

October 28, 2015

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

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

TestAmerica Job ID: 300-1041-1  
TestAmerica Sample Delivery Group: WC0434  
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:  
10/28/2015 2:07:03 PM  
Steven Campbell, Quality Assurance 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)

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

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



### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Chain of Custody . . . . .	5
Detection Summary . . . . .	8
Client Sample Results . . . . .	9
QC Sample Results . . . . .	10
QC Association Summary . . . . .	12
Lab Chronicle . . . . .	13
Method Summary . . . . .	15
Sample Summary . . . . .	16
Receipt Checklists . . . . .	17

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

TestAmerica Job ID: 300-1041-1  
SDG: WC0434

## Qualifiers

### HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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

TestAmerica Job ID: 300-1041-1  
SDG: WC0434

---

**Job ID: 300-1041-1**

---

**Laboratory: TestAmerica Richland**

**Narrative**

---

**Job Narrative  
300-1041-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 10/12/2015 2:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 8.1° C.

**HPLC/IC**

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

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
**X16-001-154**  
Page 1 of 1

Collector	S.W. King/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650		
SAF No.	X16-001	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303269		
Project Title	100-BC-5 RI, OCTOBER 2015	Logbook No.	HNF-N-506 <b>78/52</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>SPECIAL INSTRUCTIONS</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			Hold Time				
			Submit deliverables & invoices to CPP Sample Management				
			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
B32V/41	N	OCT 12 2015	0500	1x500-mL P	300.0 ANIONS_IC: COMMON	48 Hours	Cool <=6C

October 28, 2015

300-1041 COC



#1041  
WCO434

Relinquished By	S.W. King/CHPRC	Print	Signature	Date/Time	1100	Received By	L.D. Wall	Print	Signature	Date/Time	1200	Matrix *
Relinquished By	LD Wall	CHPRC	Signature	Date/Time	OCT 12 2015	Received By	J. Friesz, TARL	Signature	Date/Time	OCT 12 2015		S = Soil
Relinquished By				Date/Time		Received By			Date/Time			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			WT = 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
<b>FINAL SAMPLE DISPOSITION</b>		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. #  
**X16-001-156**  
Page 1 of 1

Collector	<b>SAW King/CHPRC</b>	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	X16-001	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303269
Project Title	100-BC-5 RI, OCTOBER 2015	Logbook No.	HNF-N-506 <b>1858</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>SPECIAL INSTRUCTIONS</b>		<b>Hold Time</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		Submit deliverables & invoices to CCP Sample Management		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
B32V42	N		<b>OCT 12 2015</b>	<b>1019</b>	1x20-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

October 28, 2015

#1041  
WCA134

Reinquished By	<b>SAW King/CHPRC</b>	<i>[Signature]</i>	Date/Time	<b>OCT 12 2015</b>	1200	Received By	<b>L.D. Wall</b>	<i>[Signature]</i>	Date/Time	<b>OCT 12 2015</b>	1200	Matrix *
Reinquished By	<b>L.D. Wall</b>	<i>[Signature]</i>	Date/Time	<b>OCT 12 2015</b>	1445	Received By	<b>J. Friesz, TAPI</b>	<i>[Signature]</i>	Date/Time	<b>OCT 12 2015</b>	1445	S = Soil
Reinquished By			Date/Time			Received By			Date/Time			SE = Sediment
Reinquished By			Date/Time			Received By			Date/Time			SO = Solid
Reinquished By			Date/Time			Received By			Date/Time			SL = Sludge
Reinquished By			Date/Time			Received By			Date/Time			W = Water
Reinquished By			Date/Time			Received By			Date/Time			O = Oil
Reinquished By			Date/Time			Received By			Date/Time			A = Air
Reinquished By			Date/Time			Received By			Date/Time			DS = Drum Solids
Reinquished By			Date/Time			Received By			Date/Time			DL = Drum Liquids
Reinquished By			Date/Time			Received By			Date/Time			T = Tissue
Reinquished By			Date/Time			Received By			Date/Time			WT = Wipe
Reinquished By			Date/Time			Received By			Date/Time			L = Liquid
Reinquished By			Date/Time			Received By			Date/Time			V = Vegetation
Reinquished By			Date/Time			Received By			Date/Time			X = Other

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
**X16-001-159**  
Page 1 of 1

Collector	<b>S.W. King/CHPRC</b>	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	X16-001	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303269
Project Title	100-BC-5 RI, OCTOBER 2015	Logbook No.	HNF-N-506 <b>18/52</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:	<b>30 Days PRIORITY</b>	Offsite Property No.	N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>			<b>SPECIAL INSTRUCTIONS</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			Submit deliverables & invoices to ^CPP Sample Management		
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
B32V55	N	W	1229	OCT 12 2015	1x20-mL P	300.0_ANIONS_JC: COMMON	48 Hours	Cool <=6C

