

November 10, 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Richland
2800 George Washington Way
Richland, WA 99352
Tel: (509)375-3131

TestAmerica Job ID: 300-1221-1
TestAmerica Sample Delivery Group: WC0500
Client Project/Site: CH2M Hill Chemical

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600
Mail Stop R3-50
Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:
11/10/2015 12:17:52 PM
Steven Campbell, Quality Assurance Assistant
steven.campbell@testamericainc.com

Designee for
Whitney Ritari, Project Manager I
(509)375-3131 ext164
whitney.ritari@testamericainc.com

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this package. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the attached signature.

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples. The sample/ sample duplicate RPD agreement is not applicable if one or both results are elss than five times the MDL.



LINKS

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Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Chain of Custody	5
Detection Summary	14
Client Sample Results	16
QC Sample Results	19
QC Association Summary	22
Lab Chronicle	23
Method Summary	27
Sample Summary	28
Receipt Checklists	29

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.
N	MS, MSD: Spike recovery is outside acceptance limits.
B	Estimated result. Result is less than the RL, but greater than MDL

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Job ID: 300-1221-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-1221-1**

Comments

No additional comments.

Receipt

The samples were received on 10/26/2015 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

HPLC/IC

Method(s) 300.0: The matrix spike (MS) recoveries for analytical batch 300-1655 were outside control limits for Orthophosphate as P. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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CH2M HILL Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S16-010-372**
Page 1 of 1

Collector MA White CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650	
SAF No. S16-010	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071	
Project Title SURY, OCTOBER 2015	Logbook No. HNF-N-506 76/97	Ice Chest No. N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	
Protocol SURV	Priority: 30 Days PRIORITY	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	Hold Time
*** 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		N/A	
		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B32PB1	N	W	10-26-15	0921	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B32PB3	Y	W	10-26-15	0901	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

November 10, 2015

300-1221 COC



#1221
WC0500

Relinquished By MA White CHPRC	Print <i>MA White</i>	Sign <i>MA White</i>	Date/Time OCT 26 2015 1052
Relinquished By F.M. Haliczars	Print <i>F.M. Haliczars</i>	Sign <i>F.M. Haliczars</i>	Date/Time OCT 26 2015 1500
Relinquished By		Received By J. Friesz, TANI	Date/Time OCT 26 2015 1500
Relinquished By		Received By	Date/Time
Relinquished By		Received By	Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Date/Time

Matrix *

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-010-304
Page 1 of 1

Collector	MA White CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, OCTOBER 2015	Logbook No.	HNF-N-506 76/91	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time	
*** 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		N/A		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B32N4	N	W	10-26-15	1042	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B32N46	Y	W	10-26-15	1042	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

November 10, 2015

#1221
W 6500

Relinquished By	MA White CHPRC	Print	Sign	Date/Time	Received By	F.M. Heinrichs	Print	Sign	Date/Time	Matrix *
Relinquished By	F.M. Heinrichs			OCT 26 2015 1052	Received By	J. Friesz, TARI			OCT 26 2015 1652	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By				OCT 26 2015 1500	Received By				OCT 26 2015 1500	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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CH2M HILL Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-010-374

Page 1 of 1

Collector MA White CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650	C.O.C. # S16-010-374
SAF No. S16-010	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071	
Project Title SURV, OCTOBER 2015	Logbook No. HNF-N-506 <u>76/21</u>	Ice Chest No. N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	
*** 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		N/A	

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B32PB7	N	W	10-26-15	1218	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B32PB9	Y	W	10-26-15	1218	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

November 10, 2015

#1221
W 60500

Relinquished By MA White Print <i>MA White</i> Sign	Date/Time OCT 26 2015 1330	Received By LD. Wall Print <i>LD. Wall</i> Sign	Date/Time OCT 26 2015 1330
Relinquished By CHPRC	Date/Time OCT 26 2015 1500	Received By J. Friesz, TARL	Date/Time OCT 26 2015 1500
Relinquished By	Date/Time	Received By	Date/Time

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)
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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-010-185
Page 1 of 1

Collector	MA White CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURY, OCTOBER 2015	Logbook No.	HNF-N-506 <u>76/91</u>	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURY	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			Hold Time		
			N/A		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B32PB0	N	W	10-26-15	0901	1x500-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	Cool <=6C

