: Water
Analysis Batch: 338983

Client Sample ID: B3FCL4
Prep Type: Total/NA
Prep Batch: 338547

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	1850		10000	11910		ug/L		101	75 - 125
Barium	17.5	B	1000	1028		ug/L		101	75 - 125
Calcium	9970		10000	19630		ug/L		97	75 - 125
Chromium	3.0	U	1000	977.9		ug/L		98	75 - 125
Iron	2050		10000	11650		ug/L		96	75 - 125
Magnesium	3510		10000	13230		ug/L		97	75 - 125
Manganese	26.4		1000	1013		ug/L		99	75 - 125
Potassium	4130	B	10000	13910		ug/L		98	75 - 125
Silicon	9770		5000	14560	X	ug/L		96	75 - 125
Sodium	4910		10000	14980		ug/L		101	75 - 125

Lab Sample ID: 160-25635-2 MSD
Matrix: Water
Analysis Batch: 338983

Client Sample ID: B3FCL4
Prep Type: Total/NA
Prep Batch: 338547

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	1850		10000	11930		ug/L		101	75 - 125	0	20

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QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

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

Lab Sample ID: 160-25635-2 MSD
Matrix: Water
Analysis Batch: 338983

Client Sample ID: B3FCL4
Prep Type: Total/NA
Prep Batch: 338547

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	17.5	B	1000	1017		ug/L		100	75 - 125	1	20
Calcium	9970		10000	19230		ug/L		93	75 - 125	2	20
Chromium	3.0	U	1000	958.5		ug/L		96	75 - 125	2	20
Iron	2050		10000	11670		ug/L		96	75 - 125	0	20
Magnesium	3510		10000	13040		ug/L		95	75 - 125	1	20
Manganese	26.4		1000	1004		ug/L		98	75 - 125	1	20
Potassium	4130	B	10000	13640		ug/L		95	75 - 125	2	20
Silicon	9770		5000	14860	X	ug/L		102	75 - 125	2	20
Sodium	4910		10000	14710		ug/L		98	75 - 125	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-339721/1-A
Matrix: Solid
Analysis Batch: 340206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.8	U D	4.5	1.8	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Arsenic	0.36	U D	0.91	0.36	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Barium	0.45	U D	1.8	0.45	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Cadmium	0.022	U D	0.045	0.022	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Chromium	0.41	U D	0.91	0.41	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Copper	0.36	U D	0.91	0.36	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Lead	0.11	U D	0.27	0.11	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Manganese	0.18	U D	0.45	0.18	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Nickel	0.18	U D	0.45	0.18	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Selenium	0.29	U D	0.45	0.29	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Silver	0.068	U D	0.18	0.068	mg/Kg		11/29/17 16:17	12/02/17 05:11	2
Uranium	0.036	U D	0.091	0.036	mg/Kg		11/29/17 16:17	12/02/17 05:11	2

Lab Sample ID: LCS 160-339721/2-A
Matrix: Solid
Analysis Batch: 340206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium	89.5	90.06	D	mg/Kg		101	80 - 120

Lab Sample ID: LCSSRM 160-339721/3-A
Matrix: Solid
Analysis Batch: 340206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339721

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	7065	D	mg/Kg		87.3	39.6 - 160.7
Arsenic	100	101.0	D	mg/Kg		101.0	69.6 - 131.0
Barium	217	223.5	D	mg/Kg		103.0	73.7 - 128.1
Cadmium	83.7	84.32	D	mg/Kg		100.7	73.2 - 131.4

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

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

Lab Sample ID: LCSSRM 160-339721/3-A
Matrix: Solid
Analysis Batch: 340206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339721

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	107	101.0	D	mg/Kg		94.4	69.4 - 134.6
Copper	166	169.2	D	mg/Kg		101.9	75.3 - 128.3
Lead	88.4	86.49	D	mg/Kg		97.8	69.9 - 130.1
Manganese	311	317.9	D	mg/Kg		102.2	74.9 - 125.4
Nickel	49.8	53.72	D	mg/Kg		107.9	69.1 - 135.1
Selenium	87.7	90.76	D	mg/Kg		103.5	64.1 - 135.7
Silver	41.4	41.20	D	mg/Kg		99.5	65.9 - 133.8

