

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: 300-2425-1

TestAmerica Sample Delivery Group: WC0868

Client Project/Site: S16-002

Revision: 1

For:

CH2M Hill Plateau Remediation Company

PO BOX 1600

Mail Stop R3-50

Richland, Washington 99352

Attn: CPP Sample Management

Whitney Ritari

Authorized for release by:

8/11/2016 8:42:19 AM

Whitney Ritari, Project Manager I

(509)375-3131 ext164

whitney.ritari@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.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 desingee 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.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Chain of Custody	6
Detection Summary	15
Client Sample Results	17
QC Sample Results	20
QC Association Summary	23
Lab Chronicle	24
Method Summary	29
Sample Summary	30
Receipt Checklists	31

Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.
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)

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Job ID: 300-2425-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative 300-2425-1

Comments

This report has been amended in response to a P&D generated May 18, 2016. For more information, refer to P&D attached to report.

Receipt

The samples were received on 2/29/2016 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.9° C.

HPLC/IC

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

General Chemistry

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



Problem and Discrepancy Report

TARL

WC0868

05/18/16

The data package has the following issues:

- The results for sample B344C2 (300-2425-13) have inconsistent D flags in the hard copy and EDD, please add D flag to Chloride, Fluoride, Sulfate and Bromide results.

Resolution: *Provide correction.*

Lab Response: **The D flags have been added. The hard copy and EDD have been updated to reflect the changes made.**

Please correct the issues and submit the hard copy and electronic data packages.

Provide a resolution to each issue noted on the report

Page 1 of 1

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-141

Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 03/37	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	CERCLA	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			SPECIAL INSTRUCTIONS		
			PRIORITY		
			Hold Time		
			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
B344C4	N	FEB 29 2016	0745	1x60-ml ag	7196_CR6: COMMON	24 Hours	Cool <=6C
B344C8	Y	W		1x60-ml ag	7196_CR6: COMMON	24 Hours	Cool <=6C

#2425
WCS&8

300-2425 CO



Relinquished By	Scott King CHPRC	Print	Sign	Date/Time	Received By	M.A. White CHPRC	Print	Sign	Date/Time
				FEB 29 2016 1100					FEB 29 2016 1100
Relinquished By	M.A. White CHPRC	Print	Sign	Date/Time	Received By	1. Bock, TARI	Print	Sign	Date/Time
				FEB 29 2016 1430					FEB 29 2016 1430

Matrix *	
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

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-144
Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 <u>55/57</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	CERCLA	Priority:	30 Days PRIORITY	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		
			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
B344D2	N		FEB 29 2016	0900	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B344D4	Y		W		1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

W 29AS
W 00806

Relinquished By	Print CHPRC	Sign	Date/Time FEB 29 2016 11:00	Received By	Print M.A. White CHPRC	Sign	Date/Time FEB 29 2016 11:00
Relinquished By	M.A. White	M.A. White	FEB 29 2016 1430	Received By	J. Bock, TARI	J. Bock, TARI	FEB 29 2016 1430
Relinquished By				Received By			

- 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	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-146
Page 1 of 1

Collector	Scott King CHPRC S16-002	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650		
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071		
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 83/37	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	CERCLA	Priority:	30 Days PRIORITY	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				
FEB 29 2016			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
B344F1	N	W	10:19 AM	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B344F2	Y	W	11:00 AM	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

2425
WCSK64

Relinquished By	Print CHPRC	Signature	Date/Time	Received By	Print CHPRC	Signature	Date/Time	Matrix *
M.A. White			FEB 29 2016 11:00	M.A. White			FEB 29 2016 11:00	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By	Print CHPRC	Signature	Date/Time	Received By	Print CHPRC	Signature	Date/Time	DS = Drum Solids DL = Drum Liquids T = Tissue WT = Wipe L = Liquid V = Vegetation X = Other
M.A. White			FEB 29 2016 1430	J. Bock, TARL			FEB 29 2016 1430	
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-127
Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-50655 138	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	CERCLA	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		
			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
B34468	Y		FEB 29 2016	1040	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B34466	N		W	Y	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