#1221
W0500

Relinquished By	MA White CHPRC	Print	Sign	Date/Time	Received By	F.M. Heitcrpc	Print	Sign	Date/Time	Matrix *
Relinquished By	<i>[Signature]</i>			OCT 26 2015 / 052	Received By	<i>[Signature]</i>			OCT 26 2015 / 052	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By	F.M. Heitcrpc			OCT 26 2015 / 1500	Received By	J. Bock, TARI			OCT 26 2015 / 1500	DS = Drum Solids DL = Drum Liquids T = Tissue WT = Wipe L = Liquid V = Vegetation X = Other
Relinquished By					Received By					
FINAL SAMPLE DISPOSITION					Disposal Method (e.g., Return to customer, per lab procedure, used in process)					
DISPOSITION					Disposed By					

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-010-615
Page 1 of 1

Collector	MA White CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, OCTOBER 2015	Logbook No.	HNF-N-506 76 / 91	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** 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		N/A			

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B32Y52	N	W	10-26-15	1218	1x500-ml P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	Cool <=6C

November 10, 2015

#1221
W C0500

Relinquished By	MA White CHPRC	Print [Signature]	Sign [Signature]	Date/Time	OCT 26 2015 1330	Received By	LD Wall CHPRC	Print [Signature]	Sign [Signature]	Date/Time	OCT 26 2015 1330	Matrix *
Relinquished By	LD Wall CHPRC	Print [Signature]	Sign [Signature]	Date/Time	OCT 26 2015 1500	Received By	J Beck TART	Print [Signature]	Sign [Signature]	Date/Time	OCT 26 2015 1500	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other

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

C.O.C. #
S16-010-643
Page 1 of 1

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, OCTOBER 2015	Logbook No.	HNF-N-506 80/9	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS		PRIORITY		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** 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 438.1					
Sample No.	B32Y80	Filter	N	Date	OCT 26 2015
		*	W	Time	1313
		No./Type Container	1x500-ml P	Sample Analysis	300.0 ANIONS_IC: COMMON
		Holding Time	48 Hours	Preservative	Cool <=6C

November 10, 2015

#1221
w C6500

Reinquished By	CHRIS FULTON CHPRC	Print	Sign	Date/Time	OCT 26 2015 1350	Received By	LD. Walf CHPRC	Print	Sign	Date/Time	OCT 26 2015 1350
Reinquished By	LD. Walf CHPRC	Print	Sign	Date/Time	OCT 26 2015 1500	Received By	J. Bock, TARL	Print	Sign	Date/Time	OCT 26 2015 1500
Reinquished By		Date/Time		Received By		Date/Time		Date/Time			
Reinquished By		Date/Time		Received By		Date/Time		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time								

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

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CH2MHM Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S16-010-644**
Page 1 of 1

Collector CHRIS FULTON CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650
SAF No. S16-010	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071
Project Title SURV, OCTOBER 2015	Logbook No. HNF-N-50680 / 8	Ice Chest No. N/A
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A
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		
Sample No. B32Y81	Filter N	Date OCT 26 2015
	* W	Time 1226
	No./Type Container 1x500-ml P	Sample Analysis 300.0 ANIONS_IC: COMMON
	Holding Time 48 Hours	Preservative Cool <=6C

November 10, 2015

#1221
W 66500

Relinquished By CHRIS FULTON CHPRC	Sign 	Date/Time OCT 26 2015 1350	Received By L.D. Wall CHPRC	Print 	Sign 	Date/Time OCT 26 2015 1350	Matrix * S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WT = Wipe L = Liquid V = Vegetation X = Other
Relinquished By L.D. Wall CHPRC	Sign 	Date/Time OCT 26 2015 1500	Received By J. Bock, TARL	Print 	Sign 	Date/Time OCT 26 2015 1500	
Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time	
Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time	

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-010-303
Page 1 of 1

Company CH2M Hill Plateau Remediation Company		MA White		C.O.C. # S16-010-303	
Collector	CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURY, OCTOBER 2015	Logbook No.	HNF-N-506 76 / 91	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURY	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			N/A		
Sample No.	Filter	*	Date	Time	No/Type Container
B32N13	N	W	10-26-15	1042	1x500-mL P
Sample Analysis			Holding Time		
300.0_ANIONS_IC: COMM/ON			48 Hours		
Preservative			Cool <=6C		

