

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: 300-1485-1
TestAmerica Sample Delivery Group: WC0586
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:
12/7/2015 11:42:11 AM
Steven Campbell, Quality Assurance Assistant
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Designee for
Whitney Ritari, Project Manager I
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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.



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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
B	Estimated result. Result is less than the RL, but greater than MDL
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)

Job ID: 300-1485-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-1485-1**

Comments

No additional comments.

Receipt

The samples were received on 11/12/2015 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

HPLC/IC

Method 300.0: The matrix spike (MS) recoveries for analytical batch 300-1967 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

Method 7196A: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: B335W9 (300-1485-1), B335X3 (300-1485-2), B335L3 (300-1485-3), B335L5 (300-1485-4), B33638 (300-1485-5), B33640 (300-1485-6), B335H5 (300-1485-7), B335H7 (300-1485-8), B335T2 (300-1485-9), B335T4 (300-1485-10), B33511 (300-1485-13) and B33509 (300-1485-14). For more information refer to SIR attached to report.

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



CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

S16-011-219

Page 1 of 1

Collector J.R. Aguilar/CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650
SAF No. S16-011	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071
Project Title SURV, NOVEMBER 2015	Logbook No. HNF-N-506 \$0 / 25	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		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		

Sample No.	Filter	* Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B335W9	N	11-11-15	1336	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B335X3	Y	11-11-15	1336	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C



300-1485 COC

41485
W0556

December 07 2015

Relinquished By J.R. Aguilar/CHPRC	Print 	Sign	Date/Time NOV 11 2015 1500	Received By SSU # 1	Print 	Sign	Date/Time NOV 11 2015 1500	Matrix * S = Soil SB = 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 SSU-1	Print 	Sign	Date/Time NOV 12 2015 0600	Received By M.A. White/mahd	Print 	Sign	Date/Time NOV 12 2015 0600	
Relinquished By M.A. White/mahd	Print 	Sign	Date/Time NOV 12 2015 0955	Received By J. Fitesz, TABL	Print 	Sign	Date/Time NOV 12 2015 0955	
Relinquished By SSU-1	Print 	Sign	Date/Time NOV 12 2015 0955	Received By J. Fitesz, TABL	Print 	Sign	Date/Time NOV 12 2015 0955	

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. #

S16-011-193

Page 1 of 1

Collector	JR. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 60 / 25	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			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
B335L3	N	W	11-11-15	1312	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B335L5	Y	W	11-11-15	1312	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
W0586

December 07 2015

Requisitioned By	JR. Aguilar/CHPRC	Print	Sign	Date/Time	NOV 11 2015 1500	Received By	SSU #1	Print	Sign	Date/Time	NOV 11 2015 1500	Matrix *
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0800	Received By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0800	S = Soil
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	SE = Sediment
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	SO = Solid
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	SL = Sludge
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	W = Water
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	O = Oil
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	A = Air
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	DS = Drum Solids
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	DL = Drum Liquids
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	T = Tissue
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	WT = Wipe
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	L = Liquid
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	V = Vegetation
Requisitioned By	M.A. White	Print	Sign	Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015 0955	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. #

S16-011-238

Page 1 of 1

Collector	J.R. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 \$0 / 25	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	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			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
B33638	N	W	11-11-15	1246	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B33640	Y	W	11-11-15	1246	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
WC0506

December 07 2015

Relinquished By	J.R. Aguilar/CHPRC	Print	Sign	Date/Time	NOV 11 2015	1500	Received By	SSU #1	Print	Sign	Date/Time	NOV 11 2015	1500	Matrix *
Relinquished By	SSU-1			Date/Time	NOV 12 2015	0800	Received By	M.A. White			Date/Time	NOV 12 2015	0800	S = Soil
Relinquished By	M.A. White			Date/Time	NOV 12 2015	0955	Received By	J. Hiesz, TARL			Date/Time	NOV 12 2015	0955	SE = Sediment
Relinquished By	CHPRC			Date/Time	NOV 12 2015	0955	Received By				Date/Time			SO = Solid
Relinquished By				Date/Time			Received By				Date/Time			SL = Sludge
Relinquished By				Date/Time			Received By				Date/Time			W = Water
Relinquished By				Date/Time			Received By				Date/Time			O = Oil
Relinquished By				Date/Time			Received By				Date/Time			A = Air

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. #

S16-011-183

Page 1 of 1

Collector	S.W. Krueger/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2016	Logbook No.	HNF-N-506 <u>81 / 29</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:	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 438.1			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
B335H5	N		NOV 11 2015	1348	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B335H7	Y	W			1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
W0586

December 07 2015

Reinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Reinquished By			NOV 11 2015 1430	Received By			NOV 11 2015 1430	S = Soil
Reinquished By			NOV 12 2015 0800	Received By			NOV 12 2015 0800	SE = Sediment
Reinquished By			NOV 12 2015 0955	Received By			NOV 12 2015 0955	SO = Solid
				Received By				SL = Sludge
				Received By				W = Water
				Received By				O = Oil
				Received By				A = Air
				Received By				DS = Drum Solids
				Received By				DL = Drum Liquids
				Received By				T = Tissue
				Received By				WT = Wipe
				Received By				L = Liquid
				Received By				V = Vegetation
				Received By				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