* 2425
used

Relinquished By	Scott King CHPRC	Sign	Date/Time	Received By	M.A. White CHPRC	Sign	Date/Time
Relinquished By	M.A. White CHPRC	Sign	Date/Time	Received By	J. Brock TARRL	Sign	Date/Time

Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

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

PRINTED ON 12/17/2015 FSR ID = FSR13661 A-6004-842 (REV 2)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-143

Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 <u>83/38</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	CERCLA	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		
			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
B344C9	Y	FEB 29 2016	1005	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B344C5	N	W	V	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

2425
30385

Relinquished By	Scott King CHPRC	Print	Sign	Date/Time	Received By	M.A. White CHPRC	Print	Sign	Date/Time	Matrix *
Relinquished By	M.A. White CHPRC	Print	Sign	FEB 29 2016 1430	Received By	J. Bock, TARL	Print	Sign	FEB 29 2016 1100	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WL = Wipe L = Liquid V = Vegetation X = Other
Relinquished 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			

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-138

Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 <i>583/38</i>	Ice Chest No.	N/A
Shipped To (Lab)	Test/America Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	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		
			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
B344B2	Y	FEB 29 2016	0947	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B344B9	N	W		1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

2435
WCS&S

Relinquished By	Scott King CHPRC	Print	Sign	Date/Time	Received By	M.A. White CHPRC	Print	Sign	Date/Time	Matrix *
Relinquished By	M.A. White CHPRC	<i>[Signature]</i>		FEB 29 2016 1100	Received By	M.A. White CHPRC	<i>[Signature]</i>		FEB 29 2016 1100	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By				FEB 29 2016 1430	Received By	J. Beck, TARI			FEB 29 2016 1430	DS = Drum Solids DL = Drum Liquids T = Tissue WT = Wipe L = Liquid V = Vegetation X = Other

Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-140
Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 <i>82137</i>	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	CERCLA	Priority:	30 Days PRIORITY	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		
Sample No.	B344C2	Filter	N	Date	FEB 29 2016
		* Date		Time	5745
		No./Type Container	1x500-ml P	Sample Analysis	300.0 ANIONS_IC: COMMON; 300.0 ANIONS_IC: GW 02
		Holding Time	48 Hours	Preservative	Cool <=6C
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Handwritten: # 2425
weosko

Relinquished By	Scott King CHPRC	Print	Sign	Date/Time	FEB 29 2016 1100	Received By	M.A. White CHPRC	Print	Sign	Date/Time	FEB 29 2016 1100
Relinquished By	M.A. White CHPRC	Print	Sign	Date/Time	FEB 29 2016 1430	Received By	J. Bock, TARL	Print	Sign	Date/Time	FEB 29 2016 1430
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)					
Disposited By						Date/Time					

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-142
Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-506 <i>83/38</i>	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	CERCLA	Priority:	30 Days PRIORITY	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		
Sample No.	Filter	Date	No/Type Container	Sample Analysis	Holding Time
B344C3	N	FEB 29 2016	1x500-mL P	300.0 ANIONS_IC: COMMON; 300.0 ANIONS_IC: GW 02	48 Hours
					Preservative
					Cool <=6C

*2425
WCS&S*

Relinquished By	Scott King CHPRC	Print	Sign	Date/Time	Received By	M.A. White CHPRC	Print	Sign	Date/Time	Matrix *
Relinquished By	M.A. White CHPRC			FEB 29 2016 1100	Received By	J. Bock, TARL			FEB 29 2016 1100	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By				FEB 29 2016 1430	Received By				FEB 29 2016 1430	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)			Disposed By		Date/Time			

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-002-090

Page 1 of 1

Collector	Scott King CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, FEBRUARY 2016	Logbook No.	HNF-N-5066 <i>BB/38</i>	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	CERCLA	Priority:	30 Days PRIORITY	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		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis
B34465	N	FEB 29 2016	1040	1X500-ml P	300.0 ANIONS_IC: COMMON; 300.0 ANIONS_IC: GW 02
					Holding Time
					48 Hours
					Preservative
					Cool <=6C

