June 30, 2017

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: 280-98147-1
TestAmerica Sample Delivery Group: DN0150
Client Project/Site: W17-006 / S17-006 / S17-007

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

Attn: Mr. Scot Fitzgerald

Darlene Bandy

Authorized for release by:
6/30/2017 4:59:37 PM

Darlene Bandy, Project Manager I
(303)736-0100
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LINKS

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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.

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Job ID: 280-98147-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: CH2M Hill Plateau Remediation Company

Job Number: 280-98147-1

SDG #: DN0150
SAF#(s): W17-006 / S17-006 / S17-007

Date SDG Closed: June 9, 2017
Data Deliverable: 30 Day / Summary

With 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. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD = Matrix Spike/Matrix Spike Duplicate

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

RECEIPT
The samples were received on 6/9/2017 9:00 AM; the samples arrived in good condition and properly preserved, except as noted below. The temperature of the cooler at receipt was 18.2º C.

Receipt Exceptions
The following sample was received at the laboratory outside the required temperature criteria: The 250mL unpreserved container for Alkalinity 2320B analysis submitted for sample B39RD6 (280-98147-7). The client was contacted regarding this issue, and the laboratory was instructed to cancel the Alkalinity 2320B analysis (SIR17-746).

DISSOLVED METALS (ICP)
Samples B39P11 (280-98147-1), B3B6T2 (280-98147-5) and B39RD6 (280-98147-7) were analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6010C. The samples were prepared on 06/14/2017 and analyzed on 06/15/2017 and 06/16/2017.

No analytical or quality issues were noted.

TOTAL METALS (ICP)
Samples B39XT3 (280-98147-2), B3B6R7 (280-98147-6) and B39WK6 (280-98147-8) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 06/22/2017 and analyzed on 06/23/2017 and 06/24/2017.

Calcium, Manganese, Potassium and Sodium were detected in method blank MB 280-377213/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “B”. Because the concentrations in the method blank were not present at levels greater than half the RL, corrective action is deemed unnecessary. If the associated samples reported a result above the MDL and/or RL and the method blank concentration was greater than 5% of the sample concentration, the result has been flagged “C”.

No additional analytical or quality issues were noted.

DISSOLVED METALS (ICPMS)
Samples B39PR7 (280-98147-4), B3B6T2 (280-98147-5), B39RD6 (280-98147-7), B39R64 (280-98147-10), B39R52 (280-98147-11), B39R76 (280-98147-14), B39R40 (280-98147-15), B39PY4 (280-98147-18) and B39R46 (280-98147-20) were analyzed for dissolved

Job ID: 280-98147-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 06/22/2017 and analyzed on 06/23/2017.

The Chain of Custody requests "6020_METALS_ICPMS: GW 01" analysis. Service List "6020_METALS_ICPMS: GW 01" includes Aluminum and Strontium, and while TestAmerica Denver holds Washington State (WDOE) accreditation for method 6020A, Aluminum and Strontium are currently listed on the certificate as having interim accreditation. TestAmerica Denver is pursuing full WDOE accreditation for these two elements. As instructed by the client, the laboratory proceeded with the requested Aluminum and Strontium analyses by method 6020A.

The accuracy and precision of Strontium in the MS/MSD performed on sample B3B6T2 (280-98147-5) in prep batch 280-377199 could not be reliably calculated due to the sample concentration reading greater than four times the spike amount. Control limits are not applicable and the MS/MSD results have been flagged "X".

The CCVL associated with analysis batch 280-377572 recovered below the lower control limit for Strontium. The samples associated with this CCVL were >10x the CCVL concentration for the affected element; therefore, corrective action is deemed unnecessary. The associated CCV met quality control acceptance criteria.

No additional analytical or quality issues were noted.

TOTAL METALS (ICPMS)

Samples B39PR3 (280-98147-3), B3B6R7 (280-98147-6), B39WK6 (280-98147-8), B39R61 (280-98147-9), B39R48 (280-98147-12), B39R73 (280-98147-13), B39R36 (280-98147-16), B39PY0 (280-98147-17) and B39R43 (280-98147-19) were analyzed for total metals (ICPMS) in accordance with SW846 6020A. The samples were prepared on 06/14/2017 and analyzed on 06/15/2017.

The Chain of Custody requests "6020_METALS_ICPMS: GW 01" analysis. Service List "6020_METALS_ICPMS: GW 01" includes Aluminum and Strontium, and while TestAmerica Denver holds Washington State (WDOE) accreditation for method 6020A, Aluminum and Strontium are currently listed on the certificate as having interim accreditation. TestAmerica Denver is pursuing full WDOE accreditation for these two elements. As instructed by the client, the laboratory proceeded with the requested Aluminum and Strontium analyses by method 6020A.

The accuracy and precision of Strontium in the MS/MSD performed on sample B3B6R7 (280-98147-6) in prep batch 280-377214 could not be reliably calculated due to the sample concentration reading greater than four times the spike amount. Control limits are not applicable and the MS/MSD results have been flagged "X".

The low level continuing calibration verification (CCVL) associated with analysis batch 280-377572 recovered above the upper control limit for Aluminum. The samples associated with this CCVL were non-detect for the affected element; therefore, corrective action is deemed unnecessary.

The CCVL associated with analysis batch 280-377572 recovered below the lower control limit for Strontium. The samples associated with this CCVL were >10x the CCVL concentration for the affected element; therefore, corrective action is deemed unnecessary. The associated CCV met quality control acceptance criteria.

No additional analytical or quality issues were noted.

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:

Darlene Bandy
Project Manager

SAMPLE ISSUE RESOLUTION

SIR NUM	SIR17-746
REV NUM	0
DATE INITIATED	5/13/2017

SAMPLE EVENT INFORMATION

SAF NUM(S)	S17-006
OPERABLE UNIT(S)	
PROJECT(S)	SURV17
SAMPLE EVENT TITLE(S)	SURV17
LABORATORY	TestAmerica Denver

SAMPLING INFORMATION

NUMBER OF SAMPLES	1
SAMPLE NUMBERS	B39RD6
SAMPLE MATRIX	WATER
COLLECTION DATE	-
SDG NUM	

ISSUE BACKGROUND

CLASS	Field Sampling Issue
TYPE	Incorrect Sample Preservation
DESCRIPTION	The 250mL unpreserved container submitted for sample B39RD6, requesting Alkalinity 2320B analysis, was received at the laboratory at an elevated temperature of 18.2 degrees C, outside of the 0-6 degrees C temperature requirements. It can be noted that this temperature was acceptable for all other sample volumes received, as thermal preservation is not required for Metals analysis.

DISPOSITION

DESCRIPTION	TADN proposes to either proceed with the Alkalinity analysis or cancel the Alkalinity analysis for sample B39RD6.
JUSTIFICATION	Final Disposition: Cancel alkalinity analysis. SUBMITTED BY: Darlene Bandy DATE: 06/13/2017 ACCEPTED BY: Scot Fitzgeraldl DATE: 06/13/2017

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 280-98147-1
SDG Number: DN0150

Login Number: 98147
List Number: 1
Creator: Parrott, Gregg S

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.	False	
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	18.2°C
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W17-006-193**

Collector	Juan Aguilar /CHPRC DN0150	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	W17-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, JUNE 2017	**Logbook No.**	HNF-N-506 88/75	**Ice Chest No.**	GW5-320
Shipped To (Lab)	TestAmerica Denver	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7793 3795 1460
Protocol	RCRA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39P11	Y	W	6-8-17	1302	1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B39XT3	N	W	6-8-17	1302	1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2

280-98147 Chain of Custody

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Juan Aguilar /CHPRC			JUN 0 8 2017 1312	Lesly Wall /CHPRC			JUN 0 8 2017 1312
Lesly Wall /CHPRC			JUN 0 8 2017 1400	FEDEX			
FedEx			6/9/17 0900	Gregg Parrott			6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids		
SE	= Sediment	DL	= Drum Liquids		
SO	= Solid	T	= Tissue		
SL	= Sludge	WI	= Wipe		
W	= Water	L	= Liquid		
O	= Oil	V	= Vegetation		
A	= Air	X	= Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 4/26/2017

FSR ID = FSR44254 18.2°, IR#7, -0.0, 6/9/17 GP

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-006-008 Page 1 of 1

Collector	Dan Woehle CHPRC DN0150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 92 / 89	Ice Chest No.	GWS-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7793 3795 1460
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458 1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39PR3	N	W	JUN 08 2017	1113	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39PR7	Y	W	JUN 08 2017	1113	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dan Woehle CHPRC			JUN 08 2017 1310	Lesly Wall /CHPRC			JUN 08 2017 1310
Lesly Wall /CHPRC			JUN 08 2017 1400	FEDEX			
FedEx			6/9/17 0900	Gregg Parrott			6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR44544 A-6004-842 (REV 2)