Lab Sample ID: 160-25635-3 MS
Matrix: Soil
Analysis Batch: 340206

Client Sample ID: B3FCL3
Prep Type: Total/NA
Prep Batch: 339721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8790	D	967	11680	X D	mg/Kg	☼	299	75 - 125
Arsenic	2.6	D	96.7	101.5	D	mg/Kg	☼	102	75 - 125
Barium	93.9	D N	96.7	218.7	D N	mg/Kg	☼	129	75 - 125
Cadmium	0.078	B D	96.7	96.18	D	mg/Kg	☼	99	75 - 125
Chromium	10	D	96.7	109.0	D	mg/Kg	☼	102	75 - 125
Copper	14.4	D	96.7	119.2	D	mg/Kg	☼	108	75 - 125
Lead	4.2	D	96.7	103.2	D	mg/Kg	☼	102	75 - 125
Manganese	379	N D	96.7	541.1	D N	mg/Kg	☼	167	75 - 125
Nickel	11.1	D	96.7	114.7	D	mg/Kg	☼	107	75 - 125
Selenium	0.83	U D	48.3	47.94	D	mg/Kg	☼	99	75 - 125
Silver	0.19	U D	19.3	19.36	D	mg/Kg	☼	100	75 - 125
Uranium	7.1	D	96.7	107.3	D	mg/Kg	☼	104	75 - 125

Lab Sample ID: 160-25635-3 MSD
Matrix: Soil
Analysis Batch: 340206

Client Sample ID: B3FCL3
Prep Type: Total/NA
Prep Batch: 339721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	8790	D	953	11600	X D	mg/Kg	☼	296	75 - 125	1	30
Arsenic	2.6	D	95.3	98.57	D	mg/Kg	☼	101	75 - 125	3	30
Barium	93.9	D N	95.3	208.7	D	mg/Kg	☼	121	75 - 125	5	30
Cadmium	0.078	B D	95.3	92.51	D	mg/Kg	☼	97	75 - 125	4	30
Chromium	10	D	95.3	106.0	D	mg/Kg	☼	101	75 - 125	3	30
Copper	14.4	D	95.3	113.6	D	mg/Kg	☼	104	75 - 125	5	30
Lead	4.2	D	95.3	99.08	D	mg/Kg	☼	100	75 - 125	4	30
Manganese	379	N D	95.3	525.5	N D	mg/Kg	☼	153	75 - 125	3	30
Nickel	11.1	D	95.3	111.7	D	mg/Kg	☼	106	75 - 125	3	30
Selenium	0.83	U D	47.6	48.72	D	mg/Kg	☼	102	75 - 125	2	30
Silver	0.19	U D	19.1	18.52	D	mg/Kg	☼	97	75 - 125	4	30
Uranium	7.1	D	95.3	105.7	D	mg/Kg	☼	103	75 - 125	2	30

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

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

Lab Sample ID: MB 160-339723/1-A
 Matrix: Solid
 Analysis Batch: 339977

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 339723

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.18	U D	0.46	0.18	mg/Kg		11/29/17 16:18	12/01/17 05:31	2

Lab Sample ID: LCS 160-339723/2-A
 Matrix: Solid
 Analysis Batch: 339977

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 339723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	48.2	43.14	D	mg/Kg		90	21 - 251

Lab Sample ID: 160-25635-3 MS
 Matrix: Soil
 Analysis Batch: 339977

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.94	U D	52.6	48.46	D	mg/Kg	☼	92	75 - 125

Lab Sample ID: 160-25635-3 MSD
 Matrix: Soil
 Analysis Batch: 339977

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339723

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.94	U D	49.7	46.45	D	mg/Kg	☼	93	75 - 125	4	30

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 160-339211/1-A
 Matrix: Solid
 Analysis Batch: 339695

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 339211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.032	0.011	mg/Kg		11/28/17 07:54	11/29/17 11:59	1

Lab Sample ID: LCSSRM 160-339211/2-A
 Matrix: Solid
 Analysis Batch: 339695

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 339211

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Mercury	12.3	10.87	D	mg/Kg		88.4	51.4 - 148.8

Lab Sample ID: 160-25635-3 MS
 Matrix: Soil
 Analysis Batch: 339695

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.011	U	0.808	0.793		mg/Kg	☼	98	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 160-25635-3 MSD
 Matrix: Soil
 Analysis Batch: 339695

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.011	U	0.864	0.877		mg/Kg	☼	102	80 - 120	10	30