November 10, 2015

1221
WCO500

Relinquished By	MA White CHPRC	Print [Signature]	Sign [Signature]	Date/Time OCT 26 2015 1052	Received By	F.M. Hall/CHPRC	Print [Signature]	Sign [Signature]	Date/Time OCT 26 2015 1052	Matrix *
Relinquished By	F.M. Hall/CHPRC	[Signature]	[Signature]	OCT 26 2015 1500	Received By	J. Bock, TARL	[Signature]	[Signature]	OCT 26 2015 1500	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By					Received By					DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
FINAL SAMPLE DISPOSITION					Disposal Method (e.g., Return to customer, per lab procedure, used in process)					
Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Disposed By					
Date/Time					Date/Time					



CH2M Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CO.C.#
S16-010-243
Page 1 of 1

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, OCTOBER 2015	Logbook No.	HNF-N-506 <u>80/B</u>	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			N/A		

Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B32RN4	N	OCT 26 2015	0745	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

#1221
W 6500

November 10, 2015

Relinquished By	CHRIS FULTON CHPRC	Print 	Sign	Date/Time	OCT 26 2015 1115	Received By	LD.Wall CHPRC	Print 	Sign	Date/Time	OCT 26 2015 1115
Relinquished By	LD.Wall CHPRC	Print 	Sign	Date/Time	OCT 26 2015 1500	Received By	J. Bock, TARL	Print 	Sign	Date/Time	OCT 26 2015 1500
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	WT	= 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
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November 10, 2015
Detection Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: B32PB1

Lab Sample ID: 300-1221-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0073		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32PB3

Lab Sample ID: 300-1221-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0074		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32NJ4

Lab Sample ID: 300-1221-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.016		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32NJ6

Lab Sample ID: 300-1221-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.017		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32PB7

Lab Sample ID: 300-1221-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0096		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32PB9

Lab Sample ID: 300-1221-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0091		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B32PB0

Lab Sample ID: 300-1221-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	6.3	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.11	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	220	D	1.3	0.63	mg/L	5		300.0	Total/NA
Bromide	0.23	B D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B32Y52

Lab Sample ID: 300-1221-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.9	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.13	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	140	D	1.3	0.63	mg/L	5		300.0	Total/NA
Bromide	0.20	B D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B32Y80

Lab Sample ID: 300-1221-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	13	D	0.14	0.070	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

November 10, 2015
Detection Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: B32Y80 (Continued)

Lab Sample ID: 300-1221-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.23	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	55	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B32Y81

Lab Sample ID: 300-1221-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	9.9	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.26	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	54	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B32NJ3

Lab Sample ID: 300-1221-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	0.52	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.19	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	16	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B32RN4

Lab Sample ID: 300-1221-12

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

November 10, 2015
Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Client Sample ID: B32PB1
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0073		0.0040	0.0015	mg/L			10/26/15 17:51	1

Client Sample ID: B32PB3
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0074		0.0040	0.0015	mg/L			10/26/15 17:51	1

Client Sample ID: B32NJ4
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.016		0.0040	0.0015	mg/L			10/26/15 17:52	1

Client Sample ID: B32NJ6
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-4
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.017		0.0040	0.0015	mg/L			10/26/15 17:52	1

Client Sample ID: B32PB7
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0096		0.0040	0.0015	mg/L			10/26/15 17:52	1

Client Sample ID: B32PB9
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0091		0.0040	0.0015	mg/L			10/26/15 17:53	1

Client Sample ID: B32PB0
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17	D	0.40	0.20	mg/L			10/27/15 13:47	2
Nitrate as N	6.3	D	0.056	0.028	mg/L			10/27/15 13:47	2
Fluoride	0.11	D	0.10	0.050	mg/L			10/27/15 13:47	2

TestAmerica Richland

November 10, 2015
Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Client Sample ID: B32PB0
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 13:47	2
Orthophosphate as P	0.082	U N	0.16	0.082	mg/L			10/27/15 13:47	2
Sulfate	220	D	1.3	0.63	mg/L			10/27/15 16:48	5
Bromide	0.23	B D	0.25	0.13	mg/L			10/27/15 13:47	2