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-007-183 Page 1 of 1

Collector	Dan Woehle CHPRC DN0150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2017	Logbook No.	HNF-N-506 92/89	Ice Chest No.	GW5-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7793 3715 1460
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3B6T2	Y	W	JUN 08 2017	1209	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	6 Months	HNO3 to pH <2
B3B6R7	N	W	JUN 08 2017	1209	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dan Woehle CHPRC			JUN 08 2017 1310	Lesly Wall CHPRC			JUN 08 2017 1310
Relinquished By			Date/Time	Received By			Date/Time
Lesly Wall CHPRC			JUN 08 2017 1400	FEDEX			
Relinquished By			Date/Time	Received By			Date/Time
Fed Ex			6/9/17 0900		Gregg Parrott		6/9/17 0900
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solids		
SE	= Sediment	DL	= Drum Liquids		
SO	= Solid	T	= Tissue		
SL	= Sludge	WI	= Wipe		
W	= Water	L	= Liquid		
O	= Oil	V	= Vegetation		
A	= Air	X	= Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 5/22/2017 FSR ID = FSR25421 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S17-006-531**

Collector	Dan Woehle CHPRC DN0150	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S17-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JUNE 2017	**Logbook No.**	HNF-N-506 92 / 189	**Ice Chest No.**	GW5-320
Shipped To (Lab)	TestAmerica Denver	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	77933795 1460
Protocol	SURV	**Priority:**	30 Days PRIORITY	**Offsite Property No.**	8016

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39RD6	Y	W	JUN 0 8 2017	1227	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39RD6	Y	W	JUN 0 8 2017	1227	1x250-mL G/P	2320_ALKALINITY: GW 01	14 Days	Cool <=6C
B39WK6	N	W	JUN 0 8 2017	1227	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dan Woehle CHPRC			JUN 0 8 2017 1310	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1310
Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1400				
FedEx			6/9/17 0900	FEDEX	Gregg Parrott		6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids		
SE	= Sediment	DL	= Drum Liquids		
SO	= Solid	T	= Tissue		
SL	= Sludge	WI	= Wipe		
W	= Water	L	= Liquid		
O	= Oil	V	= Vegetation		
A	= Air	X	= Other		

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/26/2017 **FSR ID = FSR41339** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S17-006-217**

Collector	Larry Rosane /CHPRC DN0150	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S17-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JUNE 2017	**Logbook No.**	HNF-N-506 93/49	**Ice Chest No.**	6005-320
Shipped To (Lab)	TestAmerica Denver	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7293 3795 1460
Protocol	SURV	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39R61	N		JUN 0 8 2017	0925	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39R64	Y	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		JUN 0 8 2017 1055	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1055
Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1400	FEDEX			
Fed Ex			6/9/17 0900	Gregg Pacott			6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR44687 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-006-016 Page 1 of 1

Collector	Larry Rosane /CHPRC DNG150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 9349	Ice Chest No.	GWS-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	2793/3795 1460
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458 1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39R52	Y	W	JUN 0 8 2017	0915	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39R48	N	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane	JUN 0 8 2017 1055	Lesky Wall /CHPRC	Lesky Wall	JUN 0 8 2017 1055
Lesky Wall /CHPRC	Lesky Wall	JUN 0 8 2017 1400		FEDEX	
FedEx		6/9/17 0900		Gregg Parcott	6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR44685 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-006-218 Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006 DN0150	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/49	Ice Chest No.	GWS-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7793 3796 1460
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39R73	N	W	JUN 0 8 2017	1036	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39R76	Y	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		JUN 0 8 2017 1055	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1055
Relinquished By	Lesly Wall /CHPRC	Lesly Wall	JUN 0 8 2017 1400	Received By			Date/Time
Relinquished By	FedEx		6/9/17 0900	Received By	FEDEX Gregg Parrott		6/9/17 0900
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR2856 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S17-006-015**

Collector	Larry Rosane /CHPRC DN0150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/49	Ice Chest No.	GWS-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7793378514 00
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39R40	Y	W	JUN 0 8 2017	0944	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39R36	N	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		JUN 0 8 2017 1055	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1055
Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1400	FEDEX			
FedEx			6/9/17 0900	Gregg Parrott			6/9/17 0900
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR44558 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-006-010 Page 1 of 1

Collector	Larry Rosane /CHPRC DN0150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/49	Ice Chest No.	605-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7793395 1460
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39PY0	N	W	JUN 0 8 2017	0850	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39PY4	Y	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		JUN 0 8 2017 1055	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1055
Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1400	FEDEX			
FedEx			6/9/17 0900	Gregg Parrett			6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids		
SE	= Sediment	DL	= Drum Liquids		
SO	= Solid	T	= Tissue		
SL	= Sludge	WI	= Wipe		
W	= Water	L	= Liquid		
O	= Oil	V	= Vegetation		
A	= Air	X	= Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR31821 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S17-006-215**

Collector	Larry Rosane /CHPRC DNG150	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/49	Ice Chest No.	GW05-320
Shipped To (Lab)	TestAmerica Denver	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	2293 3795 1460
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	8018

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39R43	N	W	JUN 0 8 2017	0904	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B39R46	Y	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		JUN 0 8 2017 1055	Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1055
Lesly Wall /CHPRC	Lesly Wall		JUN 0 8 2017 1400	FEDEX			
Fed Ex				Gregg Parrott	Gregg Parrott		6/9/17 0900

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/26/2017 FSR ID = FSR44559 A-6004-842 (REV 2)

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Hurricane Season Readiness. Learn More

FedEx ® Tracking

779337951460

Ship date:		Actual delivery:
Thu 6/08/2017		**Fri 6/09/2017 8:52 am**
Richland, WA US	**Delivered** *Signed for by: J.TRUE*	ARVADA, CO US

Travel History

Date/Time	Activity	Location
- 6/09/2017 - Friday		
8:52 am	Delivered	ARVADA, CO
8:42 am	On FedEx vehicle for delivery	ARVADA, CO
7:30 am	At local FedEx facility	ARVADA, CO
4:53 am	At destination sort facility	DENVER, CO
3:42 am	Departed FedEx location	MEMPHIS, TN
12:25 am	Arrived at FedEx location	MEMPHIS, TN
- 6/08/2017 - Thursday		
4:50 pm	Left FedEx origin facility	PASCO, WA
4:06 pm	Shipment information sent to FedEx	
3:19 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779337951460	**Service**	FedEx Priority Overnight
Weight	53 lbs / 24.04 kgs	**Signature services**	Direct signature required
Delivered To	Receptionist/Front Desk	**Total pieces**	1
Total shipment weight	53 lbs / 24.04 kgs	**Terms**	Third Party
Shipper reference	8018	**Packaging**	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge, Direct Signature Required	**Standard transit**	6/09/2017 by 10:30 am

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Qualifiers

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
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 </= 5X the blank concentration.
X	See case narrative notes for explanation of the 'X' flag

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: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN

Protocol References:

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: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-98147-1	B39P11	Water	06/08/17 13:02	06/09/17 09:00
280-98147-2	B39XT3	Water	06/08/17 13:02	06/09/17 09:00
280-98147-3	B39PR3	Water	06/08/17 11:13	06/09/17 09:00
280-98147-4	B39PR7	Water	06/08/17 11:13	06/09/17 09:00
280-98147-5	B3B6T2	Water	06/08/17 12:09	06/09/17 09:00
280-98147-6	B3B6R7	Water	06/08/17 12:09	06/09/17 09:00
280-98147-7	B39RD6	Water	06/08/17 12:27	06/09/17 09:00
280-98147-8	B39WK6	Water	06/08/17 12:27	06/09/17 09:00
280-98147-9	B39R61	Water	06/08/17 09:25	06/09/17 09:00
280-98147-10	B39R64	Water	06/08/17 09:25	06/09/17 09:00
280-98147-11	B39R52	Water	06/08/17 09:15	06/09/17 09:00
280-98147-12	B39R48	Water	06/08/17 09:15	06/09/17 09:00
280-98147-13	B39R73	Water	06/08/17 10:36	06/09/17 09:00
280-98147-14	B39R76	Water	06/08/17 10:36	06/09/17 09:00
280-98147-15	B39R40	Water	06/08/17 09:44	06/09/17 09:00
280-98147-16	B39R36	Water	06/08/17 09:44	06/09/17 09:00
280-98147-17	B39PY0	Water	06/08/17 08:50	06/09/17 09:00
280-98147-18	B39PY4	Water	06/08/17 08:50	06/09/17 09:00
280-98147-19	B39R43	Water	06/08/17 09:04	06/09/17 09:00
280-98147-20	B39R46	Water	06/08/17 09:04	06/09/17 09:00