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 160-338741/1-A
 Matrix: Solid
 Analysis Batch: 339361

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 338741

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.373	B	0.50	0.22	mg/Kg		11/22/17 13:45	11/22/17 17:27	1

Lab Sample ID: LCS 160-338741/2-A
 Matrix: Solid
 Analysis Batch: 339361

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 338741

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	5.00	4.75		mg/Kg		95	90 - 110

Lab Sample ID: 160-25532-B-1-D MS
 Matrix: Solid
 Analysis Batch: 339361

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 338741

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	2.2		5.13	7.07		mg/Kg	☼	95	90 - 110

Lab Sample ID: 160-25532-B-1-C DU
 Matrix: Solid
 Analysis Batch: 339361

Client Sample ID: Duplicate
 Prep Type: Total/NA
 Prep Batch: 338741

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ammonia (as N)	2.2		2.31		mg/Kg	☼	5	30

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 160-339386/1-A
 Matrix: Solid
 Analysis Batch: 339674

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 339386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.11	U	0.50	0.11	mg/Kg		11/28/17 15:00	11/29/17 11:22	1

Lab Sample ID: HLCS 160-339386/3-A
 Matrix: Solid
 Analysis Batch: 339674

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 339386

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	4.80	4.71		mg/Kg		98	85 - 115

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 160-339386/2-A
 Matrix: Solid
 Analysis Batch: 339674

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 339386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	2.40	2.47		mg/Kg		103	85 - 115

Lab Sample ID: 160-25635-3 MS
 Matrix: Soil
 Analysis Batch: 339674

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339386

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.12	U Z	2.56	2.68		mg/Kg	☼	105	60 - 130

Lab Sample ID: 160-25635-3 DU
 Matrix: Soil
 Analysis Batch: 339674

Client Sample ID: B3FCL3
 Prep Type: Total/NA
 Prep Batch: 339386

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	0.12	U Z	0.12	U	mg/Kg	☼	NC	30

Method: 9040C - pH

Lab Sample ID: LCS 160-338200/6
 Matrix: Water
 Analysis Batch: 338200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
pH	7.00	6.980		SU		100	99.0 - 101.0

Lab Sample ID: 160-25451-A-11 DU
 Matrix: Water
 Analysis Batch: 338200

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	9.97		10.03		SU		0.6	5

Method: 9050A - Specific Conductance

Lab Sample ID: MB 160-338198/2
 Matrix: Water
 Analysis Batch: 338198

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	0.370	B	1.00	0.0970	uS/cm			11/21/17 00:57	1

Lab Sample ID: LCS 160-338198/3
 Matrix: Water
 Analysis Batch: 338198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Specific Conductance	500	500.0		uS/cm		100	85 - 115

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Method: 9050A - Specific Conductance (Continued)

Lab Sample ID: 160-25451-A-11 MS
Matrix: Water
Analysis Batch: 338198

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	362		1410	1730		uS/cm		97	75 - 125

Lab Sample ID: 160-25451-A-11 DU
Matrix: Water
Analysis Batch: 338198

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	362		366.0		uS/cm		1	20

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 160-338718/1-A
Matrix: Solid
Analysis Batch: 338838

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 338718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	33.4	U	100	33.4	mg/Kg		11/21/17 17:30	11/22/17 15:43	1

Lab Sample ID: LCS 160-338718/2-A
Matrix: Solid
Analysis Batch: 338838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 338718

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5860	5562		mg/Kg		95	49 - 117

Lab Sample ID: 160-25451-B-3-C MS
Matrix: Solid
Analysis Batch: 338838

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 338718

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	214	y	1000	1645		mg/Kg		143	50 - 150

Lab Sample ID: 160-25451-B-3-B DU
Matrix: Solid
Analysis Batch: 338838

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 338718

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	214	y	354.8	y	mg/Kg		50	30

Lab Sample ID: MB 160-338725/4
Matrix: Water
Analysis Batch: 338725

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			11/21/17 18:48	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

Method: 9060 - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 160-338725/5
 Matrix: Water
 Analysis Batch: 338725

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.79		mg/L		98	90 - 110

Method: 9060 - Organic Carbon, Total (TOC) - DL

Lab Sample ID: 160-25451-A-12 MS ^5
 Matrix: Water
 Analysis Batch: 338725

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - DL	9.2	D	25.0	31.33	D	mg/L		89	76 - 120