CH2M/Hill Plateau Remediation Company

C.O.C. #

S16-011-209

Page 1 of 1

Collector	JR Aguiar/CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	S16-011	Sampling Origin	Hanford Site
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 80 / 25
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE
Protocol	SURV	Priority:	30 Days PRIORITY
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
B335T2	N	W	11-11-15	1300	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B335T4	Y	W	11-11-15	1300	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
W 6586

December 07, 2015

Relinquished By JR Aguiar/CHPRC Print Sign Date/Time NOV 11 2015 1500	Received By SSU #1 Print Sign Date/Time NOV 11 2015 1500
Relinquished By SSU-1 Date/Time NOV 12 2015 0800	Received By M.A. White CHPRC Date/Time NOV 12 2015 0800
Relinquished By M.A. White CHPRC Date/Time NOV 12 2015 0955	Received By J. Friesz, TARL Date/Time NOV 12 2015 0955

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. #
S16-011-224
Page 1 of 1

Collector	JR. Aguiar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV. NOVEMBER 2015	Logbook No.	HNF-N-506 50 / 25	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		
*** 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
B335Y9	Y	W	11-11-15	1408	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B335Y7	N	W	11-11-15	1408	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
W C0586

December 07 2015

Relinquished By	JR. Aguiar/CHPRC	Print	Sign	Date/Time	NOV 11 2015 1500	Received By	SSU #1	Print	Sign	Date/Time	NOV 11 2015 1500	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	SSU-1			Date/Time	NOV 12 2015 0800	Received By	M.A. White/CHPRC			Date/Time	NOV 12 2015 0800	
Relinquished By	M.A. White			Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL			Date/Time	NOV 12 2015 0955	

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. #

S16-011-142

Page 1 of 1

Collector	S.W. King/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURY. NOVEMBER 2016	Logbook No.	HNF-N-50681 / 29	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			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
B33511	Y		NOV 11 2015	1255	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B33509	N		W		1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1485
WC0586

December 07 2015

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	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
S.W. King/CHPRC			NOV 11 2015 1430	SSU-1			NOV 11 2015 1430	
Relinquished By			NOV 12 2015 0800	M.A. White/CHPRC			NOV 12 2015 0800	
M.A. White/CHPRC			NOV 12 2015 0955	J. Friesz, TARL			NOV 12 2015 0955	

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. #

S16-011-182

Page 1 of 1

Collector	S.W. King/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2016	Logbook No.	HNF-N-506 81/29	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			Hold Time		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis
B335H4	N	NOV 11 2015	1348	1x500-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02
					Holding Time
					48 Hours
					Preservative
					Cool <=6C

#1485
W 0586

December 07, 2015

Relinquished By	S.W. King/CHPRC	Print	<i>[Signature]</i>	Sign		Date/Time	NOV 11 2015 1430	Received By	SSU-1	Print		Sign		Date/Time	NOV 11 2015 1430	Matrix *
Relinquished By	SSU-1	Date/Time	NOV 12 2015 0800	Received By	M.A. White/CHPRC	Date/Time	NOV 12 2015 0800	Received By	M.A. White/CHPRC	Date/Time	NOV 12 2015 0800	Received By	J. Friesz/TARL	Date/Time	NOV 12 2015 0800	Matrix *
Relinquished By	CHPRC	Date/Time	NOV 12 2015 0955	Received By	J. Friesz/TARL	Date/Time	NOV 12 2015 0800	Received By	J. Friesz/TARL	Date/Time	NOV 12 2015 0800	Received By	J. Friesz/TARL	Date/Time	NOV 12 2015 0800	Matrix *

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. #

S16-011-365

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Collector	J.R. Aguilar/CH2RC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 50 / 25	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			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
B33BH7	N	W	11-11-15	1408	1x500-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	Cool <=6C

#1485
W 10586

December 07, 2015

Relinquished By	J.R. Aguilar/CH2RC	Print	Sign	Date/Time	NOV 11 2015 1500	Received By	SSU #1	Print	Sign	Date/Time	NOV 11 2015 1500	Matrix *
Relinquished By	SSU-1			Date/Time	NOV 12 2015 0800	Received By	M.A. White			Date/Time	NOV 12 2015 0800	S = Soil
Relinquished By	M.A. White			Date/Time	NOV 12 2015 0858	Received By	J. Friesz, TARL			Date/Time	NOV 12 2015 0858	SE = Sediment
Relinquished By				Date/Time		Received By				Date/Time		SO = Solid
Relinquished By				Date/Time		Received By				Date/Time		SL = Sludge
Relinquished By				Date/Time		Received By				Date/Time		W = Water
Relinquished By				Date/Time		Received By				Date/Time		O = Oil
Relinquished By				Date/Time		Received By				Date/Time		A = Air
Relinquished By				Date/Time		Received By				Date/Time		DS = Drum Solids
Relinquished By				Date/Time		Received By				Date/Time		DL = Drum Liquids
Relinquished By				Date/Time		Received By				Date/Time		T = Tissue
Relinquished By				Date/Time		Received By				Date/Time		WL = Wipe
Relinquished By				Date/Time		Received By				Date/Time		L = Liquid
Relinquished By				Date/Time		Received By				Date/Time		V = Vegetation
Relinquished By				Date/Time		Received By				Date/Time		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. #