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Method: 6010C - Metals (ICP)

Client Sample ID: B39XT3 — **Lab Sample ID: 280-98147-2**
Date Collected: 06/08/17 13:02 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.2	U	20.0	5.2	ug/L		06/22/17 14:20	06/23/17 01:49	1
Arsenic	6.2	B	15.0	4.4	ug/L		06/22/17 14:20	06/24/17 01:32	1
Barium	32.5		10.0	0.82	ug/L		06/22/17 14:20	06/23/17 01:49	1
Cadmium	0.45	U	5.0	0.45	ug/L		06/22/17 14:20	06/23/17 01:49	1
Calcium	30100		200	34.5	ug/L		06/22/17 14:20	06/23/17 01:49	1
Chromium	0.72	B	10.0	0.66	ug/L		06/22/17 14:20	06/23/17 01:49	1
Cobalt	1.2	U	10.0	1.2	ug/L		06/22/17 14:20	06/23/17 01:49	1
Copper	4.2	U	15.0	4.2	ug/L		06/22/17 14:20	06/23/17 01:49	1
Iron	24.7	B	100	22.0	ug/L		06/22/17 14:20	06/23/17 01:49	1
Magnesium	9720		200	10.7	ug/L		06/22/17 14:20	06/23/17 01:49	1
Manganese	4.7	B C	10.0	0.26	ug/L		06/22/17 14:20	06/23/17 01:49	1
Nickel	2.6	U	40.0	2.6	ug/L		06/22/17 14:20	06/23/17 01:49	1
Potassium	3910	C	3000	237	ug/L		06/22/17 14:20	06/23/17 01:49	1
Silver	0.93	U	10.0	0.93	ug/L		06/22/17 14:20	06/23/17 01:49	1
Sodium	17000		1000	117	ug/L		06/22/17 14:20	06/23/17 01:49	1
Vanadium	29.4		10.0	1.1	ug/L		06/22/17 14:20	06/23/17 01:49	1
Zinc	4.5	U	20.0	4.5	ug/L		06/22/17 14:20	06/23/17 01:49	1

Client Sample ID: B3B6R7 — **Lab Sample ID: 280-98147-6**
Date Collected: 06/08/17 12:09 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11.4	B	100	4.4	ug/L		06/22/17 14:20	06/23/17 02:04	1
Calcium	49100		200	34.5	ug/L		06/22/17 14:20	06/23/17 02:04	1
Iron	22.0	U	100	22.0	ug/L		06/22/17 14:20	06/23/17 02:04	1
Magnesium	16200		200	10.7	ug/L		06/22/17 14:20	06/23/17 02:04	1
Potassium	6390	C	3000	237	ug/L		06/22/17 14:20	06/23/17 02:04	1
Sodium	30900		1000	117	ug/L		06/22/17 14:20	06/23/17 02:04	1
Vanadium	7.8	B	10.0	1.1	ug/L		06/22/17 14:20	06/23/17 02:04	1

Client Sample ID: B39WK6 — **Lab Sample ID: 280-98147-8**
Date Collected: 06/08/17 12:27 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11.1	B	100	4.4	ug/L		06/22/17 14:20	06/23/17 02:07	1
Calcium	43100		200	34.5	ug/L		06/22/17 14:20	06/23/17 02:07	1
Iron	22.0	U	100	22.0	ug/L		06/22/17 14:20	06/23/17 02:07	1
Magnesium	15500		200	10.7	ug/L		06/22/17 14:20	06/23/17 02:07	1
Potassium	6350	C	3000	237	ug/L		06/22/17 14:20	06/23/17 02:07	1
Sodium	33700		1000	117	ug/L		06/22/17 14:20	06/23/17 02:07	1
Vanadium	15.4		10.0	1.1	ug/L		06/22/17 14:20	06/23/17 02:07	1

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B39P11 — **Lab Sample ID: 280-98147-1**
Date Collected: 06/08/17 13:02 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.2	U	20.0	5.2	ug/L		06/14/17 12:30	06/15/17 11:59	1
Arsenic	6.2	B	15.0	4.4	ug/L		06/14/17 12:30	06/15/17 11:59	1

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

Client Sample ID: B39P11 — **Lab Sample ID: 280-98147-1**
Date Collected: 06/08/17 13:02 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	32.3		10.0	0.82	ug/L		06/14/17 12:30	06/15/17 11:59	1
Cadmium	0.45	U	5.0	0.45	ug/L		06/14/17 12:30	06/15/17 11:59	1
Calcium	29200		200	34.5	ug/L		06/14/17 12:30	06/15/17 11:59	1
Chromium	2.0	B	10.0	0.66	ug/L		06/14/17 12:30	06/15/17 11:59	1
Cobalt	1.2	U	10.0	1.2	ug/L		06/14/17 12:30	06/15/17 11:59	1
Copper	4.2	U	15.0	4.2	ug/L		06/14/17 12:30	06/15/17 11:59	1
Iron	22.0	U	100	22.0	ug/L		06/14/17 12:30	06/15/17 11:59	1
Magnesium	9830		200	10.7	ug/L		06/14/17 12:30	06/15/17 11:59	1
Manganese	0.65	B	10.0	0.26	ug/L		06/14/17 12:30	06/15/17 11:59	1
Nickel	2.6	U	40.0	2.6	ug/L		06/14/17 12:30	06/15/17 11:59	1
Potassium	2840	B	3000	237	ug/L		06/14/17 12:30	06/16/17 14:21	1
Silver	0.93	U	10.0	0.93	ug/L		06/14/17 12:30	06/15/17 11:59	1
Sodium	17000		1000	117	ug/L		06/14/17 12:30	06/15/17 11:59	1
Vanadium	29.5		10.0	1.1	ug/L		06/14/17 12:30	06/15/17 11:59	1
Zinc	4.5	U	20.0	4.5	ug/L		06/14/17 12:30	06/15/17 11:59	1

Client Sample ID: B3B6T2 — **Lab Sample ID: 280-98147-5**
Date Collected: 06/08/17 12:09 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	17.2	B	100	4.4	ug/L		06/14/17 12:30	06/15/17 12:14	1
Calcium	50100		200	34.5	ug/L		06/14/17 12:30	06/15/17 12:14	1
Iron	22.0	U	100	22.0	ug/L		06/14/17 12:30	06/15/17 12:14	1
Magnesium	16800		200	10.7	ug/L		06/14/17 12:30	06/15/17 12:14	1
Potassium	5330		3000	237	ug/L		06/14/17 12:30	06/16/17 14:30	1
Sodium	29100		1000	117	ug/L		06/14/17 12:30	06/15/17 12:14	1
Vanadium	9.2	B	10.0	1.1	ug/L		06/14/17 12:30	06/15/17 12:14	1