Lab Sample ID: 160-25451-A-12 DU ^5
 Matrix: Water
 Analysis Batch: 338725

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - DL	9.2	D	9.24	D	mg/L		1	20

Method: 9060 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 160-339182/4
 Matrix: Water
 Analysis Batch: 339182

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	0.50	U	1.0	0.50	mg/L			11/27/17 15:29	1

Lab Sample ID: LCS 160-339182/5
 Matrix: Water
 Analysis Batch: 339182

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Inorganic Carbon	10.0	10.24		mg/L		102	85 - 129

Lab Sample ID: 160-25635-2 MS
 Matrix: Water
 Analysis Batch: 339182

Client Sample ID: B3FCL4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Inorganic Carbon	6.6		5.01	12.29		mg/L		113	76 - 120

Lab Sample ID: 160-25635-2 DU
 Matrix: Water
 Analysis Batch: 339182

Client Sample ID: B3FCL4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Inorganic Carbon	6.6		6.85		mg/L		3	20

TestAmerica St. Louis

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Metals

Prep Batch: 338547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	3010A	
MB 160-338547/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-338547/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-25635-2 MS	B3FCL4	Total/NA	Water	3010A	
160-25635-2 MSD	B3FCL4	Total/NA	Water	3010A	

Analysis Batch: 338983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	6010C	338547
MB 160-338547/1-A	Method Blank	Total/NA	Water	6010C	338547
LCS 160-338547/2-A	Lab Control Sample	Total/NA	Water	6010C	338547
160-25635-2 MS	B3FCL4	Total/NA	Water	6010C	338547
160-25635-2 MSD	B3FCL4	Total/NA	Water	6010C	338547

Prep Batch: 339211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	7471B	
MB 160-339211/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 160-339211/2-A	Lab Control Sample	Total/NA	Solid	7471B	
160-25635-3 MS	B3FCL3	Total/NA	Soil	7471B	
160-25635-3 MSD	B3FCL3	Total/NA	Soil	7471B	

Analysis Batch: 339695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	7471B	339211
MB 160-339211/1-A	Method Blank	Total/NA	Solid	7471B	339211
LCSSRM 160-339211/2-A	Lab Control Sample	Total/NA	Solid	7471B	339211
160-25635-3 MS	B3FCL3	Total/NA	Soil	7471B	339211
160-25635-3 MSD	B3FCL3	Total/NA	Soil	7471B	339211

Prep Batch: 339721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	3050B	
MB 160-339721/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 160-339721/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 160-339721/3-A	Lab Control Sample	Total/NA	Solid	3050B	
160-25635-3 MS	B3FCL3	Total/NA	Soil	3050B	
160-25635-3 MSD	B3FCL3	Total/NA	Soil	3050B	

Prep Batch: 339723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	3050B-Sb	
MB 160-339723/1-A	Method Blank	Total/NA	Solid	3050B-Sb	
LCS 160-339723/2-A	Lab Control Sample	Total/NA	Solid	3050B-Sb	
160-25635-3 MS	B3FCL3	Total/NA	Soil	3050B-Sb	
160-25635-3 MSD	B3FCL3	Total/NA	Soil	3050B-Sb	

Analysis Batch: 339977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	6020A	339723
MB 160-339723/1-A	Method Blank	Total/NA	Solid	6020A	339723

TestAmerica St. Louis

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
SDG: SL2747

Metals (Continued)

Analysis Batch: 339977 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-339723/2-A	Lab Control Sample	Total/NA	Solid	6020A	339723
160-25635-3 MS	B3FCL3	Total/NA	Soil	6020A	339723
160-25635-3 MSD	B3FCL3	Total/NA	Soil	6020A	339723

Analysis Batch: 340206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	6020A	339721
MB 160-339721/1-A	Method Blank	Total/NA	Solid	6020A	339721
LCS 160-339721/2-A	Lab Control Sample	Total/NA	Solid	6020A	339721
LCSSRM 160-339721/3-A	Lab Control Sample	Total/NA	Solid	6020A	339721
160-25635-3 MS	B3FCL3	Total/NA	Soil	6020A	339721
160-25635-3 MSD	B3FCL3	Total/NA	Soil	6020A	339721

General Chemistry

Analysis Batch: 337745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-1	B3FCL4	Total/NA	Soil	Moisture	
160-25635-3	B3FCL3	Total/NA	Soil	Moisture	
160-25635-3 DU	B3FCL3	Total/NA	Soil	Moisture	