S16-011-141

Page 1 of 1

Collector	S.W. King/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURY, NOVEMBER 2016	Logbook No.	HNF-N-506 <u>81/29</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		
			Total Activity/Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	Date	Time	No./Type Container	Sample Analysis
B36308	N	NOV 11 2015	1255	1x500-mL P	300.0 ANIONS_IC: COMMON
					Holding Time
					48 Hours
					Preservative
					Cool <=6C

H1485
WCO586

December 07 2015

Relinquished By	S.W. King/CHPRC	Print		Sign		Date/Time	NOV 11 2015 1430	Received By	SSU-1	Print		Sign		Date/Time	NOV 11 2015 1422	Matrix *
Relinquished By	SSU-1					Date/Time	NOV 12 2015 0800	Received By	M.A. White/CHPRC					Date/Time	NOV 12 2015 0800	S = Soil
Relinquished By	M.A. White/CHPRC					Date/Time	NOV 12 2015 0855	Received By	J. Friesz, TARL					Date/Time	NOV 12 2015 0855	SE = Sediment
Relinquished By						Date/Time		Received By						Date/Time		SO = Solid
						Date/Time								Date/Time		SL = Sludge
						Date/Time								Date/Time		W = Water
						Date/Time								Date/Time		O = Oil
						Date/Time								Date/Time		A = Air
						Date/Time								Date/Time		DS = Drum Solids
						Date/Time								Date/Time		DL = Drum Liquids
						Date/Time								Date/Time		T = Tissue
						Date/Time								Date/Time		WI = Wipe
						Date/Time								Date/Time		L = Liquid
						Date/Time								Date/Time		V = Vegetation
						Date/Time								Date/Time		X = Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)															
	Disposed By															



CH2M Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S16-011-367
Page 1 of 1

Collector	J.R. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 <u>50</u> / <u>25</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			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
B33BH9	N	W	11-11-15	1246	1x500-mL P	300.0_ANIONS_IC:COMMON	48 Hours	Cool <=6C

#1485
W C 586

December 07 2015

Relinquished By	J.R. Aguilar/CHPRC	Print		Sign	NOV 11 2015	Date/Time	1500	Received By	SSU #1	Print		Sign	NOV 11 2015	Date/Time	1500	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	SSU-1	Print		Sign	NOV 12 2015	Date/Time	0800	Received By	M.A. White	Print		Sign	NOV 12 2015	Date/Time	0800			
Relinquished By	M.A. White	Print		Sign	NOV 12 2015	Date/Time	0855	Received By	J. Friesz, TARL	Print		Sign	NOV 12 2015	Date/Time	0855			

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. #

S16-011-360

Page 1 of 1

Collector	J.R. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAR No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506_80 / 25	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		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					
Sample No.	Filter	*	Date	Time	No/Type Container
B33BH2	N	W	11-11-15	1336	1x500-mL P
Sample Analysis			Holding Time		
300.0_ANIONS_IC: COMMON			48 Hours		
Preservative			Cool <=6C		

#1485
W 6586

December 07 2015

Relinquished By	J.R. Aguilar/CHPRC	Print	Sign	Date/Time	NOV 11 2015 1500	Received By	SSU A	Print	Sign	Date/Time	NOV 11 2015 1500
Relinquished By	SSU-1			Date/Time	NOV 12 2015 0800	Received By	M.A. White/CHPRC			Date/Time	NOV 12 2015 0800
Relinquished By	M.A. White/CHPRC			Date/Time	NOV 12 2015 0955	Received By	J. Friesz, TARL			Date/Time	NOV 12 2015 0955
Relinquished By				Date/Time		Received By				Date/Time	

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

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

S16-011-192

Page 1 of 1

Collector	J.R. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV. NOVEMBER 2015	Logbook No.	HNF-N-506 <u>50 / 25</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			Hold Time		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No./Type Container
B335L1	N	W	11-11-15	1312	1x500-mL P
			Sample Analysis		300.0 ANIONS, IC: COMMON
			Holding Time		48 Hours
			Preservative		Cool <=6C