*Handwritten:* 200.10/12/15

October 28, 2015

*Handwritten:* #1041  
WCO484

Reinquished By	<b>S.W. King/CHPRC</b>	Print	Sign	Date/Time	Received By	<b>L.D. Wall</b>	Print	Sign	Date/Time	Matrix *
Reinquished By	<b>L.D. Wall</b>	CHPRC	<i>[Signature]</i>	OCT 12 2015 1350	Received By	<b>J. Friesz, TARI</b>	<i>[Signature]</i>	OCT 12 2015 1445	S = Soil	DS = Drum Solids
Reinquished By					Received By				SE = Sediment	DL = Drum Liquids
Reinquished By					Received By				SO = Solid	T = Tissue
Reinquished By					Received By				SL = Sludge	WT = Wipe
Reinquished By					Received By				W = Water	L = Liquid
Reinquished By					Received By				O = Oil	V = Vegetation
Reinquished By					Received By				A = Air	X = Other

October 28, 2015  
**Detection Summary**

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

TestAmerica Job ID: 300-1041-1  
 SDG: WC0434

**Client Sample ID: B32V41**

**Lab Sample ID: 300-1041-1**

No Detections.

**Client Sample ID: B32V42**

**Lab Sample ID: 300-1041-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	1.4	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.12	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	28	D	0.50	0.25	mg/L	2		300.0	Total/NA

**Client Sample ID: B32V55**

**Lab Sample ID: 300-1041-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.0	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	1.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.18	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

This Detection Summary does not include radiochemical test results.

TestAmerica Richland



October 28, 2015  
**Client Sample Results**

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

TestAmerica Job ID: 300-1041-1  
 SDG: WC0434

**Client Sample ID: B32V41**  
**Date Collected: 10/12/15 08:00**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-1**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U	0.40	0.20	mg/L			10/13/15 19:11	2
Nitrate as N	0.028	U	0.056	0.028	mg/L			10/13/15 19:11	2
Fluoride	0.050	U	0.10	0.050	mg/L			10/13/15 19:11	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/13/15 19:11	2
Sulfate	0.25	U	0.50	0.25	mg/L			10/13/15 19:11	2

**Client Sample ID: B32V42**  
**Date Collected: 10/12/15 10:19**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-2**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1	D	0.40	0.20	mg/L			10/13/15 19:26	2
Nitrate as N	1.4	D	0.056	0.028	mg/L			10/13/15 19:26	2
Fluoride	0.12	D	0.10	0.050	mg/L			10/13/15 19:26	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/13/15 19:26	2
Sulfate	28	D	0.50	0.25	mg/L			10/13/15 19:26	2

**Client Sample ID: B32V55**  
**Date Collected: 10/12/15 12:29**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-3**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0	D	0.40	0.20	mg/L			10/13/15 19:41	2
Nitrate as N	1.2	D	0.056	0.028	mg/L			10/13/15 19:41	2
Fluoride	0.18	D	0.10	0.050	mg/L			10/13/15 19:41	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			10/13/15 19:41	2
Sulfate	26	D	0.50	0.25	mg/L			10/13/15 19:41	2

October 28, 2015  
**QC Sample Results**

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

TestAmerica Job ID: 300-1041-1  
SDG: WC0434

**Method: 300.0 - Anions, Ion Chromatography**

**Lab Sample ID: MB 300-1431/37**  
**Matrix: Water**  
**Analysis Batch: 1431**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			10/13/15 17:41	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			10/13/15 17:41	1

**Lab Sample ID: LCS 300-1431/38**  
**Matrix: Water**  
**Analysis Batch: 1431**

**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	2.32		mg/L		103	80 - 120
Nitrite as N	3.04	3.13		mg/L		103	80 - 120

**Lab Sample ID: 300-1053-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 1431**

**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	3.1	D	0.452	3.51	D	mg/L		97	75 - 125
Nitrite as N	0.038	U	0.609	0.537	D	mg/L		88	75 - 125

**Lab Sample ID: 300-1053-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 1431**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	3.1	D	3.04	D	mg/L		0.8	20
Nitrite as N	0.038	U	0.038	U	mg/L		NC	20

**Lab Sample ID: MB 300-1432/37**  
**Matrix: Water**  
**Analysis Batch: 1432**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			10/13/15 17:41	1
Fluoride	0.025	U	0.050	0.025	mg/L			10/13/15 17:41	1
Sulfate	0.13	U	0.25	0.13	mg/L			10/13/15 17:41	1