Client Sample ID: B32Y52
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14	D	0.40	0.20	mg/L			10/27/15 13:02	2
Nitrate as N	5.9	D	0.056	0.028	mg/L			10/27/15 13:02	2
Fluoride	0.13	D	0.10	0.050	mg/L			10/27/15 13:02	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 13:02	2
Orthophosphate as P	0.082	U N	0.16	0.082	mg/L			10/27/15 13:02	2
Sulfate	140	D	1.3	0.63	mg/L			10/27/15 16:03	5
Bromide	0.20	B D	0.25	0.13	mg/L			10/27/15 13:02	2

Client Sample ID: B32Y80
Date Collected: 10/26/15 13:13
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13	D	0.40	0.20	mg/L			10/27/15 14:02	2
Nitrate as N	13	D	0.14	0.070	mg/L			10/27/15 17:03	5
Fluoride	0.23	D	0.10	0.050	mg/L			10/27/15 14:02	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 14:02	2
Sulfate	55	D	0.50	0.25	mg/L			10/27/15 14:02	2

Client Sample ID: B32Y81
Date Collected: 10/26/15 12:26
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13	D	0.40	0.20	mg/L			10/27/15 14:17	2
Nitrate as N	9.9	D	0.056	0.028	mg/L			10/27/15 14:17	2
Fluoride	0.26	D	0.10	0.050	mg/L			10/27/15 14:17	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 14:17	2
Sulfate	54	D	0.50	0.25	mg/L			10/27/15 14:17	2

Client Sample ID: B32NJ3
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7	D	0.40	0.20	mg/L			10/27/15 14:32	2

TestAmerica Richland

November 10, 2015
Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: B32NJ3
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.52	D	0.056	0.028	mg/L			10/27/15 14:32	2
Fluoride	0.19	D	0.10	0.050	mg/L			10/27/15 14:32	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 14:32	2
Sulfate	16	D	0.50	0.25	mg/L			10/27/15 14:32	2

Client Sample ID: B32RN4
Date Collected: 10/26/15 07:45
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-12
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U	0.40	0.20	mg/L			10/27/15 14:47	2
Nitrate as N	0.028	U	0.056	0.028	mg/L			10/27/15 14:47	2
Fluoride	0.050	U	0.10	0.050	mg/L			10/27/15 14:47	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/27/15 14:47	2
Sulfate	0.25	U	0.50	0.25	mg/L			10/27/15 14:47	2

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1655/5
Matrix: Water
Analysis Batch: 1655

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			10/27/15 12:32	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			10/27/15 12:32	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			10/27/15 12:32	1

Lab Sample ID: LCS 300-1655/6
Matrix: Water
Analysis Batch: 1655

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.39		mg/L		106	80 - 120
Nitrite as N	3.04	3.23		mg/L		106	80 - 120
Orthophosphate as P	6.53	6.81		mg/L		104	80 - 120

Lab Sample ID: 300-1221-8 MS
Matrix: Water
Analysis Batch: 1655

Client Sample ID: B32Y52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.9	D	0.452	6.35	D	mg/L		107	75 - 125
Nitrite as N	0.038	U	0.609	0.575	D	mg/L		95	75 - 125
Orthophosphate as P	0.082	U N	1.31	0.631	D N	mg/L		48	75 - 125

Lab Sample ID: 300-1221-8 DU
Matrix: Water
Analysis Batch: 1655

Client Sample ID: B32Y52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	5.9	D	5.85	D	mg/L		0.2	20
Nitrite as N	0.038	U	0.038	U	mg/L		NC	20
Orthophosphate as P	0.082	U N	0.082	U	mg/L		NC	20

Lab Sample ID: MB 300-1656/5
Matrix: Water
Analysis Batch: 1656

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			10/27/15 12:32	1
Fluoride	0.025	U	0.050	0.025	mg/L			10/27/15 12:32	1
Sulfate	0.13	U	0.25	0.13	mg/L			10/27/15 12:32	1
Bromide	0.063	U	0.13	0.063	mg/L			10/27/15 12:32	1