Relinquished By	J.R. Aguilar/CHPRC	Print	Sign	Date/Time	NOV 11 2015	1500	Received By	SSU #1	Print	Sign	Date/Time	NOV 11 2015	1500	Matrix *
Relinquished By	M.A. White/CHPRC	Print	Sign	Date/Time	NOV 12 2015	0800	Received By	M.A. White/CHPRC	Print	Sign	Date/Time	NOV 12 2015	0800	S = Soil
Relinquished By	M.A. White/CHPRC	Print	Sign	Date/Time	NOV 12 2015	0955	Received By	J. Friesz, TARL	Print	Sign	Date/Time	NOV 12 2015	0955	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

#1485
W C0586

December 07 2015

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

CH2M/Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
S16-011-358
Page 1 of 1

Collector	J.R. Aguilar/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, NOVEMBER 2015	Logbook No.	HNF-N-506 50 / 25	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			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
B33BH0	N	W	11-11-15	1300	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

#1485
WC0586

Relinquished By	J.R. Aguilar/CHPRC	Print	Sign	NOV 11 2015	Date/Time	1500	Received By	SSU # 1	Print	Sign	NOV 11 2015	Date/Time	1500	Matrix *
Relinquished By	SSU-1			NOV 12 2015	Date/Time	0800	Received By	M.A. White/CHPRC			NOV 12 2015	Date/Time	0800	S = Soil
Relinquished By	M.A. White/CHPRC			NOV 12 2015	Date/Time	0955	Received By	J. Friesz, TARL			NOV 12 2015	Date/Time	0955	SE = Sediment
Relinquished By							Received By							SO = Solid
Relinquished By							Received By							SL = Sludge
Relinquished By							Received By							W = Water
Relinquished By							Received By							O = Oil
Relinquished By							Received By							A = Air

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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December 07 2015



SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-108
REV NUM	0
DATE INITIATED	11/20/2015



SAMPLE EVENT INFORMATION

SAF NUM(S) S16-011
OPERABLE UNIT(S)
PROJECT(S) SURV16
SAMPLE EVENT TITLE(S) SURV16
LABORATORY TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES 12
SAMPLE NUMBERS B33509, B33511, B335H5, B335H7, B335L3, B335L5, B335T2, B335T4, B335W9, B335X3, B33638, B33640
SAMPLE MATRIX WATER
COLLECTION DATE 11/11/2015 - 11/11/2015
SDG NUM WC0586

ISSUE BACKGROUND

CLASS Field Sampling Issue
TYPE Analysis Hold Time Exceeded
DESCRIPTION The samples listed above were received with less than half the remaining on the hold time. As such the laboratory had insufficient time remaining to perform the analysis within analytical hold time.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION: Initiate SIR, report results and include hold time comment in the case narrative
JUSTIFICATION ACCEPTED RESOLUTION: Accept the proposed resolution.

SUBMITTED BY: Steven Campbell/TARL DATE: 11/20/15
 ACCEPTED BY: Karen Waters-Husted/CHPRC DATE: 11/23/15

December 07, 2015

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill ChemicalTestAmerica Job ID: 300-1485-1
SDG: WC0586

Client Sample ID: B335W9

Lab Sample ID: 300-1485-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.076		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335X3

Lab Sample ID: 300-1485-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.074		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335L3

Lab Sample ID: 300-1485-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.011		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335L5

Lab Sample ID: 300-1485-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.011		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B33638

Lab Sample ID: 300-1485-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0077		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B33640

Lab Sample ID: 300-1485-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0079		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335H5

Lab Sample ID: 300-1485-7

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

Client Sample ID: B335H7

Lab Sample ID: 300-1485-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0038	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335T2

Lab Sample ID: 300-1485-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.010		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335T4

Lab Sample ID: 300-1485-10

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: B335Y9

Lab Sample ID: 300-1485-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)									

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335Y9 (Continued)**Lab Sample ID: 300-1485-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0062		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B335Y7**Lab Sample ID: 300-1485-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0065		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B33511**Lab Sample ID: 300-1485-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0022	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B33509**Lab Sample ID: 300-1485-14**

No Detections.

Client Sample ID: B335H4**Lab Sample ID: 300-1485-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.6	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.14	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	190	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

Client Sample ID: B33BH7**Lab Sample ID: 300-1485-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	0.91	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	32	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B33508**Lab Sample ID: 300-1485-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.8	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.14	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	190	D	1.3	0.63	mg/L	5		300.0	Total/NA

Client Sample ID: B33BH9**Lab Sample ID: 300-1485-18**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	4.4	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.17	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	110	D	1.3	0.63	mg/L	5		300.0	Total/NA

Client Sample ID: B33BH2**Lab Sample ID: 300-1485-19**

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B33BH2 (Continued)**Lab Sample ID: 300-1485-19**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.1	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.25	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	24	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B335L1**Lab Sample ID: 300-1485-20**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	1.3	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.16	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	26	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B33BH0**Lab Sample ID: 300-1485-21**

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	4.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.31	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	74	D	0.50	0.25	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: CH2M Hill Chemical

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335W9
Date Collected: 11/11/15 13:36
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-1
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.076		0.0040	0.0015	mg/L			11/12/15 13:46	1