Client Sample ID: B39RD6 — **Lab Sample ID: 280-98147-7**
Date Collected: 06/08/17 12:27 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15.5	B	100	4.4	ug/L		06/14/17 12:30	06/15/17 12:17	1
Calcium	40300		200	34.5	ug/L		06/14/17 12:30	06/15/17 12:17	1
Iron	22.0	U	100	22.0	ug/L		06/14/17 12:30	06/15/17 12:17	1
Magnesium	15000		200	10.7	ug/L		06/14/17 12:30	06/15/17 12:17	1
Potassium	5060		3000	237	ug/L		06/14/17 12:30	06/16/17 14:33	1
Sodium	29000		1000	117	ug/L		06/14/17 12:30	06/15/17 12:17	1
Vanadium	15.1		10.0	1.1	ug/L		06/14/17 12:30	06/15/17 12:17	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B39PR3 — **Lab Sample ID: 280-98147-3**
Date Collected: 06/08/17 11:13 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	26.8		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:11	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3B6R7 — **Lab Sample ID: 280-98147-6**
Date Collected: 06/08/17 12:09 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.0	U	50.0	13.0	ug/L		06/14/17 12:30	06/15/17 13:15	1
Antimony	0.40	U	2.0	0.40	ug/L		06/14/17 12:30	06/15/17 13:15	1
Arsenic	**3.4**	**B**	5.0	0.33	ug/L		06/14/17 12:30	06/15/17 13:15	1
Barium	**43.6**		1.0	0.29	ug/L		06/14/17 12:30	06/15/17 13:15	1
Beryllium	0.080	U	1.0	0.080	ug/L		06/14/17 12:30	06/15/17 13:15	1
Cadmium	0.27	U	1.0	0.27	ug/L		06/14/17 12:30	06/15/17 13:15	1
Chromium	**8.3**		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:15	1
Cobalt	0.054	U	1.0	0.054	ug/L		06/14/17 12:30	06/15/17 13:15	1
Copper	**1.9**	**B**	2.0	0.56	ug/L		06/14/17 12:30	06/15/17 13:15	1
Lead	0.18	U	1.0	0.18	ug/L		06/14/17 12:30	06/15/17 13:15	1
Manganese	**0.34**	**B**	1.0	0.31	ug/L		06/14/17 12:30	06/15/17 13:15	1
Molybdenum	**3.1**		2.0	0.14	ug/L		06/14/17 12:30	06/15/17 13:15	1
Nickel	0.30	U	2.0	0.30	ug/L		06/14/17 12:30	06/15/17 13:15	1
Selenium	**0.79**	**B**	5.0	0.70	ug/L		06/14/17 12:30	06/15/17 13:15	1
Silver	0.033	U	5.0	0.033	ug/L		06/14/17 12:30	06/15/17 13:15	1
Strontium	**339**		10.0	0.30	ug/L		06/14/17 12:30	06/15/17 13:15	1
Thallium	0.050	U	1.0	0.050	ug/L		06/14/17 12:30	06/15/17 13:15	1
Thorium	1.2	U	5.0	1.2	ug/L		06/14/17 12:30	06/15/17 13:15	1
Tin	0.77	U	10.0	0.77	ug/L		06/14/17 12:30	06/15/17 13:15	1
Uranium	**3.7**		1.0	0.050	ug/L		06/14/17 12:30	06/15/17 13:15	1
Zinc	**7.9**	**B**	10.0	2.0	ug/L		06/14/17 12:30	06/15/17 13:15	1

Client Sample ID: B39WK6 — **Lab Sample ID: 280-98147-8**
Date Collected: 06/08/17 12:27 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**11.1**		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:27	1

Client Sample ID: B39R61 — **Lab Sample ID: 280-98147-9**
Date Collected: 06/08/17 09:25 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**30.9**		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:30	1

Client Sample ID: B39R48 — **Lab Sample ID: 280-98147-12**
Date Collected: 06/08/17 09:15 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**12.9**		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:34	1

Client Sample ID: B39R73 — **Lab Sample ID: 280-98147-13**
Date Collected: 06/08/17 10:36 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**2.1**		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:38	1

Client Sample ID: B39R36 — **Lab Sample ID: 280-98147-16**
Date Collected: 06/08/17 09:44 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.82**	**B**	2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:42	1

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

Client Sample ID: B39R36 — **Lab Sample ID: 280-98147-16**
Date Collected: 06/08/17 09:44 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.73	B	1.0	0.050	ug/L		06/14/17 12:30	06/15/17 13:42	1

Client Sample ID: B39PY0 — **Lab Sample ID: 280-98147-17**
Date Collected: 06/08/17 08:50 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	4.7		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 13:57	1

Client Sample ID: B39R43 — **Lab Sample ID: 280-98147-19**
Date Collected: 06/08/17 09:04 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	7.6		2.0	0.50	ug/L		06/14/17 12:30	06/15/17 14:01	1

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

Client Sample ID: B39PR7 — **Lab Sample ID: 280-98147-4**
Date Collected: 06/08/17 11:13 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	26.2		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:12	1

Client Sample ID: B3B6T2 — **Lab Sample ID: 280-98147-5**
Date Collected: 06/08/17 12:09 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.0	U	50.0	13.0	ug/L		06/22/17 14:20	06/23/17 02:15	1
Antimony	0.40	U	2.0	0.40	ug/L		06/22/17 14:20	06/23/17 02:15	1
Arsenic	3.3	B	5.0	0.33	ug/L		06/22/17 14:20	06/23/17 02:15	1
Barium	45.3		1.0	0.29	ug/L		06/22/17 14:20	06/23/17 02:15	1
Beryllium	0.080	U	1.0	0.080	ug/L		06/22/17 14:20	06/23/17 02:15	1
Cadmium	0.27	U	1.0	0.27	ug/L		06/22/17 14:20	06/23/17 02:15	1
Chromium	7.8		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:15	1
Cobalt	0.054	U	1.0	0.054	ug/L		06/22/17 14:20	06/23/17 02:15	1
Copper	0.56	U	2.0	0.56	ug/L		06/22/17 14:20	06/23/17 02:15	1
Lead	0.18	U	1.0	0.18	ug/L		06/22/17 14:20	06/23/17 02:15	1
Manganese	0.31	U	1.0	0.31	ug/L		06/22/17 14:20	06/23/17 02:15	1
Molybdenum	3.3		2.0	0.14	ug/L		06/22/17 14:20	06/23/17 02:15	1
Nickel	0.30	U	2.0	0.30	ug/L		06/22/17 14:20	06/23/17 02:15	1
Selenium	1.1	B	5.0	0.70	ug/L		06/22/17 14:20	06/23/17 02:15	1
Silver	0.033	U	5.0	0.033	ug/L		06/22/17 14:20	06/23/17 02:15	1
Strontium	341		10.0	0.30	ug/L		06/22/17 14:20	06/23/17 02:15	1
Thallium	0.050	U	1.0	0.050	ug/L		06/22/17 14:20	06/23/17 02:15	1
Thorium	1.2	U	5.0	1.2	ug/L		06/22/17 14:20	06/23/17 02:15	1
Tin	0.77	U	10.0	0.77	ug/L		06/22/17 14:20	06/23/17 02:15	1
Uranium	3.5		1.0	0.050	ug/L		06/22/17 14:20	06/23/17 02:15	1
Zinc	3.1	B	10.0	2.0	ug/L		06/22/17 14:20	06/23/17 02:15	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

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

Client Sample ID: B39RD6 — **Lab Sample ID: 280-98147-7**
Date Collected: 06/08/17 12:27 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	10.9		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:34	1

Client Sample ID: B39R64 — **Lab Sample ID: 280-98147-10**
Date Collected: 06/08/17 09:25 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	32.2		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:38	1

Client Sample ID: B39R52 — **Lab Sample ID: 280-98147-11**
Date Collected: 06/08/17 09:15 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	12.9		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:53	1

Client Sample ID: B39R76 — **Lab Sample ID: 280-98147-14**
Date Collected: 06/08/17 10:36 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.0		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:56	1

Client Sample ID: B39R40 — **Lab Sample ID: 280-98147-15**
Date Collected: 06/08/17 09:44 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.74	B	2.0	0.50	ug/L		06/22/17 14:20	06/23/17 03:00	1
Uranium	0.74	B	1.0	0.050	ug/L		06/22/17 14:20	06/23/17 03:00	1

Client Sample ID: B39PY4 — **Lab Sample ID: 280-98147-18**
Date Collected: 06/08/17 08:50 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.1		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 03:04	1

Client Sample ID: B39R46 — **Lab Sample ID: 280-98147-20**
Date Collected: 06/08/17 09:04 — **Matrix: Water**
Date Received: 06/09/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	7.4		2.0	0.50	ug/L		06/22/17 14:20	06/23/17 03:08	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-377213/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378511 — **Prep Batch: 377213**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.2	U	20.0	5.2	ug/L		06/22/17 14:20	06/23/17 01:19	1
Barium	0.82	U	10.0	0.82	ug/L		06/22/17 14:20	06/23/17 01:19	1
Boron	4.4	U	100	4.4	ug/L		06/22/17 14:20	06/23/17 01:19	1
Cadmium	0.45	U	5.0	0.45	ug/L		06/22/17 14:20	06/23/17 01:19	1
Calcium	41.97	B	200	34.5	ug/L		06/22/17 14:20	06/23/17 01:19	1
Chromium	0.66	U	10.0	0.66	ug/L		06/22/17 14:20	06/23/17 01:19	1
Cobalt	1.2	U	10.0	1.2	ug/L		06/22/17 14:20	06/23/17 01:19	1
Copper	4.2	U	15.0	4.2	ug/L		06/22/17 14:20	06/23/17 01:19	1
Iron	22.0	U	100	22.0	ug/L		06/22/17 14:20	06/23/17 01:19	1
Magnesium	10.7	U	200	10.7	ug/L		06/22/17 14:20	06/23/17 01:19	1
Manganese	0.477	B	10.0	0.26	ug/L		06/22/17 14:20	06/23/17 01:19	1
Nickel	2.6	U	40.0	2.6	ug/L		06/22/17 14:20	06/23/17 01:19	1
Potassium	512.9	B	3000	237	ug/L		06/22/17 14:20	06/23/17 01:19	1
Silver	0.93	U	10.0	0.93	ug/L		06/22/17 14:20	06/23/17 01:19	1
Sodium	331.2	B	1000	117	ug/L		06/22/17 14:20	06/23/17 01:19	1
Vanadium	1.1	U	10.0	1.1	ug/L		06/22/17 14:20	06/23/17 01:19	1
Zinc	4.5	U	20.0	4.5	ug/L		06/22/17 14:20	06/23/17 01:19	1

