

July 18, 2016

# 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: 300-3348-1

TestAmerica Sample Delivery Group: WC1197

Client Project/Site: I16-025

For:

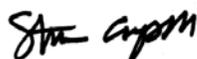
CH2M Hill Plateau Remediation Company

PO BOX 1600

Mail Stop R3-50

Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:

7/18/2016 9:51:50 AM

Steven Campbell, Project Mgmt. Assistant

[steven.campbell@testamericainc.com](mailto:steven.campbell@testamericainc.com)

Designee for

Whitney Ritari, Project Manager I

(509)375-3131 ext164

[whitney.ritari@testamericainc.com](mailto:whitney.ritari@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 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 less 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.

### 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)

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

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**Job ID: 300-3348-1**

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**Laboratory: TestAmerica Richland**

**Narrative**

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**Job Narrative**  
**300-3348-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 6/24/2016 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 8.6° 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.

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**CH2MHill Plateau Remediation Company**

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #  
**116-025-020**  
Page 1 of 1

Collector Dave Floyd CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650
SAF No. 116-025	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071
Project Title 100KR4, JUNE 2016	Logbook No. HNF-N-506-82/83	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
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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		
<b>SPECIAL INSTRUCTIONS</b> N/A Special Handling: N/A		
<b>Hold Time</b> 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
B35893	N	WJUN 24 2016	1030	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35898	Y	WJUN 24 2016	1030	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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WJUN 24 2016



Relinquished By Dave Floyd CHPRC	Print Sign	Date/Time JUN 24 2016	Received By Linda Wain CHPRC	Print Sign	Date/Time JUN 24 2016	Matrix *
Relinquished By WJUN 24 2016	CHPRC	1418	Received By J. Bock, TARL	WJUN 24 2016	1418	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



**CH2M Hill Plateau Remediation Company**

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # **116-025-018**  
Page 1 of 1

Collector	Dave Floyd CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	116-025	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	100KR4, JUNE 2016	Logbook No.	HNF-N-506 <b>82/83</b>	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
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>			<b>PRIORITY</b>		
*** 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 N/A Special Handling: N/A		
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35892	N	W	JUN 24 2016	0750	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35897	Y	W	" "	0750	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

July 18, 2016

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Relinquished By	Dave Floyd CHPRC	Print	Sign	Date/Time	1418	Received By	CHPRC	Date/Time	1418	Matrix *
Relinquished By	(Signature)			JUN 24 2016		Received By	(Signature)	JUN 24 2016		S = Soil
Relinquished By	(Signature)			6/24/16 1500		Received By	J. Bock, TABL	6/24/16 1500		SE = Sediment
Relinquished By	(Signature)					Received By				SO = Solid
Relinquished By	(Signature)					Received By				SL = Sludge
Relinquished By	(Signature)					Received By				W = Water
Relinquished By	(Signature)					Received By				O = Oil
Relinquished By	(Signature)					Received By				A = Air
Relinquished By	(Signature)					Received By				DS = Drum Solids
Relinquished By	(Signature)					Received By				DL = Drum Liquids
Relinquished By	(Signature)					Received By				T = Tissue
Relinquished By	(Signature)					Received By				WI = Wipe
Relinquished By	(Signature)					Received By				L = Liquid
Relinquished By	(Signature)					Received By				V = Vegetation
Relinquished By	(Signature)					Received By				X = Other

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



**CH2MHill Plateau Remediation Company**

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # **I16-025-017**  
Page 1 of 1

Collector Dane Floyd CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650
SAF No. I16-025	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071
Project Title 100KR4, JUNE 2016	Logbook No. HNF-N-506 <u>82/83</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
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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 N/A Special Handling: N/A
Sample No. B35890	Filter N	Date JUN 24 2016
	Time 0750	No./Type Container 1x500-mL P
		Sample Analysis 300.0_ANIONS_IC: COMMON
		Holding Time 48 Hours
		Preservative Cool <=6C
		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

July 18, 2016

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Relinquished By Dane Floyd CHPRC	Print [Signature]	Sign JUN 24 2016	Date/Time 1418	Received By Dane Floyd CHPRC	Print [Signature]	Sign JUN 24 2016	Date/Time 1418	Matrix *
Relinquished By Lesly WRA11	Print [Signature]	Sign CHPRC	Date/Time 1500	Received By J. Beck, TARI	Print [Signature]	Sign CHPRC	Date/Time 1500	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	

**CH2M Hill Plateau Remediation Company**

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #

**116-025-019**

Page 1 of 1

Collector <b>Dave Floyd</b> CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 509-376-4650
SAF No. 116-025	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071
Project Title 100KR4, JUNE 2016	Logbook No. HNF-N-506 <i>821/823</i>	Ice Chest No. N/A
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A
Protocol CERCLA	Priority: 30 Days	Offsite Property No. N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample No. B35891	Filter N	Date JUN 24 2016
	* W	Time 1030
	No/Type Container 1x500-mL P	Sample Analysis 300.0_ANIONS_IC: COMMON
	Holding Time 48 Hours	Preservative Cool <=6C