Client Sample ID: B335X3
Date Collected: 11/11/15 13:36
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-2
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.074		0.0040	0.0015	mg/L			11/12/15 13:46	1

Client Sample ID: B335L3
Date Collected: 11/11/15 13:12
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-3
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.011		0.0040	0.0015	mg/L			11/12/15 13:47	1

Client Sample ID: B335L5
Date Collected: 11/11/15 13:12
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-4
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.011		0.0040	0.0015	mg/L			11/12/15 13:47	1

Client Sample ID: B33638
Date Collected: 11/11/15 12:46
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-5
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0077		0.0040	0.0015	mg/L			11/12/15 13:47	1

Client Sample ID: B33640
Date Collected: 11/11/15 12:46
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-6
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0079		0.0040	0.0015	mg/L			11/12/15 13:48	1

Client Sample ID: B335H5
Date Collected: 11/11/15 13:48
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-7
Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0040		0.0040	0.0015	mg/L			11/12/15 13:51	1

Client Sample Results

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

TestAmerica Job ID: 300-1485-1
SDG: WC0586

Client Sample ID: B335H7

Date Collected: 11/11/15 13:48

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0038	B	0.0040	0.0015	mg/L	-		11/12/15 13:51	1

Client Sample ID: B335T2

Date Collected: 11/11/15 13:00

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-9

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.010		0.0040	0.0015	mg/L	-		11/12/15 13:52	1

Client Sample ID: B335T4

Date Collected: 11/11/15 13:00

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-10

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	-		11/12/15 13:52	1

Client Sample ID: B335Y9

Date Collected: 11/11/15 14:08

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-11

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0062		0.0040	0.0015	mg/L	-		11/12/15 13:52	1

Client Sample ID: B335Y7

Date Collected: 11/11/15 14:08

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-12

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0065		0.0040	0.0015	mg/L	-		11/12/15 13:52	1

Client Sample ID: B33511

Date Collected: 11/11/15 12:55

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-13

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0022	B	0.0040	0.0015	mg/L	-		11/12/15 13:53	1

Client Sample ID: B33509

Date Collected: 11/11/15 12:55

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-14

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	-		11/12/15 13:55	1

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335H4

Date Collected: 11/11/15 13:48

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16	D	0.40	0.20	mg/L			11/12/15 14:44	2
Nitrate as N	5.6	D	0.056	0.028	mg/L			11/12/15 14:44	2
Fluoride	0.14	D	0.10	0.050	mg/L			11/12/15 14:44	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 14:44	2
Orthophosphate as P	0.082	U N	0.16	0.082	mg/L			11/12/15 14:44	2
Sulfate	190	D	1.3	0.63	mg/L			11/12/15 18:14	5
Bromide	0.22	B D	0.25	0.13	mg/L			11/12/15 14:44	2

Client Sample ID: B33BH7

Date Collected: 11/11/15 14:08

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8	D	0.40	0.20	mg/L			11/12/15 15:29	2
Nitrate as N	0.91	D	0.056	0.028	mg/L			11/12/15 15:29	2
Fluoride	0.19	D	0.10	0.050	mg/L			11/12/15 15:29	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 15:29	2
Orthophosphate as P	0.082	U N	0.16	0.082	mg/L			11/12/15 15:29	2
Sulfate	32	D	0.50	0.25	mg/L			11/12/15 15:29	2
Bromide	0.13	U	0.25	0.13	mg/L			11/12/15 15:29	2

Client Sample ID: B33508

Date Collected: 11/11/15 12:55

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-17

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16	D	0.40	0.20	mg/L			11/12/15 15:44	2
Nitrate as N	5.8	D	0.056	0.028	mg/L			11/12/15 15:44	2
Fluoride	0.14	D	0.10	0.050	mg/L			11/12/15 15:44	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 15:44	2
Sulfate	190	D	1.3	0.63	mg/L			11/12/15 18:59	5

Client Sample ID: B33BH9

Date Collected: 11/11/15 12:46

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-18

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11	D	0.40	0.20	mg/L			11/12/15 15:59	2
Nitrate as N	4.4	D	0.056	0.028	mg/L			11/12/15 15:59	2
Fluoride	0.17	D	0.10	0.050	mg/L			11/12/15 15:59	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 15:59	2
Sulfate	110	D	1.3	0.63	mg/L			11/12/15 19:14	5

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

TestAmerica Job ID: 300-1485-1
SDG: WC0586

Client Sample ID: B33BH2

Date Collected: 11/11/15 13:36

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-19

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4	D	0.40	0.20	mg/L			11/12/15 16:14	2
Nitrate as N	2.1	D	0.056	0.028	mg/L			11/12/15 16:14	2
Fluoride	0.25	D	0.10	0.050	mg/L			11/12/15 16:14	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 16:14	2
Sulfate	24	D	0.50	0.25	mg/L			11/12/15 16:14	2