Lab Sample ID: MB 280-377213/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378671 — **Prep Batch: 377213**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4	U	15.0	4.4	ug/L		06/22/17 14:20	06/24/17 01:26	1

Lab Sample ID: LCS 280-377213/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378511 — **Prep Batch: 377213**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	498.9		ug/L		100	80 - 120
Barium	2000	2007		ug/L		100	80 - 120
Boron	1000	972.2		ug/L		97	80 - 120
Cadmium	100	98.04		ug/L		98	80 - 120
Calcium	50000	49320		ug/L		99	80 - 120
Chromium	200	198.2		ug/L		99	80 - 120
Cobalt	500	486.2		ug/L		97	80 - 120
Copper	250	239.6		ug/L		96	80 - 120
Iron	1000	1006		ug/L		101	80 - 120
Magnesium	50000	49360		ug/L		99	80 - 120
Manganese	500	497.3		ug/L		99	80 - 120
Nickel	500	473.2		ug/L		95	80 - 120
Potassium	50000	52010		ug/L		104	80 - 120
Silver	50.0	51.20		ug/L		102	80 - 120
Sodium	50000	53680		ug/L		107	80 - 120
Vanadium	500	497.5		ug/L		100	80 - 120
Zinc	500	492.9		ug/L		99	80 - 120

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

Lab Sample ID: LCS 280-377213/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378671 — **Prep Batch: 377213**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1009		ug/L		101	80 - 120

Lab Sample ID: 280-98147-2 MS — **Client Sample ID: B39XT3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378511 — **Prep Batch: 377213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	5.2	U	500	517.5		ug/L		103	75 - 125
Barium	32.5		2000	2081		ug/L		102	75 - 125
Boron	26.6	B	1000	1043		ug/L		102	75 - 125
Cadmium	0.45	U	100	100.9		ug/L		101	75 - 125
Calcium	30100		50000	81930		ug/L		104	75 - 125
Chromium	0.72	B	200	206.5		ug/L		103	75 - 125
Cobalt	1.2	U	500	500.0		ug/L		100	75 - 125
Copper	4.2	U	250	249.7		ug/L		100	75 - 125
Iron	24.7	B	1000	1077		ug/L		105	75 - 125
Magnesium	9720		50000	61570		ug/L		104	75 - 125
Manganese	4.7	B C	500	516.4		ug/L		102	75 - 125
Nickel	2.6	U	500	485.6		ug/L		97	75 - 125
Potassium	3910	C	50000	57340		ug/L		107	75 - 125
Silver	0.93	U	50.0	53.48		ug/L		107	75 - 125
Sodium	17000		50000	74310		ug/L		115	75 - 125
Vanadium	29.4		500	544.8		ug/L		103	75 - 125
Zinc	4.5	U	500	508.1		ug/L		102	75 - 125

Lab Sample ID: 280-98147-2 MS — **Client Sample ID: B39XT3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378671 — **Prep Batch: 377213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.2	B	1000	1047		ug/L		104	75 - 125

Lab Sample ID: 280-98147-2 MSD — **Client Sample ID: B39XT3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378511 — **Prep Batch: 377213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	5.2	U	500	508.2		ug/L		102	75 - 125	2	20
Barium	32.5		2000	2037		ug/L		100	75 - 125	2	20
Boron	26.6	B	1000	1022		ug/L		100	75 - 125	2	20
Cadmium	0.45	U	100	99.53		ug/L		100	75 - 125	1	20
Calcium	30100		50000	78090		ug/L		96	75 - 125	5	20
Chromium	0.72	B	200	203.1		ug/L		101	75 - 125	2	20
Cobalt	1.2	U	500	492.9		ug/L		99	75 - 125	1	20
Copper	4.2	U	250	245.4		ug/L		98	75 - 125	2	20
Iron	24.7	B	1000	1028		ug/L		100	75 - 125	5	20
Magnesium	9720		50000	59790		ug/L		100	75 - 125	3	20
Manganese	4.7	B C	500	501.8		ug/L		99	75 - 125	3	20
Nickel	2.6	U	500	477.3		ug/L		95	75 - 125	2	20

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

Lab Sample ID: 280-98147-2 MSD — **Client Sample ID: B39XT3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378511 — **Prep Batch: 377213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	3910	C	50000	56140		ug/L		104	75 - 125	2	20
Silver	0.93	U	50.0	52.28		ug/L		105	75 - 125	2	20
Sodium	17000		50000	71470		ug/L		109	75 - 125	4	20
Vanadium	29.4		500	533.1		ug/L		101	75 - 125	2	20
Zinc	4.5	U	500	497.5		ug/L		99	75 - 125	2	20

Lab Sample ID: 280-98147-2 MSD — **Client Sample ID: B39XT3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 378671 — **Prep Batch: 377213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.2	B	1000	1011		ug/L		100	75 - 125	4	20

Lab Sample ID: MB 280-377198/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 377565 — **Prep Batch: 377198**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.2	U	20.0	5.2	ug/L		06/14/17 12:30	06/15/17 11:53	1
Arsenic	4.4	U	15.0	4.4	ug/L		06/14/17 12:30	06/15/17 11:53	1
Barium	0.82	U	10.0	0.82	ug/L		06/14/17 12:30	06/15/17 11:53	1
Boron	4.4	U	100	4.4	ug/L		06/14/17 12:30	06/15/17 11:53	1
Cadmium	0.45	U	5.0	0.45	ug/L		06/14/17 12:30	06/15/17 11:53	1
Calcium	34.5	U	200	34.5	ug/L		06/14/17 12:30	06/15/17 11:53	1
Chromium	0.66	U	10.0	0.66	ug/L		06/14/17 12:30	06/15/17 11:53	1
Cobalt	1.2	U	10.0	1.2	ug/L		06/14/17 12:30	06/15/17 11:53	1
Copper	4.2	U	15.0	4.2	ug/L		06/14/17 12:30	06/15/17 11:53	1
Iron	22.0	U	100	22.0	ug/L		06/14/17 12:30	06/15/17 11:53	1
Magnesium	10.7	U	200	10.7	ug/L		06/14/17 12:30	06/15/17 11:53	1
Manganese	0.26	U	10.0	0.26	ug/L		06/14/17 12:30	06/15/17 11:53	1
Nickel	2.6	U	40.0	2.6	ug/L		06/14/17 12:30	06/15/17 11:53	1
Silver	0.93	U	10.0	0.93	ug/L		06/14/17 12:30	06/15/17 11:53	1
Sodium	117	U	1000	117	ug/L		06/14/17 12:30	06/15/17 11:53	1
Vanadium	1.1	U	10.0	1.1	ug/L		06/14/17 12:30	06/15/17 11:53	1
Zinc	4.5	U	20.0	4.5	ug/L		06/14/17 12:30	06/15/17 11:53	1

Lab Sample ID: MB 280-377198/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 377755 — **Prep Batch: 377198**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	237	U	3000	237	ug/L		06/14/17 12:30	06/16/17 14:15	1

Lab Sample ID: LCS 280-377198/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 377565 — **Prep Batch: 377198**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	555.9		ug/L		111	80 - 120

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

Lab Sample ID: LCS 280-377198/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 377565 — **Prep Batch: 377198**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1070		ug/L		107	80 - 120
Barium	2000	2097		ug/L		105	80 - 120
Boron	1000	1058		ug/L		106	80 - 120
Cadmium	100	103.9		ug/L		104	80 - 120
Calcium	50000	51180		ug/L		102	80 - 120
Chromium	200	210.3		ug/L		105	80 - 120
Cobalt	500	506.5		ug/L		101	80 - 120
Copper	250	256.5		ug/L		103	80 - 120
Iron	1000	1036		ug/L		104	80 - 120
Magnesium	50000	51730		ug/L		103	80 - 120
Manganese	500	522.9		ug/L		105	80 - 120
Nickel	500	501.8		ug/L		100	80 - 120
Silver	50.0	53.44		ug/L		107	80 - 120
Sodium	50000	52520		ug/L		105	80 - 120
Vanadium	500	523.2		ug/L		105	80 - 120
Zinc	500	513.4		ug/L		103	80 - 120