July 18, 2016

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Relinquished By <b>Dave Floyd</b> CHPRC	Print [Signature]	Sign [Signature]	Date/Time JUN 24 2016 1418	Received By <b>Lesly Wald</b> CHPRC	Print [Signature]	Sign [Signature]	Date/Time JUN 24 2016 1418	Matrix *
Relinquished By <i>Lesly Wald</i>			Date/Time 1500	Received By <i>J. Bock, TARL</i>			Date/Time 1500	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time

# July 18, 2016 Detection Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

## Client Sample ID: B35893

## Lab Sample ID: 300-3348-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

## Client Sample ID: B35898

## Lab Sample ID: 300-3348-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

## Client Sample ID: B35892

## Lab Sample ID: 300-3348-3

No Detections.

## Client Sample ID: B35897

## Lab Sample ID: 300-3348-4

No Detections.

## Client Sample ID: B35890

## Lab Sample ID: 300-3348-5

No Detections.

## Client Sample ID: B35891

## Lab Sample ID: 300-3348-6

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	6.0	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.58	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	90	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

# July 18, 2016 Client Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

**Client Sample ID: B35893**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-1**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L			06/24/16 16:57	1

**Client Sample ID: B35898**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-2**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L			06/24/16 16:57	1

**Client Sample ID: B35892**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-3**  
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			06/24/16 17:00	1

**Client Sample ID: B35897**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-4**  
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			06/24/16 17:01	1

**Client Sample ID: B35890**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-5**  
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			06/24/16 21:21	2
Nitrate as N	0.028	U D	0.056	0.028	mg/L			06/24/16 21:21	2
Fluoride	0.050	U D	0.10	0.050	mg/L			06/24/16 21:21	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			06/24/16 21:21	2
Sulfate	0.25	U D	0.50	0.25	mg/L			06/24/16 21:21	2

**Client Sample ID: B35891**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-6**  
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			06/24/16 21:06	2
Nitrate as N	6.0	D	0.056	0.028	mg/L			06/24/16 21:06	2
Fluoride	0.58	D	0.10	0.050	mg/L			06/24/16 21:06	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			06/24/16 21:06	2
Sulfate	90	D	0.50	0.25	mg/L			06/24/16 21:06	2

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-4693/29  
Matrix: Water  
Analysis Batch: 4693

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			06/24/16 19:07	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			06/24/16 19:07	1

Lab Sample ID: LCS 300-4693/30  
Matrix: Water  
Analysis Batch: 4693

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	2.26		mg/L		100	80 - 120
Nitrite as N	3.04	3.05		mg/L		100	80 - 120

Lab Sample ID: 300-3349-A-12 MS  
Matrix: Water  
Analysis Batch: 4693

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	0.073	D	0.452	0.467	D	mg/L		87	75 - 125
Nitrite as N	0.038	U D	0.609	0.547	D	mg/L		90	75 - 125

Lab Sample ID: 300-3349-A-12 DU  
Matrix: Water  
Analysis Batch: 4693

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Nitrate as N	0.073	D	0.0730	D	mg/L		0.3	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20

Lab Sample ID: MB 300-4694/29  
Matrix: Water  
Analysis Batch: 4694

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			06/24/16 19:07	1
Fluoride	0.025	U	0.050	0.025	mg/L			06/24/16 19:07	1
Sulfate	0.13	U	0.25	0.13	mg/L			06/24/16 19:07	1

Lab Sample ID: LCS 300-4694/30  
Matrix: Water  
Analysis Batch: 4694

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	15.7		mg/L		98	80 - 120
Fluoride	4.00	3.96		mg/L		99	80 - 120
Sulfate	20.0	19.8		mg/L		99	80 - 120

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-3349-A-12 MS  
Matrix: Water  
Analysis Batch: 4694

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

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Chloride	1.0	D	3.20	4.15	D	mg/L		97	75 - 125
Fluoride	0.17	D	0.800	0.910	D	mg/L		92	75 - 125
Sulfate	13	D	4.00	17.5	D	mg/L		108	75 - 125

Lab Sample ID: 300-3349-A-12 DU  
Matrix: Water  
Analysis Batch: 4694

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample		DU DU		Unit	D	RPD	RPD Limit
	Result	Qualifier	Result	Qualifier				
Chloride	1.0	D	1.04	D	mg/L		0.1	20
Fluoride	0.17	D	0.171	D	mg/L		0	20
Sulfate	13	D	13.2	D	mg/L		0.08	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-4697/3  
Matrix: Water  
Analysis Batch: 4697

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			06/24/16 16:52	1

Lab Sample ID: LCS 300-4697/4  
Matrix: Water  
Analysis Batch: 4697

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Cr (VI)	0.250	0.248		mg/L		99	80 - 120