Client Sample ID: B335L1

Date Collected: 11/11/15 13:12

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-20

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6	D	0.40	0.20	mg/L			11/12/15 16:29	2
Nitrate as N	1.3	D	0.056	0.028	mg/L			11/12/15 16:29	2
Fluoride	0.16	D	0.10	0.050	mg/L			11/12/15 16:29	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 16:29	2
Sulfate	26	D	0.50	0.25	mg/L			11/12/15 16:29	2

Client Sample ID: B33BH0

Date Collected: 11/11/15 13:00

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-21

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			11/12/15 17:14	2
Nitrate as N	4.2	D	0.056	0.028	mg/L			11/12/15 17:14	2
Fluoride	0.31	D	0.10	0.050	mg/L			11/12/15 17:14	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 17:14	2
Sulfate	74	D	0.50	0.25	mg/L			11/12/15 17:14	2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1967/13
 Matrix: Water
 Analysis Batch: 1967

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			11/12/15 14:14	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			11/12/15 14:14	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			11/12/15 14:14	1

Lab Sample ID: LCS 300-1967/14
 Matrix: Water
 Analysis Batch: 1967

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	2.38		mg/L		105	80 - 120
Nitrite as N	3.04	3.25		mg/L		107	80 - 120
Orthophosphate as P	6.53	6.81		mg/L		104	80 - 120

Lab Sample ID: 300-1485-15 MS
 Matrix: Water
 Analysis Batch: 1967

Client Sample ID: B335H4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.6	D	0.452	5.99	D	mg/L		95	75 - 125
Nitrite as N	0.038	U	0.609	0.579	D	mg/L		95	75 - 125
Orthophosphate as P	0.082	U N	1.31	0.472	D N	mg/L		36	75 - 125

Lab Sample ID: 300-1485-15 DU
 Matrix: Water
 Analysis Batch: 1967

Client Sample ID: B335H4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	5.6	D	5.53	D	mg/L		0.4	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 300-1968/13
 Matrix: Water
 Analysis Batch: 1968

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			11/12/15 14:14	1
Fluoride	0.025	U	0.050	0.025	mg/L			11/12/15 14:14	1
Sulfate	0.13	U	0.25	0.13	mg/L			11/12/15 14:14	1
Bromide	0.063	U	0.13	0.063	mg/L			11/12/15 14:14	1

Lab Sample ID: LCS 300-1968/14
 Matrix: Water
 Analysis Batch: 1968

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	16.8		mg/L		105	80 - 120
Fluoride	4.00	4.23		mg/L		106	80 - 120
Sulfate	20.0	21.0		mg/L		105	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 300-1968/14
Matrix: Water
Analysis Batch: 1968

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	10.5		mg/L		105	80 - 120

Lab Sample ID: 300-1485-15 MS
Matrix: Water
Analysis Batch: 1968

Client Sample ID: B335H4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16	D	3.20	19.3	D	mg/L		102	75 - 125
Fluoride	0.14	D	0.800	0.907	D	mg/L		95	75 - 125
Bromide	0.22	B D	2.00	2.03	D	mg/L		90	75 - 125

Lab Sample ID: 300-1485-15 MS
Matrix: Water
Analysis Batch: 1968

Client Sample ID: B335H4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	190	D	10.0	201	D	mg/L		85	75 - 125

Lab Sample ID: 300-1485-15 DU
Matrix: Water
Analysis Batch: 1968

Client Sample ID: B335H4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	16	D	15.9	D	mg/L		0.5	20
Fluoride	0.14	D	0.142	D	mg/L		0.9	20
Bromide	0.22	B D	0.219	B D	mg/L		0.3	20

Lab Sample ID: 300-1485-15 DU
Matrix: Water
Analysis Batch: 1968

Client Sample ID: B335H4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	190	D	192	D	mg/L		0.3	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1972/3
Matrix: Water
Analysis Batch: 1972

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			11/12/15 13:43	1

Lab Sample ID: LCS 300-1972/4
Matrix: Water
Analysis Batch: 1972

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	0.252		mg/L		101	80 - 120

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-1485-1 MS
 Matrix: Water
 Analysis Batch: 1972

Client Sample ID: B335W9
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.076		0.0500	0.124		mg/L		97	85 - 115

Lab Sample ID: 300-1485-1 DU
 Matrix: Water
 Analysis Batch: 1972

Client Sample ID: B335W9
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.076		0.0770		mg/L		2	20



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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