Lab Sample ID: LCS 280-377198/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 377755 — **Prep Batch: 377198**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	50000	50750		ug/L		102	80 - 120

Lab Sample ID: 280-98147-1 MS — **Client Sample ID: B39P11**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 377565 — **Prep Batch: 377198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	5.2	U	500	529.1		ug/L		106	75 - 125
Arsenic	6.2	B	1000	1027		ug/L		102	75 - 125
Barium	32.3		2000	2025		ug/L		100	75 - 125
Boron	34.0	B	1000	1045		ug/L		101	75 - 125
Cadmium	0.45	U	100	98.47		ug/L		98	75 - 125
Calcium	29200		50000	77070		ug/L		96	75 - 125
Chromium	2.0	B	200	201.1		ug/L		100	75 - 125
Cobalt	1.2	U	500	479.4		ug/L		96	75 - 125
Copper	4.2	U	250	244.3		ug/L		98	75 - 125
Iron	22.0	U	1000	979.0		ug/L		98	75 - 125
Magnesium	9830		50000	58680		ug/L		98	75 - 125
Manganese	0.65	B	500	494.3		ug/L		99	75 - 125
Nickel	2.6	U	500	474.4		ug/L		95	75 - 125
Silver	0.93	U	50.0	51.14		ug/L		102	75 - 125
Sodium	17000		50000	66720		ug/L		100	75 - 125
Vanadium	29.5		500	525.0		ug/L		99	75 - 125
Zinc	4.5	U	500	488.4		ug/L		98	75 - 125

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

Lab Sample ID: 280-98147-1 MS — **Client Sample ID: B39P11**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 377755 — **Prep Batch: 377198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Potassium	2840	B	50000	53890		ug/L		102	75 - 125		

Lab Sample ID: 280-98147-1 MSD — **Client Sample ID: B39P11**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 377565 — **Prep Batch: 377198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	5.2	U	500	535.2		ug/L		107	75 - 125	1	20
Arsenic	6.2	B	1000	1038		ug/L		103	75 - 125	1	20
Barium	32.3		2000	2051		ug/L		101	75 - 125	1	20
Boron	34.0	B	1000	1065		ug/L		103	75 - 125	2	20
Cadmium	0.45	U	100	99.69		ug/L		100	75 - 125	1	20
Calcium	29200		50000	79090		ug/L		100	75 - 125	3	20
Chromium	2.0	B	200	203.8		ug/L		101	75 - 125	1	20
Cobalt	1.2	U	500	486.5		ug/L		97	75 - 125	1	20
Copper	4.2	U	250	247.8		ug/L		99	75 - 125	1	20
Iron	22.0	U	1000	1000		ug/L		100	75 - 125	2	20
Magnesium	9830		50000	59600		ug/L		100	75 - 125	2	20
Manganese	0.65	B	500	500.7		ug/L		100	75 - 125	1	20
Nickel	2.6	U	500	479.9		ug/L		96	75 - 125	1	20
Silver	0.93	U	50.0	51.68		ug/L		103	75 - 125	1	20
Sodium	17000		50000	68140		ug/L		102	75 - 125	2	20
Vanadium	29.5		500	533.1		ug/L		101	75 - 125	2	20
Zinc	4.5	U	500	490.9		ug/L		98	75 - 125	1	20

Lab Sample ID: 280-98147-1 MSD — **Client Sample ID: B39P11**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 377755 — **Prep Batch: 377198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	2840	B	50000	53170		ug/L		101	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-377214/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.0	U	50.0	13.0	ug/L		06/14/17 12:30	06/15/17 12:33	1
Antimony	0.40	U	2.0	0.40	ug/L		06/14/17 12:30	06/15/17 12:33	1
Arsenic	0.33	U	5.0	0.33	ug/L		06/14/17 12:30	06/15/17 12:33	1
Barium	0.29	U	1.0	0.29	ug/L		06/14/17 12:30	06/15/17 12:33	1
Beryllium	0.080	U	1.0	0.080	ug/L		06/14/17 12:30	06/15/17 12:33	1
Cadmium	0.27	U	1.0	0.27	ug/L		06/14/17 12:30	06/15/17 12:33	1
Chromium	0.50	U	2.0	0.50	ug/L		06/14/17 12:30	06/15/17 12:33	1
Cobalt	0.054	U	1.0	0.054	ug/L		06/14/17 12:30	06/15/17 12:33	1
Copper	0.56	U	2.0	0.56	ug/L		06/14/17 12:30	06/15/17 12:33	1

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

Lab Sample ID: MB 280-377214/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.18	U	1.0	0.18	ug/L		06/14/17 12:30	06/15/17 12:33	1
Manganese	0.31	U	1.0	0.31	ug/L		06/14/17 12:30	06/15/17 12:33	1
Molybdenum	0.14	U	2.0	0.14	ug/L		06/14/17 12:30	06/15/17 12:33	1
Nickel	0.30	U	2.0	0.30	ug/L		06/14/17 12:30	06/15/17 12:33	1
Selenium	0.70	U	5.0	0.70	ug/L		06/14/17 12:30	06/15/17 12:33	1
Silver	0.033	U	5.0	0.033	ug/L		06/14/17 12:30	06/15/17 12:33	1
Strontium	0.30	U	10.0	0.30	ug/L		06/14/17 12:30	06/15/17 12:33	1
Thallium	0.050	U	1.0	0.050	ug/L		06/14/17 12:30	06/15/17 12:33	1
Thorium	1.2	U	5.0	1.2	ug/L		06/14/17 12:30	06/15/17 12:33	1
Tin	0.77	U	10.0	0.77	ug/L		06/14/17 12:30	06/15/17 12:33	1
Uranium	0.050	U	1.0	0.050	ug/L		06/14/17 12:30	06/15/17 12:33	1
Zinc	2.0	U	10.0	2.0	ug/L		06/14/17 12:30	06/15/17 12:33	1

Lab Sample ID: LCS 280-377214/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	400	423.0		ug/L		106	80 - 120
Antimony	40.0	37.71		ug/L		94	80 - 120
Arsenic	40.0	37.74		ug/L		94	80 - 120
Barium	40.0	41.87		ug/L		105	80 - 120
Beryllium	40.0	38.02		ug/L		95	80 - 120
Cadmium	40.0	41.76		ug/L		104	80 - 120
Chromium	40.0	40.92		ug/L		102	80 - 120
Cobalt	40.0	42.62		ug/L		107	80 - 120
Copper	40.0	41.74		ug/L		104	80 - 120
Lead	40.0	40.66		ug/L		102	80 - 120
Manganese	40.0	45.44		ug/L		114	80 - 120
Molybdenum	40.0	41.07		ug/L		103	80 - 120
Nickel	40.0	43.09		ug/L		108	80 - 120
Selenium	40.0	37.68		ug/L		94	80 - 120
Silver	40.0	41.84		ug/L		105	80 - 120
Strontium	40.0	38.80		ug/L		97	80 - 120
Thallium	40.0	39.75		ug/L		99	80 - 120
Thorium	40.0	40.33		ug/L		101	80 - 120
Tin	40.0	39.60		ug/L		99	80 - 120
Uranium	40.0	41.64		ug/L		104	80 - 120
Zinc	40.0	41.67		ug/L		104	80 - 120

Lab Sample ID: 280-98147-6 MS — **Client Sample ID: B3B6R7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	13.0	U	400	400.7		ug/L		100	75 - 125
Antimony	0.40	U	40.0	39.31		ug/L		98	75 - 125
Arsenic	3.4	B	40.0	40.27		ug/L		92	75 - 125
Barium	43.6		40.0	84.43		ug/L		102	75 - 125

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

Lab Sample ID: 280-98147-6 MS — **Client Sample ID: B3B6R7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.080	U	40.0	39.18		ug/L		98	75 - 125
Cadmium	0.27	U	40.0	40.09		ug/L		100	75 - 125
Chromium	8.3		40.0	46.60		ug/L		96	75 - 125
Cobalt	0.054	U	40.0	40.47		ug/L		101	75 - 125
Copper	1.9	B	40.0	41.81		ug/L		100	75 - 125
Lead	0.18	U	40.0	40.31		ug/L		101	75 - 125
Manganese	0.34	B	40.0	40.74		ug/L		101	75 - 125
Molybdenum	3.1		40.0	43.11		ug/L		100	75 - 125
Nickel	0.30	U	40.0	41.75		ug/L		104	75 - 125
Selenium	0.79	B	40.0	38.53		ug/L		94	75 - 125
Silver	0.033	U	40.0	39.68		ug/L		99	75 - 125
Strontium	339		40.0	381.5	X	ug/L		106	75 - 125
Thallium	0.050	U	40.0	40.19		ug/L		100	75 - 125
Thorium	1.2	U	40.0	40.78		ug/L		102	75 - 125
Tin	0.77	U	40.0	39.42		ug/L		99	75 - 125
Uranium	3.7		40.0	45.29		ug/L		104	75 - 125
Zinc	7.9	B	40.0	48.28		ug/L		101	75 - 125