*WAS
WCSBOK*

Reinquished By	Scott King CHPRC	Print	Sign	Date/Time	Received By	M.A. White CHPRC	Print	Sign	Date/Time
				FEB 29 2016 1100					FEB 29 2016 1100
Reinquished By	M.A. White CHPRC	Print	Sign	Date/Time	Received By	J. Bock, TARL	Print	Sign	Date/Time
				FEB 29 2016 1430					FEB 29 2016 1430
Reinquished By				Date/Time	Received By				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
 - 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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Client Sample ID: B344C4

Lab Sample ID: 300-2425-1

No Detections.

Client Sample ID: B344C8

Lab Sample ID: 300-2425-2

No Detections.

Client Sample ID: B344D2

Lab Sample ID: 300-2425-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.091		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344D4

Lab Sample ID: 300-2425-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.086		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344F1

Lab Sample ID: 300-2425-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0097		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344F2

Lab Sample ID: 300-2425-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0094		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B34468

Lab Sample ID: 300-2425-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.13		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B34466

Lab Sample ID: 300-2425-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.13		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344C9

Lab Sample ID: 300-2425-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.18		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344C5

Lab Sample ID: 300-2425-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.18		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344B2

Lab Sample ID: 300-2425-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0092		0.0040	0.0015	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B34499

Lab Sample ID: 300-2425-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0094		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B344C2

Lab Sample ID: 300-2425-13

No Detections.

Client Sample ID: B344C3

Lab Sample ID: 300-2425-14

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	6.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.12	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	150	D	1.3	0.63	mg/L	5		300.0	Total/NA
Bromide	0.21	B D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B34465

Lab Sample ID: 300-2425-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18	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	0.12	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	200	D	1.3	0.63	mg/L	5		300.0	Total/NA
Bromide	0.22	B D	0.25	0.13	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B344C4
Date Collected: 02/29/16 07:45
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		02/29/16 18:48	1

Client Sample ID: B344C8
Date Collected: 02/29/16 07:45
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		02/29/16 18:48	1

Client Sample ID: B344D2
Date Collected: 02/29/16 09:00
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.091		0.0040	0.0015	mg/L	-		02/29/16 18:48	1

Client Sample ID: B344D4
Date Collected: 02/29/16 09:00
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-4
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.086		0.0040	0.0015	mg/L	-		02/29/16 18:49	1

Client Sample ID: B344F1
Date Collected: 02/29/16 09:10
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0097		0.0040	0.0015	mg/L	-		02/29/16 18:52	1

Client Sample ID: B344F2
Date Collected: 02/29/16 09:10
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0094		0.0040	0.0015	mg/L	-		02/29/16 18:52	1

Client Sample ID: B34468
Date Collected: 02/29/16 10:40
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-7
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.13		0.0040	0.0015	mg/L	-		02/29/16 18:53	1

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B34466

Date Collected: 02/29/16 10:40

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.13		0.0040	0.0015	mg/L			02/29/16 18:53	1

Client Sample ID: B344C9

Date Collected: 02/29/16 10:05

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-9

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.18		0.0040	0.0015	mg/L			02/29/16 18:53	1

Client Sample ID: B344C5

Date Collected: 02/29/16 10:05

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-10

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.18		0.0040	0.0015	mg/L			02/29/16 18:53	1

Client Sample ID: B344B2

Date Collected: 02/29/16 09:47

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-11

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0092		0.0040	0.0015	mg/L			02/29/16 18:54	1

Client Sample ID: B34499

Date Collected: 02/29/16 09:47

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-12

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0094		0.0040	0.0015	mg/L			02/29/16 18:56	1