HPLC/IC

Analysis Batch: 1967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1485-15	B335H4	Total/NA	Water	300.0	
300-1485-15 DU	B335H4	Total/NA	Water	300.0	
300-1485-15 MS	B335H4	Total/NA	Water	300.0	
300-1485-16	B33BH7	Total/NA	Water	300.0	
300-1485-17	B33508	Total/NA	Water	300.0	
300-1485-18	B33BH9	Total/NA	Water	300.0	
300-1485-19	B33BH2	Total/NA	Water	300.0	
300-1485-20	B335L1	Total/NA	Water	300.0	
300-1485-21	B33BH0	Total/NA	Water	300.0	
LCS 300-1967/14	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1967/13	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1485-15	B335H4	Total/NA	Water	300.0	
300-1485-15	B335H4	Total/NA	Water	300.0	
300-1485-15 DU	B335H4	Total/NA	Water	300.0	
300-1485-15 DU	B335H4	Total/NA	Water	300.0	
300-1485-15 MS	B335H4	Total/NA	Water	300.0	
300-1485-15 MS	B335H4	Total/NA	Water	300.0	
300-1485-16	B33BH7	Total/NA	Water	300.0	
300-1485-17	B33508	Total/NA	Water	300.0	
300-1485-17	B33508	Total/NA	Water	300.0	
300-1485-18	B33BH9	Total/NA	Water	300.0	
300-1485-18	B33BH9	Total/NA	Water	300.0	
300-1485-19	B33BH2	Total/NA	Water	300.0	
300-1485-20	B335L1	Total/NA	Water	300.0	
300-1485-21	B33BH0	Total/NA	Water	300.0	
LCS 300-1968/14	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1968/13	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1485-1	B335W9	Total/NA	Water	7196A	
300-1485-1 DU	B335W9	Total/NA	Water	7196A	
300-1485-1 MS	B335W9	Total/NA	Water	7196A	
300-1485-2	B335X3	Total/NA	Water	7196A	
300-1485-3	B335L3	Total/NA	Water	7196A	
300-1485-4	B335L5	Total/NA	Water	7196A	
300-1485-5	B33638	Total/NA	Water	7196A	
300-1485-6	B33640	Total/NA	Water	7196A	
300-1485-7	B335H5	Total/NA	Water	7196A	
300-1485-8	B335H7	Total/NA	Water	7196A	
300-1485-9	B335T2	Total/NA	Water	7196A	
300-1485-10	B335T4	Total/NA	Water	7196A	
300-1485-11	B335Y9	Total/NA	Water	7196A	
300-1485-12	B335Y7	Total/NA	Water	7196A	
300-1485-13	B33511	Total/NA	Water	7196A	

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

TestAmerica Job ID: 300-1485-1
SDG: WC0586

General Chemistry (Continued)

Analysis Batch: 1972 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1485-14	B33509	Total/NA	Water	7196A	
LCS 300-1972/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1972/3	Method Blank	Total/NA	Water	7196A	

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

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335W9

Date Collected: 11/11/15 13:36

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-1

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			1972	11/12/15 13:46	AMC	TAL RCH

Client Sample ID: B335X3

Date Collected: 11/11/15 13:36

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-2

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			1972	11/12/15 13:46	AMC	TAL RCH

Client Sample ID: B335L3

Date Collected: 11/11/15 13:12

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-3

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			1972	11/12/15 13:47	AMC	TAL RCH

Client Sample ID: B335L5

Date Collected: 11/11/15 13:12

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-4

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			1972	11/12/15 13:47	AMC	TAL RCH

Client Sample ID: B33638

Date Collected: 11/11/15 12:46

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-5

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			1972	11/12/15 13:47	AMC	TAL RCH

Client Sample ID: B33640

Date Collected: 11/11/15 12:46

Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-6

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			1972	11/12/15 13:48	AMC	TAL RCH

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335H5

Date Collected: 11/11/15 13:48
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-7

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			1972	11/12/15 13:51	AMC	TAL RCH

Client Sample ID: B335H7

Date Collected: 11/11/15 13:48
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-8

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			1972	11/12/15 13:51	AMC	TAL RCH

Client Sample ID: B335T2

Date Collected: 11/11/15 13:00
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-9

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			1972	11/12/15 13:52	AMC	TAL RCH

Client Sample ID: B335T4

Date Collected: 11/11/15 13:00
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-10

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			1972	11/12/15 13:52	AMC	TAL RCH

Client Sample ID: B335Y9

Date Collected: 11/11/15 14:08
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-11

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			1972	11/12/15 13:52	AMC	TAL RCH

Client Sample ID: B335Y7

Date Collected: 11/11/15 14:08
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-12

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			1972	11/12/15 13:52	AMC	TAL RCH

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B33511

Date Collected: 11/11/15 12:55
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-13

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	7196A		1			1972	11/12/15 13:53	AMC	TAL RCH

Client Sample ID: B33509

Date Collected: 11/11/15 12:55
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-14

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	7196A		1			1972	11/12/15 13:55	AMC	TAL RCH

Client Sample ID: B335H4

Date Collected: 11/11/15 13:48
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-15

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		1967	11/12/15 14:44	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 14:44	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1968	11/12/15 18:14	CPM	TAL RCH

Client Sample ID: B33BH7

Date Collected: 11/11/15 14:08
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-16

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		1967	11/12/15 15:29	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 15:29	CPM	TAL RCH

Client Sample ID: B33508

Date Collected: 11/11/15 12:55
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-17

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		1967	11/12/15 15:44	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 15:44	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1968	11/12/15 18:59	CPM	TAL RCH