Lab Sample ID: 280-98147-6 MSD — **Client Sample ID: B3B6R7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 377572 — **Prep Batch: 377214**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	13.0	U	400	392.9		ug/L		98	75 - 125	2	20
Antimony	0.40	U	40.0	39.09		ug/L		98	75 - 125	1	20
Arsenic	3.4	B	40.0	40.99		ug/L		94	75 - 125	2	20
Barium	43.6		40.0	87.41		ug/L		109	75 - 125	3	20
Beryllium	0.080	U	40.0	39.03		ug/L		98	75 - 125	0	20
Cadmium	0.27	U	40.0	42.24		ug/L		106	75 - 125	5	20
Chromium	8.3		40.0	47.34		ug/L		98	75 - 125	2	20
Cobalt	0.054	U	40.0	39.73		ug/L		99	75 - 125	2	20
Copper	1.9	B	40.0	42.30		ug/L		101	75 - 125	1	20
Lead	0.18	U	40.0	40.28		ug/L		101	75 - 125	0	20
Manganese	0.34	B	40.0	41.84		ug/L		104	75 - 125	3	20
Molybdenum	3.1		40.0	44.58		ug/L		104	75 - 125	3	20
Nickel	0.30	U	40.0	42.47		ug/L		106	75 - 125	2	20
Selenium	0.79	B	40.0	39.11		ug/L		96	75 - 125	2	20
Silver	0.033	U	40.0	41.18		ug/L		103	75 - 125	4	20
Strontium	339		40.0	376.4	X	ug/L		93	75 - 125	1	20
Thallium	0.050	U	40.0	39.23		ug/L		98	75 - 125	2	20
Thorium	1.2	U	40.0	40.84		ug/L		102	75 - 125	0	20
Tin	0.77	U	40.0	39.46		ug/L		99	75 - 125	0	20
Uranium	3.7		40.0	44.91		ug/L		103	75 - 125	1	20
Zinc	7.9	B	40.0	44.89		ug/L		92	75 - 125	7	20

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

Lab Sample ID: MB 280-377199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 378514 — **Prep Batch: 377199**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.0	U	50.0	13.0	ug/L		06/22/17 14:20	06/23/17 02:04	1
Antimony	0.40	U	2.0	0.40	ug/L		06/22/17 14:20	06/23/17 02:04	1
Arsenic	0.33	U	5.0	0.33	ug/L		06/22/17 14:20	06/23/17 02:04	1
Barium	0.29	U	1.0	0.29	ug/L		06/22/17 14:20	06/23/17 02:04	1
Beryllium	0.080	U	1.0	0.080	ug/L		06/22/17 14:20	06/23/17 02:04	1
Cadmium	0.27	U	1.0	0.27	ug/L		06/22/17 14:20	06/23/17 02:04	1
Chromium	0.50	U	2.0	0.50	ug/L		06/22/17 14:20	06/23/17 02:04	1
Cobalt	0.054	U	1.0	0.054	ug/L		06/22/17 14:20	06/23/17 02:04	1
Copper	0.56	U	2.0	0.56	ug/L		06/22/17 14:20	06/23/17 02:04	1
Lead	0.18	U	1.0	0.18	ug/L		06/22/17 14:20	06/23/17 02:04	1
Manganese	0.31	U	1.0	0.31	ug/L		06/22/17 14:20	06/23/17 02:04	1
Molybdenum	0.14	U	2.0	0.14	ug/L		06/22/17 14:20	06/23/17 02:04	1
Nickel	0.30	U	2.0	0.30	ug/L		06/22/17 14:20	06/23/17 02:04	1
Selenium	0.70	U	5.0	0.70	ug/L		06/22/17 14:20	06/23/17 02:04	1
Silver	0.033	U	5.0	0.033	ug/L		06/22/17 14:20	06/23/17 02:04	1
Strontium	0.30	U	10.0	0.30	ug/L		06/22/17 14:20	06/23/17 02:04	1
Thallium	0.050	U	1.0	0.050	ug/L		06/22/17 14:20	06/23/17 02:04	1
Thorium	1.2	U	5.0	1.2	ug/L		06/22/17 14:20	06/23/17 02:04	1
Tin	0.77	U	10.0	0.77	ug/L		06/22/17 14:20	06/23/17 02:04	1
Uranium	0.050	U	1.0	0.050	ug/L		06/22/17 14:20	06/23/17 02:04	1
Zinc	2.0	U	10.0	2.0	ug/L		06/22/17 14:20	06/23/17 02:04	1

Lab Sample ID: LCS 280-377199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 378514 — **Prep Batch: 377199**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	400	399.5		ug/L		100	80 - 120
Antimony	40.0	37.73		ug/L		94	80 - 120
Arsenic	40.0	39.12		ug/L		98	80 - 120
Barium	40.0	39.51		ug/L		99	80 - 120
Beryllium	40.0	39.40		ug/L		99	80 - 120
Cadmium	40.0	39.36		ug/L		98	80 - 120
Chromium	40.0	40.85		ug/L		102	80 - 120
Cobalt	40.0	41.63		ug/L		104	80 - 120
Copper	40.0	41.31		ug/L		103	80 - 120
Lead	40.0	40.98		ug/L		102	80 - 120
Manganese	40.0	40.57		ug/L		101	80 - 120
Molybdenum	40.0	41.87		ug/L		105	80 - 120
Nickel	40.0	41.10		ug/L		103	80 - 120
Selenium	40.0	39.16		ug/L		98	80 - 120
Silver	40.0	40.73		ug/L		102	80 - 120
Strontium	40.0	39.41		ug/L		99	80 - 120
Thallium	40.0	39.62		ug/L		99	80 - 120
Thorium	40.0	39.30		ug/L		98	80 - 120
Tin	40.0	39.90		ug/L		100	80 - 120
Uranium	40.0	39.65		ug/L		99	80 - 120
Zinc	40.0	42.74		ug/L		107	80 - 120

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

Lab Sample ID: 280-98147-5 MS **Client Sample ID: B3B6T2**
Matrix: Water **Prep Type: Dissolved**
Analysis Batch: 378514 **Prep Batch: 377199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	13.0	U	400	386.9		ug/L		97	75 - 125
Antimony	0.40	U	40.0	38.69		ug/L		97	75 - 125
Arsenic	3.3	B	40.0	43.32		ug/L		100	75 - 125
Barium	45.3		40.0	87.25		ug/L		105	75 - 125
Beryllium	0.080	U	40.0	40.46		ug/L		101	75 - 125
Cadmium	0.27	U	40.0	40.24		ug/L		101	75 - 125
Chromium	7.8		40.0	48.43		ug/L		102	75 - 125
Cobalt	0.054	U	40.0	40.55		ug/L		101	75 - 125
Copper	0.56	U	40.0	39.91		ug/L		100	75 - 125
Lead	0.18	U	40.0	39.89		ug/L		100	75 - 125
Manganese	0.31	U	40.0	40.09		ug/L		100	75 - 125
Molybdenum	3.3		40.0	45.74		ug/L		106	75 - 125
Nickel	0.30	U	40.0	40.16		ug/L		100	75 - 125
Selenium	1.1	B	40.0	38.67		ug/L		94	75 - 125
Silver	0.033	U	40.0	39.80		ug/L		99	75 - 125
Strontium	341		40.0	395.4	X	ug/L		136	75 - 125
Thallium	0.050	U	40.0	39.00		ug/L		98	75 - 125
Thorium	1.2	U	40.0	39.10		ug/L		98	75 - 125
Tin	0.77	U	40.0	40.88		ug/L		102	75 - 125
Uranium	3.5		40.0	43.09		ug/L		99	75 - 125
Zinc	3.1	B	40.0	43.60		ug/L		101	75 - 125