Lab Sample ID: 300-3347-A-1 MS  
Matrix: Water  
Analysis Batch: 4697

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

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Cr (VI)	0.027		0.0499	0.0762		mg/L		99	75 - 125

Lab Sample ID: 300-3347-A-1 DU  
Matrix: Water  
Analysis Batch: 4697

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample		DU DU		Unit	D	RPD	RPD Limit
	Result	Qualifier	Result	Qualifier				
Cr (VI)	0.027		0.0278		mg/L		3	20

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

**HPLC/IC**

**Analysis Batch: 4693**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3348-5	B35890	Total/NA	Water	300.0	
300-3348-6	B35891	Total/NA	Water	300.0	
300-3349-A-12 DU	Duplicate	Total/NA	Water	300.0	
300-3349-A-12 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-4693/30	Lab Control Sample	Total/NA	Water	300.0	
MB 300-4693/29	Method Blank	Total/NA	Water	300.0	

**Analysis Batch: 4694**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3348-5	B35890	Total/NA	Water	300.0	
300-3348-6	B35891	Total/NA	Water	300.0	
300-3349-A-12 DU	Duplicate	Total/NA	Water	300.0	
300-3349-A-12 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-4694/30	Lab Control Sample	Total/NA	Water	300.0	
MB 300-4694/29	Method Blank	Total/NA	Water	300.0	

**General Chemistry**

**Analysis Batch: 4697**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3347-A-1 DU	Duplicate	Total/NA	Water	7196A	
300-3347-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-3348-1	B35893	Total/NA	Water	7196A	
300-3348-2	B35898	Total/NA	Water	7196A	
300-3348-3	B35892	Total/NA	Water	7196A	
300-3348-4	B35897	Total/NA	Water	7196A	
LCS 300-4697/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-4697/3	Method Blank	Total/NA	Water	7196A	

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

**Client Sample ID: B35893**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-1**  
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			4697	06/24/16 16:57	RLC	TAL RCH

**Client Sample ID: B35898**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-2**  
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			4697	06/24/16 16:57	RLC	TAL RCH

**Client Sample ID: B35892**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-3**  
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			4697	06/24/16 17:00	RLC	TAL RCH

**Client Sample ID: B35897**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-4**  
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			4697	06/24/16 17:01	RLC	TAL RCH

**Client Sample ID: B35890**  
Date Collected: 06/24/16 07:50  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-5**  
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	300.0		2	10 mL		4693	06/24/16 21:21	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4694	06/24/16 21:21	RLC	TAL RCH

**Client Sample ID: B35891**  
Date Collected: 06/24/16 10:30  
Date Received: 06/24/16 15:00

**Lab Sample ID: 300-3348-6**  
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	300.0		2	10 mL		4693	06/24/16 21:06	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4694	06/24/16 21:06	RLC	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

**Client Sample ID: Duplicate**

**Lab Sample ID: 300-3347-A-1 DU**

Date Collected: 06/24/16 13:03

Matrix: Water

Date Received: 06/24/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			4697	06/24/16 16:56	RLC	TAL RCH

**Client Sample ID: Duplicate**

**Lab Sample ID: 300-3349-A-12 DU**

Date Collected: 06/24/16 08:37

Matrix: Water

Date Received: 06/24/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		4693	06/24/16 20:06	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4694	06/24/16 20:06	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4693/30**

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		4693	06/24/16 19:22	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4694/30**

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		4694	06/24/16 19:22	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4697/4**

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			4697	06/24/16 16:52	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-4693/29**

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		4693	06/24/16 19:07	RLC	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-4694/29**

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		4694	06/24/16 19:07	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-4697/3**

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			4697	06/24/16 16:52	RLC	TAL RCH

**Client Sample ID: Matrix Spike**

**Lab Sample ID: 300-3347-A-1 MS**

Date Collected: 06/24/16 13:03

Matrix: Water

Date Received: 06/24/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1		3.0 mL	4697	06/24/16 16:53	RLC	TAL RCH

**Client Sample ID: Matrix Spike**

**Lab Sample ID: 300-3349-A-12 MS**

Date Collected: 06/24/16 08:37

Matrix: Water

Date Received: 06/24/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		4693	06/24/16 19:51	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4694	06/24/16 19:51	RLC	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: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

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



# July 18, 2016 Sample Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: I16-025

TestAmerica Job ID: 300-3348-1  
SDG: WC1197

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3348-1	B35893	Water	06/24/16 10:30	06/24/16 15:00
300-3348-2	B35898	Water	06/24/16 10:30	06/24/16 15:00
300-3348-3	B35892	Water	06/24/16 07:50	06/24/16 15:00
300-3348-4	B35897	Water	06/24/16 07:50	06/24/16 15:00
300-3348-5	B35890	Water	06/24/16 07:50	06/24/16 15:00
300-3348-6	B35891	Water	06/24/16 10:30	06/24/16 15:00

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

## Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3348-1

SDG Number: WC1197

**Login Number: 3348**

**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.	N/A	
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	