Client Sample ID: B344C2

Date Collected: 02/29/16 07:45

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U D	0.40	0.20	mg/L			03/01/16 13:20	2
Nitrate as N	0.028	U D	0.056	0.028	mg/L			03/01/16 13:20	2
Fluoride	0.050	U D	0.10	0.050	mg/L			03/01/16 13:20	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			03/01/16 13:20	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			03/01/16 13:20	2
Sulfate	0.25	U D	0.50	0.25	mg/L			03/01/16 13:20	2
Bromide	0.13	U D	0.25	0.13	mg/L			03/01/16 13:20	2

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B344C3

Lab Sample ID: 300-2425-14

Date Collected: 02/29/16 10:05

Matrix: Water

Date Received: 02/29/16 14:30

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			03/01/16 13:35	2
Nitrate as N	6.7	D	0.056	0.028	mg/L			03/01/16 13:35	2
Fluoride	0.12	D	0.10	0.050	mg/L			03/01/16 13:35	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			03/01/16 13:35	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			03/01/16 13:35	2
Sulfate	150	D	1.3	0.63	mg/L			03/01/16 14:36	5
Bromide	0.21	B D	0.25	0.13	mg/L			03/01/16 13:35	2

Client Sample ID: B34465

Lab Sample ID: 300-2425-15

Date Collected: 02/29/16 10:40

Matrix: Water

Date Received: 02/29/16 14:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18	D	0.40	0.20	mg/L			03/01/16 13:50	2
Nitrate as N	6.3	D	0.056	0.028	mg/L			03/01/16 13:50	2
Fluoride	0.12	D	0.10	0.050	mg/L			03/01/16 13:50	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			03/01/16 13:50	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			03/01/16 13:50	2
Sulfate	200	D	1.3	0.63	mg/L			03/01/16 14:51	5
Bromide	0.22	B D	0.25	0.13	mg/L			03/01/16 13:50	2

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-3230/5
Matrix: Water
Analysis Batch: 3230

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			03/01/16 11:35	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			03/01/16 11:35	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			03/01/16 11:35	1

Lab Sample ID: LCS 300-3230/6
Matrix: Water
Analysis Batch: 3230

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	2.31		mg/L		102	80 - 120
Nitrite as N	3.04	3.11		mg/L		102	80 - 120
Orthophosphate as P	6.53	6.72		mg/L		103	80 - 120

Lab Sample ID: 300-2426-A-19 MS
Matrix: Water
Analysis Batch: 3230

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
Nitrate as N	0.30	D	0.452	0.729	D	mg/L		96	75 - 125
Nitrite as N	0.038	U D	0.609	0.553	D	mg/L		91	75 - 125
Orthophosphate as P	0.082	U D	1.31	1.16	D	mg/L		89	75 - 125

Lab Sample ID: 300-2426-A-19 DU
Matrix: Water
Analysis Batch: 3230

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	0.30	D	0.295	D	mg/L		0.6	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20
Orthophosphate as P	0.082	U D	0.082	U D	mg/L		NC	20

Lab Sample ID: MB 300-3231/5
Matrix: Water
Analysis Batch: 3231

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			03/01/16 11:35	1
Fluoride	0.025	U	0.050	0.025	mg/L			03/01/16 11:35	1
Sulfate	0.13	U	0.25	0.13	mg/L			03/01/16 11:35	1
Bromide	0.063	U	0.13	0.063	mg/L			03/01/16 11:35	1

Lab Sample ID: LCS 300-3231/6
Matrix: Water
Analysis Batch: 3231

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	16.1		mg/L		101	80 - 120
Fluoride	4.00	4.06		mg/L		102	80 - 120
Sulfate	20.0	20.3		mg/L		102	80 - 120

TestAmerica Richland

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 300-3231/6
Matrix: Water
Analysis Batch: 3231

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	10.2		mg/L		102	80 - 120

Lab Sample ID: 300-2426-A-19 MS
Matrix: Water
Analysis Batch: 3231

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
Chloride	1.2	D	3.20	4.33	D	mg/L		97	75 - 125
Fluoride	0.11	D	0.800	0.842	D	mg/L		92	75 - 125
Sulfate	11	D	4.00	15.1	D	mg/L		103	75 - 125
Bromide	0.13	U	2.00	1.83	D	mg/L		92	75 - 125