Client Sample ID: B33BH9

Date Collected: 11/11/15 12:46
 Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-18

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		1967	11/12/15 15:59	CPM	TAL RCH

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B33BH9

Lab Sample ID: 300-1485-18

Date Collected: 11/11/15 12:46

Matrix: Water

Date Received: 11/12/15 09:55

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		1968	11/12/15 15:59	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1968	11/12/15 19:14	CPM	TAL RCH

Client Sample ID: B33BH2

Lab Sample ID: 300-1485-19

Date Collected: 11/11/15 13:36

Matrix: Water

Date Received: 11/12/15 09:55

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		1967	11/12/15 16:14	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 16:14	CPM	TAL RCH

Client Sample ID: B335L1

Lab Sample ID: 300-1485-20

Date Collected: 11/11/15 13:12

Matrix: Water

Date Received: 11/12/15 09:55

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		1967	11/12/15 16:29	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 16:29	CPM	TAL RCH

Client Sample ID: B33BH0

Lab Sample ID: 300-1485-21

Date Collected: 11/11/15 13:00

Matrix: Water

Date Received: 11/12/15 09:55

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		1967	11/12/15 17:14	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 17:14	CPM	TAL RCH

Client Sample ID: B335W9

Lab Sample ID: 300-1485-1 DU

Date Collected: 11/11/15 13:36

Matrix: Water

Date Received: 11/12/15 09:55

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			1972	11/12/15 13:46	AMC	TAL RCH

Client Sample ID: B335H4

Lab Sample ID: 300-1485-15 DU

Date Collected: 11/11/15 13:48

Matrix: Water

Date Received: 11/12/15 09:55

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		1967	11/12/15 15:14	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 15:14	CPM	TAL RCH

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: B335H4

Lab Sample ID: 300-1485-15 DU

Date Collected: 11/11/15 13:48

Matrix: Water

Date Received: 11/12/15 09:55

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		5	10 mL		1968	11/12/15 18:44	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1967/14

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		1967	11/12/15 14:29	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1968/14

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		1968	11/12/15 14:29	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1972/4

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			1972	11/12/15 13:43	AMC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1967/13

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		1967	11/12/15 14:14	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1968/13

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		1968	11/12/15 14:14	CPM	TAL RCH

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

TestAmerica Job ID: 300-1485-1
 SDG: WC0586

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1972/3

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			1972	11/12/15 13:43	AMC	TAL RCH

Client Sample ID: B335W9

Lab Sample ID: 300-1485-1 MS

Date Collected: 11/11/15 13:36

Matrix: Water

Date Received: 11/12/15 09:55

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	1972	11/12/15 13:43	AMC	TAL RCH

Client Sample ID: B335H4

Lab Sample ID: 300-1485-15 MS

Date Collected: 11/11/15 13:48

Matrix: Water

Date Received: 11/12/15 09:55

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		1967	11/12/15 14:59	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1968	11/12/15 14:59	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1968	11/12/15 18:29	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: 300-1485-1
SDG: WC0586

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: 300-1485-1
 SDG: WC0586

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1485-1	B335W9	Water	11/11/15 13:36	11/12/15 09:55
300-1485-2	B335X3	Water	11/11/15 13:36	11/12/15 09:55
300-1485-3	B335L3	Water	11/11/15 13:12	11/12/15 09:55
300-1485-4	B335L5	Water	11/11/15 13:12	11/12/15 09:55
300-1485-5	B33638	Water	11/11/15 12:46	11/12/15 09:55
300-1485-6	B33640	Water	11/11/15 12:46	11/12/15 09:55
300-1485-7	B335H5	Water	11/11/15 13:48	11/12/15 09:55
300-1485-8	B335H7	Water	11/11/15 13:48	11/12/15 09:55
300-1485-9	B335T2	Water	11/11/15 13:00	11/12/15 09:55
300-1485-10	B335T4	Water	11/11/15 13:00	11/12/15 09:55
300-1485-11	B335Y9	Water	11/11/15 14:08	11/12/15 09:55
300-1485-12	B335Y7	Water	11/11/15 14:08	11/12/15 09:55
300-1485-13	B33511	Water	11/11/15 12:55	11/12/15 09:55
300-1485-14	B33509	Water	11/11/15 12:55	11/12/15 09:55
300-1485-15	B335H4	Water	11/11/15 13:48	11/12/15 09:55
300-1485-16	B33BH7	Water	11/11/15 14:08	11/12/15 09:55
300-1485-17	B33508	Water	11/11/15 12:55	11/12/15 09:55
300-1485-18	B33BH9	Water	11/11/15 12:46	11/12/15 09:55
300-1485-19	B33BH2	Water	11/11/15 13:36	11/12/15 09:55
300-1485-20	B335L1	Water	11/11/15 13:12	11/12/15 09:55
300-1485-21	B33BH0	Water	11/11/15 13:00	11/12/15 09:55



Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1485-1
SDG Number: WC0586

Login Number: 1485
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	