Lab Sample ID: LCS 300-1656/6
Matrix: Water
Analysis Batch: 1656

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	16.7		mg/L		104	80 - 120
Fluoride	4.00	4.18		mg/L		105	80 - 120
Sulfate	20.0	21.0		mg/L		105	80 - 120

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 300-1656/6
 Matrix: Water
 Analysis Batch: 1656

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.6		mg/L		106	80 - 120

Lab Sample ID: 300-1221-8 MS
 Matrix: Water
 Analysis Batch: 1656

Client Sample ID: B32Y52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	14	D	3.20	17.0	D	mg/L		107	75 - 125
Fluoride	0.13	D	0.800	0.900	D	mg/L		97	75 - 125
Bromide	0.20	B D	2.00	2.05	D	mg/L		92	75 - 125

Lab Sample ID: 300-1221-8 MS
 Matrix: Water
 Analysis Batch: 1656

Client Sample ID: B32Y52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	140	D	10.0	153	D	mg/L		107	75 - 125

Lab Sample ID: 300-1221-8 DU
 Matrix: Water
 Analysis Batch: 1656

Client Sample ID: B32Y52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	14	D	13.6	D	mg/L		0.2	20
Fluoride	0.13	D	0.127	D	mg/L		0.06	20
Bromide	0.20	B D	0.203	B D	mg/L		0.4	20

Lab Sample ID: 300-1221-8 DU
 Matrix: Water
 Analysis Batch: 1656

Client Sample ID: B32Y52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	140	D	140	D	mg/L		1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1650/3
 Matrix: Water
 Analysis Batch: 1650

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			10/26/15 17:43	1

Lab Sample ID: LCS 300-1650/4
 Matrix: Water
 Analysis Batch: 1650

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.258		mg/L		103	80 - 120

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-1220-A-1 MS
Matrix: Water
Analysis Batch: 1650

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
Cr (VI)	0.0046		0.0500	0.0575		mg/L		106	85 - 115

Lab Sample ID: 300-1220-A-1 DU
Matrix: Water
Analysis Batch: 1650

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0046		0.00460		mg/L		0	20



November 10, 2015
QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

HPLC/IC

Analysis Batch: 1655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1221-7	B32PB0	Total/NA	Water	300.0	
300-1221-8	B32Y52	Total/NA	Water	300.0	
300-1221-8 DU	B32Y52	Total/NA	Water	300.0	
300-1221-8 MS	B32Y52	Total/NA	Water	300.0	
300-1221-9	B32Y80	Total/NA	Water	300.0	
300-1221-9	B32Y80	Total/NA	Water	300.0	
300-1221-10	B32Y81	Total/NA	Water	300.0	
300-1221-11	B32NJ3	Total/NA	Water	300.0	
300-1221-12	B32RN4	Total/NA	Water	300.0	
LCS 300-1655/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1655/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1221-7	B32PB0	Total/NA	Water	300.0	
300-1221-7	B32PB0	Total/NA	Water	300.0	
300-1221-8	B32Y52	Total/NA	Water	300.0	
300-1221-8	B32Y52	Total/NA	Water	300.0	
300-1221-8 DU	B32Y52	Total/NA	Water	300.0	
300-1221-8 DU	B32Y52	Total/NA	Water	300.0	
300-1221-8 MS	B32Y52	Total/NA	Water	300.0	
300-1221-8 MS	B32Y52	Total/NA	Water	300.0	
300-1221-9	B32Y80	Total/NA	Water	300.0	
300-1221-10	B32Y81	Total/NA	Water	300.0	
300-1221-11	B32NJ3	Total/NA	Water	300.0	
300-1221-12	B32RN4	Total/NA	Water	300.0	
LCS 300-1656/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1656/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1220-A-1 DU	Duplicate	Total/NA	Water	7196A	
300-1220-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-1221-1	B32PB1	Total/NA	Water	7196A	
300-1221-2	B32PB3	Total/NA	Water	7196A	
300-1221-3	B32NJ4	Total/NA	Water	7196A	
300-1221-4	B32NJ6	Total/NA	Water	7196A	
300-1221-5	B32PB7	Total/NA	Water	7196A	
300-1221-6	B32PB9	Total/NA	Water	7196A	
LCS 300-1650/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1650/3	Method Blank	Total/NA	Water	7196A	