**Lab Sample ID: LCS 300-1432/38**  
**Matrix: Water**  
**Analysis Batch: 1432**

**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	16.2		mg/L		101	80 - 120
Fluoride	4.00	4.09		mg/L		102	80 - 120
Sulfate	20.0	20.4		mg/L		102	80 - 120

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

TestAmerica Job ID: 300-1041-1  
 SDG: WC0434

**Method: 300.0 - Anions, Ion Chromatography (Continued)**

**Lab Sample ID: 300-1053-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 1432**

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

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Chloride	5.6	D	3.20	8.81	D	mg/L		100	75 - 125	
Fluoride	0.34	D	0.800	1.11	D	mg/L		96	75 - 125	
Sulfate	45	D	4.00	48.6	D	mg/L		92	75 - 125	

**Lab Sample ID: 300-1053-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 1432**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Chloride	5.6	D	5.57	D	mg/L		0.8	0.8	20
Fluoride	0.34	D	0.340	D	mg/L		0.4	0.4	20
Sulfate	45	D	44.6	D	mg/L		0.8	0.8	20



October 28, 2015  
QC Association Summary

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

TestAmerica Job ID: 300-1041-1  
SDG: WC0434

HPLC/IC

Analysis Batch: 1431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1041-1	B32V41	Total/NA	Water	300.0	
300-1041-2	B32V42	Total/NA	Water	300.0	
300-1041-3	B32V55	Total/NA	Water	300.0	
300-1053-A-1 DU	Duplicate	Total/NA	Water	300.0	
300-1053-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-1431/38	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1431/37	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1041-1	B32V41	Total/NA	Water	300.0	
300-1041-2	B32V42	Total/NA	Water	300.0	
300-1041-3	B32V55	Total/NA	Water	300.0	
300-1053-A-1 DU	Duplicate	Total/NA	Water	300.0	
300-1053-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 300-1432/38	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1432/37	Method Blank	Total/NA	Water	300.0	

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

TestAmerica Job ID: 300-1041-1  
 SDG: WC0434

**Client Sample ID: B32V41**  
**Date Collected: 10/12/15 08:00**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-1**  
**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	300.0		2	10 mL		1431	10/13/15 19:11	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1432	10/13/15 19:11	RLC	TAL RCH

**Client Sample ID: B32V42**  
**Date Collected: 10/12/15 10:19**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-2**  
**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	300.0		2	10 mL		1431	10/13/15 19:26	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1432	10/13/15 19:26	RLC	TAL RCH

**Client Sample ID: B32V55**  
**Date Collected: 10/12/15 12:29**  
**Date Received: 10/12/15 14:45**

**Lab Sample ID: 300-1041-3**  
**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	300.0		2	10 mL		1431	10/13/15 19:41	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1432	10/13/15 19:41	RLC	TAL RCH

**Client Sample ID: Duplicate**  
**Date Collected: 10/13/15 08:10**  
**Date Received: 10/13/15 09:50**

**Lab Sample ID: 300-1053-A-1 DU**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1431	10/13/15 18:41	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1432	10/13/15 18:41	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**  
**Date Collected: N/A**  
**Date Received: N/A**

**Lab Sample ID: LCS 300-1431/38**  
**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		1	10 mL		1431	10/13/15 17:56	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**  
**Date Collected: N/A**  
**Date Received: N/A**

**Lab Sample ID: LCS 300-1432/38**  
**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		1	10 mL		1432	10/13/15 17:56	RLC	TAL RCH

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

TestAmerica Job ID: 300-1041-1  
 SDG: WC0434

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-1431/37**

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		1431	10/13/15 17:41	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-1432/37**

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		1432	10/13/15 17:41	RLC	TAL RCH

**Client Sample ID: Matrix Spike**

**Lab Sample ID: 300-1053-A-1 MS**

Date Collected: 10/13/15 08:10

Matrix: Water

Date Received: 10/13/15 09:50

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		1431	10/13/15 18:26	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1432	10/13/15 18:26	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: CH2M Hill Chemical

TestAmerica Job ID: 300-1041-1  
SDG: WC0434

---

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH

---

**Protocol References:**

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

**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: 300-1041-1  
SDG: WC0434

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1041-1	B32V41	Water	10/12/15 08:00	10/12/15 14:45
300-1041-2	B32V42	Water	10/12/15 10:19	10/12/15 14:45
300-1041-3	B32V55	Water	10/12/15 12:29	10/12/15 14:45

- 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: 300-1041-1  
SDG Number: WC0434

**Login Number: 1041**  
**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	