Lab Sample ID: 300-2426-A-19 DU
Matrix: Water
Analysis Batch: 3231

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.2	D	1.20	D	mg/L		0.8	20
Fluoride	0.11	D	0.108	D	mg/L		0.5	20
Sulfate	11	D	10.9	D	mg/L		0.6	20
Bromide	0.13	U	0.13	U	mg/L		NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-3249/3
Matrix: Water
Analysis Batch: 3249

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			02/29/16 18:44	1

Lab Sample ID: LCS 300-3249/4
Matrix: Water
Analysis Batch: 3249

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.251	0.248		mg/L		99	80 - 120

Lab Sample ID: 300-2424-A-1 MS
Matrix: Water
Analysis Batch: 3249

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)	0.016		0.0500	0.0651		mg/L		98	75 - 125

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-2424-A-1 DU
 Matrix: Water
 Analysis Batch: 3249

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.016		0.0163		mg/L		2	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

HPLC/IC

Analysis Batch: 3230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-2425-13	B344C2	Total/NA	Water	300.0	
300-2425-14	B344C3	Total/NA	Water	300.0	
300-2425-15	B34465	Total/NA	Water	300.0	
300-2426-A-19 DU	Duplicate	Total/NA	Water	300.0	
300-2426-A-19 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-3230/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-3230/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 3231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-2425-13	B344C2	Total/NA	Water	300.0	
300-2425-14	B344C3	Total/NA	Water	300.0	
300-2425-14	B344C3	Total/NA	Water	300.0	
300-2425-15	B34465	Total/NA	Water	300.0	
300-2425-15	B34465	Total/NA	Water	300.0	
300-2426-A-19 DU	Duplicate	Total/NA	Water	300.0	
300-2426-A-19 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-3231/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-3231/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 3249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-2424-A-1 DU	Duplicate	Total/NA	Water	7196A	
300-2424-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-2425-1	B344C4	Total/NA	Water	7196A	
300-2425-2	B344C8	Total/NA	Water	7196A	
300-2425-3	B344D2	Total/NA	Water	7196A	
300-2425-4	B344D4	Total/NA	Water	7196A	
300-2425-5	B344F1	Total/NA	Water	7196A	
300-2425-6	B344F2	Total/NA	Water	7196A	
300-2425-7	B34468	Total/NA	Water	7196A	
300-2425-8	B34466	Total/NA	Water	7196A	
300-2425-9	B344C9	Total/NA	Water	7196A	
300-2425-10	B344C5	Total/NA	Water	7196A	
300-2425-11	B344B2	Total/NA	Water	7196A	
300-2425-12	B34499	Total/NA	Water	7196A	
LCS 300-3249/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-3249/3	Method Blank	Total/NA	Water	7196A	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Client Sample ID: B344C4
Date Collected: 02/29/16 07:45
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-1
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			3249	02/29/16 18:48	AMC	TAL RCH

Client Sample ID: B344C8
Date Collected: 02/29/16 07:45
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-2
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			3249	02/29/16 18:48	AMC	TAL RCH

Client Sample ID: B344D2
Date Collected: 02/29/16 09:00
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-3
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			3249	02/29/16 18:48	AMC	TAL RCH

Client Sample ID: B344D4
Date Collected: 02/29/16 09:00
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-4
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			3249	02/29/16 18:49	AMC	TAL RCH

Client Sample ID: B344F1
Date Collected: 02/29/16 09:10
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-5
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			3249	02/29/16 18:52	AMC	TAL RCH

Client Sample ID: B344F2
Date Collected: 02/29/16 09:10
Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-6
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			3249	02/29/16 18:52	AMC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B34468

Date Collected: 02/29/16 10:40

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-7

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	7196A		1			3249	02/29/16 18:53	AMC	TAL RCH

Client Sample ID: B34466

Date Collected: 02/29/16 10:40

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-8

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	7196A		1			3249	02/29/16 18:53	AMC	TAL RCH