Lab Sample ID: 280-98147-5 MSD **Client Sample ID: B3B6T2**
Matrix: Water **Prep Type: Dissolved**
Analysis Batch: 378514 **Prep Batch: 377199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	13.0	U	400	403.2		ug/L		101	75 - 125	4	20
Antimony	0.40	U	40.0	38.96		ug/L		97	75 - 125	1	20
Arsenic	3.3	B	40.0	43.90		ug/L		101	75 - 125	1	20
Barium	45.3		40.0	87.14		ug/L		104	75 - 125	0	20
Beryllium	0.080	U	40.0	42.59		ug/L		106	75 - 125	5	20
Cadmium	0.27	U	40.0	40.46		ug/L		101	75 - 125	1	20
Chromium	7.8		40.0	47.81		ug/L		100	75 - 125	1	20
Cobalt	0.054	U	40.0	40.32		ug/L		101	75 - 125	1	20
Copper	0.56	U	40.0	39.91		ug/L		100	75 - 125	0	20
Lead	0.18	U	40.0	39.46		ug/L		99	75 - 125	1	20
Manganese	0.31	U	40.0	39.12		ug/L		98	75 - 125	2	20
Molybdenum	3.3		40.0	45.73		ug/L		106	75 - 125	0	20
Nickel	0.30	U	40.0	40.31		ug/L		101	75 - 125	0	20
Selenium	1.1	B	40.0	39.50		ug/L		96	75 - 125	2	20
Silver	0.033	U	40.0	40.05		ug/L		100	75 - 125	1	20
Strontium	341		40.0	388.8	X	ug/L		119	75 - 125	2	20
Thallium	0.050	U	40.0	38.63		ug/L		97	75 - 125	1	20
Thorium	1.2	U	40.0	39.20		ug/L		98	75 - 125	0	20
Tin	0.77	U	40.0	40.61		ug/L		102	75 - 125	1	20
Uranium	3.5		40.0	42.75		ug/L		98	75 - 125	1	20
Zinc	3.1	B	40.0	43.92		ug/L		102	75 - 125	1	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Metals

Prep Batch: 377198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-1	B39P11	Dissolved	Water	3005A	
280-98147-5	B3B6T2	Dissolved	Water	3005A	
280-98147-7	B39RD6	Dissolved	Water	3005A	
MB 280-377198/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-377198/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-98147-1 MS	B39P11	Dissolved	Water	3005A	
280-98147-1 MSD	B39P11	Dissolved	Water	3005A	

Prep Batch: 377199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-4	B39PR7	Dissolved	Water	3005A	
280-98147-5	B3B6T2	Dissolved	Water	3005A	
280-98147-7	B39RD6	Dissolved	Water	3005A	
280-98147-10	B39R64	Dissolved	Water	3005A	
280-98147-11	B39R52	Dissolved	Water	3005A	
280-98147-14	B39R76	Dissolved	Water	3005A	
280-98147-15	B39R40	Dissolved	Water	3005A	
280-98147-18	B39PY4	Dissolved	Water	3005A	
280-98147-20	B39R46	Dissolved	Water	3005A	
MB 280-377199/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-377199/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-98147-5 MS	B3B6T2	Dissolved	Water	3005A	
280-98147-5 MSD	B3B6T2	Dissolved	Water	3005A	

Prep Batch: 377213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-2	B39XT3	Total/NA	Water	3010A	
280-98147-6	B3B6R7	Total/NA	Water	3010A	
280-98147-8	B39WK6	Total/NA	Water	3010A	
MB 280-377213/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-377213/2-A	Lab Control Sample	Total/NA	Water	3010A	
280-98147-2 MS	B39XT3	Total/NA	Water	3010A	
280-98147-2 MSD	B39XT3	Total/NA	Water	3010A	

Prep Batch: 377214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-3	B39PR3	Total/NA	Water	3020A	
280-98147-6	B3B6R7	Total/NA	Water	3020A	
280-98147-8	B39WK6	Total/NA	Water	3020A	
280-98147-9	B39R61	Total/NA	Water	3020A	
280-98147-12	B39R48	Total/NA	Water	3020A	
280-98147-13	B39R73	Total/NA	Water	3020A	
280-98147-16	B39R36	Total/NA	Water	3020A	
280-98147-17	B39PY0	Total/NA	Water	3020A	
280-98147-19	B39R43	Total/NA	Water	3020A	
MB 280-377214/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-377214/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-98147-6 MS	B3B6R7	Total/NA	Water	3020A	
280-98147-6 MSD	B3B6R7	Total/NA	Water	3020A	

Metals (Continued)

Analysis Batch: 377565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-1	B39P11	Dissolved	Water	6010C	377198
280-98147-5	B3B6T2	Dissolved	Water	6010C	377198
280-98147-7	B39RD6	Dissolved	Water	6010C	377198
MB 280-377198/1-A	Method Blank	Total Recoverable	Water	6010C	377198
LCS 280-377198/2-A	Lab Control Sample	Total Recoverable	Water	6010C	377198
280-98147-1 MS	B39P11	Dissolved	Water	6010C	377198
280-98147-1 MSD	B39P11	Dissolved	Water	6010C	377198

Analysis Batch: 377572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-3	B39PR3	Total/NA	Water	6020A	377214
280-98147-6	B3B6R7	Total/NA	Water	6020A	377214
280-98147-8	B39WK6	Total/NA	Water	6020A	377214
280-98147-9	B39R61	Total/NA	Water	6020A	377214
280-98147-12	B39R48	Total/NA	Water	6020A	377214
280-98147-13	B39R73	Total/NA	Water	6020A	377214
280-98147-16	B39R36	Total/NA	Water	6020A	377214
280-98147-17	B39PY0	Total/NA	Water	6020A	377214
280-98147-19	B39R43	Total/NA	Water	6020A	377214
MB 280-377214/1-A	Method Blank	Total/NA	Water	6020A	377214
LCS 280-377214/2-A	Lab Control Sample	Total/NA	Water	6020A	377214
280-98147-6 MS	B3B6R7	Total/NA	Water	6020A	377214
280-98147-6 MSD	B3B6R7	Total/NA	Water	6020A	377214

Analysis Batch: 377755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-1	B39P11	Dissolved	Water	6010C	377198
280-98147-5	B3B6T2	Dissolved	Water	6010C	377198
280-98147-7	B39RD6	Dissolved	Water	6010C	377198
MB 280-377198/1-A	Method Blank	Total Recoverable	Water	6010C	377198
LCS 280-377198/2-A	Lab Control Sample	Total Recoverable	Water	6010C	377198
280-98147-1 MS	B39P11	Dissolved	Water	6010C	377198
280-98147-1 MSD	B39P11	Dissolved	Water	6010C	377198

Analysis Batch: 378511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-2	B39XT3	Total/NA	Water	6010C	377213
280-98147-6	B3B6R7	Total/NA	Water	6010C	377213
280-98147-8	B39WK6	Total/NA	Water	6010C	377213
MB 280-377213/1-A	Method Blank	Total/NA	Water	6010C	377213
LCS 280-377213/2-A	Lab Control Sample	Total/NA	Water	6010C	377213
280-98147-2 MS	B39XT3	Total/NA	Water	6010C	377213
280-98147-2 MSD	B39XT3	Total/NA	Water	6010C	377213

Analysis Batch: 378514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-4	B39PR7	Dissolved	Water	6020A	377199
280-98147-5	B3B6T2	Dissolved	Water	6020A	377199
280-98147-7	B39RD6	Dissolved	Water	6020A	377199
280-98147-10	B39R64	Dissolved	Water	6020A	377199
280-98147-11	B39R52	Dissolved	Water	6020A	377199

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006 / S17-007

TestAmerica Job ID: 280-98147-1
SDG: DN0150

Metals (Continued)

Analysis Batch: 378514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-14	B39R76	Dissolved	Water	6020A	377199
280-98147-15	B39R40	Dissolved	Water	6020A	377199
280-98147-18	B39PY4	Dissolved	Water	6020A	377199
280-98147-20	B39R46	Dissolved	Water	6020A	377199
MB 280-377199/1-A	Method Blank	Total Recoverable	Water	6020A	377199
LCS 280-377199/2-A	Lab Control Sample	Total Recoverable	Water	6020A	377199
280-98147-5 MS	B3B6T2	Dissolved	Water	6020A	377199
280-98147-5 MSD	B3B6T2	Dissolved	Water	6020A	377199

Analysis Batch: 378671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-98147-2	B39XT3	Total/NA	Water	6010C	377213
MB 280-377213/1-A	Method Blank	Total/NA	Water	6010C	377213
LCS 280-377213/2-A	Lab Control Sample	Total/NA	Water	6010C	377213
280-98147-2 MS	B39XT3	Total/NA	Water	6010C	377213
280-98147-2 MSD	B39XT3	Total/NA	Water	6010C	377213