Analysis Batch: 338198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	9050A	
MB 160-338198/2	Method Blank	Total/NA	Water	9050A	
LCS 160-338198/3	Lab Control Sample	Total/NA	Water	9050A	
160-25451-A-11 MS	Matrix Spike	Total/NA	Water	9050A	
160-25451-A-11 DU	Duplicate	Total/NA	Water	9050A	

Analysis Batch: 338200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	9040C	
LCS 160-338200/6	Lab Control Sample	Total/NA	Water	9040C	
160-25451-A-11 DU	Duplicate	Total/NA	Water	9040C	

Prep Batch: 338718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-1	B3FCL4	Total/NA	Soil	None	
MB 160-338718/1-A	Method Blank	Total/NA	Solid	None	
LCS 160-338718/2-A	Lab Control Sample	Total/NA	Solid	None	
160-25451-B-3-C MS	Matrix Spike	Total/NA	Solid	None	
160-25451-B-3-B DU	Duplicate	Total/NA	Solid	None	

Analysis Batch: 338725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	9060	
MB 160-338725/4	Method Blank	Total/NA	Water	9060	
LCS 160-338725/5	Lab Control Sample	Total/NA	Water	9060	
160-25451-A-12 MS ^5 - DL	Matrix Spike	Total/NA	Water	9060	
160-25451-A-12 DU ^5 - DL	Duplicate	Total/NA	Water	9060	

TestAmerica St. Louis

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-25635-1
 SDG: SL2747

General Chemistry (Continued)

Prep Batch: 338741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	DILeach_Prep	
MB 160-338741/1-A	Method Blank	Total/NA	Solid	DILeach_Prep	
LCS 160-338741/2-A	Lab Control Sample	Total/NA	Solid	DILeach_Prep	
160-25532-B-1-D MS	Matrix Spike	Total/NA	Solid	DILeach_Prep	
160-25532-B-1-C DU	Duplicate	Total/NA	Solid	DILeach_Prep	

Analysis Batch: 338838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-1	B3FCL4	Total/NA	Soil	9060	338718
MB 160-338718/1-A	Method Blank	Total/NA	Solid	9060	338718
LCS 160-338718/2-A	Lab Control Sample	Total/NA	Solid	9060	338718
160-25451-B-3-C MS	Matrix Spike	Total/NA	Solid	9060	338718
160-25451-B-3-B DU	Duplicate	Total/NA	Solid	9060	338718

Analysis Batch: 339182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-2	B3FCL4	Total/NA	Water	9060	
MB 160-339182/4	Method Blank	Total/NA	Water	9060	
LCS 160-339182/5	Lab Control Sample	Total/NA	Water	9060	
160-25635-2 MS	B3FCL4	Total/NA	Water	9060	
160-25635-2 DU	B3FCL4	Total/NA	Water	9060	

Analysis Batch: 339361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	350.1	338741
MB 160-338741/1-A	Method Blank	Total/NA	Solid	350.1	338741
LCS 160-338741/2-A	Lab Control Sample	Total/NA	Solid	350.1	338741
160-25532-B-1-D MS	Matrix Spike	Total/NA	Solid	350.1	338741
160-25532-B-1-C DU	Duplicate	Total/NA	Solid	350.1	338741

Analysis Batch: 339367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-1	B3FCL4	Total/NA	Soil	9060	

Prep Batch: 339386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	9010C	
MB 160-339386/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 160-339386/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 160-339386/2-A	Lab Control Sample	Total/NA	Solid	9010C	
160-25635-3 MS	B3FCL3	Total/NA	Soil	9010C	
160-25635-3 DU	B3FCL3	Total/NA	Soil	9010C	

Analysis Batch: 339674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-25635-3	B3FCL3	Total/NA	Soil	9012B	339386
MB 160-339386/1-A	Method Blank	Total/NA	Solid	9012B	339386
HLCS 160-339386/3-A	Lab Control Sample	Total/NA	Solid	9012B	339386
LCS 160-339386/2-A	Lab Control Sample	Total/NA	Solid	9012B	339386
160-25635-3 MS	B3FCL3	Total/NA	Soil	9012B	339386
160-25635-3 DU	B3FCL3	Total/NA	Soil	9012B	339386

TestAmerica St. Louis