Client Sample ID: B344C9

Date Collected: 02/29/16 10:05

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-9

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	7196A		1			3249	02/29/16 18:53	AMC	TAL RCH

Client Sample ID: B344C5

Date Collected: 02/29/16 10:05

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-10

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	7196A		1			3249	02/29/16 18:53	AMC	TAL RCH

Client Sample ID: B344B2

Date Collected: 02/29/16 09:47

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-11

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	7196A		1			3249	02/29/16 18:54	AMC	TAL RCH

Client Sample ID: B34499

Date Collected: 02/29/16 09:47

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-12

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			3249	02/29/16 18:56	AMC	TAL RCH

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

Client Sample ID: B344C2

Date Collected: 02/29/16 07:45

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-13

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		3230	03/01/16 13:20	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		3231	03/01/16 13:20	CPM	TAL RCH

Client Sample ID: B344C3

Date Collected: 02/29/16 10:05

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		3230	03/01/16 13:35	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		3231	03/01/16 13:35	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		3231	03/01/16 14:36	CPM	TAL RCH

Client Sample ID: B34465

Date Collected: 02/29/16 10:40

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2425-15

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		3230	03/01/16 13:50	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		3231	03/01/16 13:50	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		3231	03/01/16 14:51	CPM	TAL RCH

Client Sample ID: Duplicate

Date Collected: 02/29/16 08:50

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2424-A-1 DU

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			3249	02/29/16 18:47	AMC	TAL RCH

Client Sample ID: Duplicate

Date Collected: 02/29/16 10:30

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2426-A-19 DU

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		3230	03/01/16 12:35	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		3231	03/01/16 12:35	CPM	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-3230/6

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		3230	03/01/16 11:50	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-3231/6

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		3231	03/01/16 11:50	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-3249/4

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			3249	02/29/16 18:44	AMC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-3230/5

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		3230	03/01/16 11:35	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-3231/5

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		3231	03/01/16 11:35	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-3249/3

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			3249	02/29/16 18:44	AMC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Client Sample ID: Matrix Spike

Date Collected: 02/29/16 08:50

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2424-A-1 MS

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		3.0 mL	3249	02/29/16 18:44	AMC	TAL RCH

Client Sample ID: Matrix Spike

Date Collected: 02/29/16 10:30

Date Received: 02/29/16 14:30

Lab Sample ID: 300-2426-A-19 MS

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		3230	03/01/16 12:20	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		3231	03/01/16 12:20	CPM	TAL RCH

Laboratory References:

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



Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
SDG: WC0868

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: S16-002

TestAmerica Job ID: 300-2425-1
 SDG: WC0868

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-2425-1	B344C4	Water	02/29/16 07:45	02/29/16 14:30
300-2425-2	B344C8	Water	02/29/16 07:45	02/29/16 14:30
300-2425-3	B344D2	Water	02/29/16 09:00	02/29/16 14:30
300-2425-4	B344D4	Water	02/29/16 09:00	02/29/16 14:30
300-2425-5	B344F1	Water	02/29/16 09:10	02/29/16 14:30
300-2425-6	B344F2	Water	02/29/16 09:10	02/29/16 14:30
300-2425-7	B34468	Water	02/29/16 10:40	02/29/16 14:30
300-2425-8	B34466	Water	02/29/16 10:40	02/29/16 14:30
300-2425-9	B344C9	Water	02/29/16 10:05	02/29/16 14:30
300-2425-10	B344C5	Water	02/29/16 10:05	02/29/16 14:30
300-2425-11	B344B2	Water	02/29/16 09:47	02/29/16 14:30
300-2425-12	B34499	Water	02/29/16 09:47	02/29/16 14:30
300-2425-13	B344C2	Water	02/29/16 07:45	02/29/16 14:30
300-2425-14	B344C3	Water	02/29/16 10:05	02/29/16 14:30
300-2425-15	B34465	Water	02/29/16 10:40	02/29/16 14:30

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-2425-1

SDG Number: WC0868

Login Number: 2425**List Number: 1****Creator: Bock, Julie A****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 (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.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	