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: B32PB1
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:51	AMC	TAL RCH

Client Sample ID: B32PB3
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:51	AMC	TAL RCH

Client Sample ID: B32NJ4
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:52	AMC	TAL RCH

Client Sample ID: B32NJ6
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:52	AMC	TAL RCH

Client Sample ID: B32PB7
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:52	AMC	TAL RCH

Client Sample ID: B32PB9
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:53	AMC	TAL RCH

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: B32PB0
Date Collected: 10/26/15 09:01
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 13:47	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 13:47	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:48	CPM	TAL RCH

Client Sample ID: B32Y52
Date Collected: 10/26/15 12:18
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 13:02	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 13:02	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:03	CPM	TAL RCH

Client Sample ID: B32Y80
Date Collected: 10/26/15 13:13
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 14:02	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 14:02	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1655	10/27/15 17:03	CPM	TAL RCH

Client Sample ID: B32Y81
Date Collected: 10/26/15 12:26
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 14:17	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 14:17	CPM	TAL RCH

Client Sample ID: B32NJ3
Date Collected: 10/26/15 10:42
Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 14:32	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 14:32	CPM	TAL RCH

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Client Sample ID: B32RN4

Lab Sample ID: 300-1221-12

Date Collected: 10/26/15 07:45

Matrix: Water

Date Received: 10/26/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 14:47	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 14:47	CPM	TAL RCH

Client Sample ID: Duplicate

Lab Sample ID: 300-1220-A-1 DU

Date Collected: 10/26/15 12:25

Matrix: Water

Date Received: 10/26/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:46	AMC	TAL RCH

Client Sample ID: B32Y52

Lab Sample ID: 300-1221-8 DU

Date Collected: 10/26/15 12:18

Matrix: Water

Date Received: 10/26/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 13:32	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 13:32	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:33	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1650/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:43	AMC	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1655/6

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1655	10/27/15 12:47	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1656/6

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1656	10/27/15 12:47	CPM	TAL RCH

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1650/3

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1650	10/26/15 17:43	AMC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1655/5

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1655	10/27/15 12:32	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1656/5

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1656	10/27/15 12:32	CPM	TAL RCH

Client Sample ID: Matrix Spike

Lab Sample ID: 300-1220-A-1 MS

Date Collected: 10/26/15 12:25

Matrix: Water

Date Received: 10/26/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1		3.0 mL	1650	10/26/15 17:43	AMC	TAL RCH

Client Sample ID: B32Y52

Lab Sample ID: 300-1221-8 MS

Date Collected: 10/26/15 12:18

Matrix: Water

Date Received: 10/26/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1655	10/27/15 13:17	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 13:17	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:18	CPM	TAL RCH

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
SDG: WC0500

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

Protocol References:

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 RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131



Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1221-1
 SDG: WC0500

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1221-1	B32PB1	Water	10/26/15 09:01	10/26/15 15:00
300-1221-2	B32PB3	Water	10/26/15 09:01	10/26/15 15:00
300-1221-3	B32NJ4	Water	10/26/15 10:42	10/26/15 15:00
300-1221-4	B32NJ6	Water	10/26/15 10:42	10/26/15 15:00
300-1221-5	B32PB7	Water	10/26/15 12:18	10/26/15 15:00
300-1221-6	B32PB9	Water	10/26/15 12:18	10/26/15 15:00
300-1221-7	B32PB0	Water	10/26/15 09:01	10/26/15 15:00
300-1221-8	B32Y52	Water	10/26/15 12:18	10/26/15 15:00
300-1221-9	B32Y80	Water	10/26/15 13:13	10/26/15 15:00
300-1221-10	B32Y81	Water	10/26/15 12:26	10/26/15 15:00
300-1221-11	B32NJ3	Water	10/26/15 10:42	10/26/15 15:00
300-1221-12	B32RN4	Water	10/26/15 07:45	10/26/15 15:00



Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1221-1

SDG Number: WC0500

Login Number: 1221**List Number: 1****Creator: Friesz, Jordan D****List Source: TestAmerica Richland**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	