

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: 300-7004-1
TestAmerica Sample Delivery Group: WC2818
Client Project/Site: W18-004

For:
CH2M Hill Plateau Remediation Company
825 Jadwin Avenue
Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:
5/10/2018 8:16:12 AM

Ashley Worthy, Project Manager I
(509)375-3131
ashley.worthy@testamericainc.com



LINKS

Review your project results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Chain of Custody	5
Detection Summary	15
Client Sample Results	17
QC Sample Results	20
QC Association Summary	23
Lab Chronicle	24
Method Summary	28
Sample Summary	29
Receipt Checklists	30

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
N	MS, MSD: Spike recovery is outside acceptance limits.
U	Analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Job ID: 300-7004-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-7004-1**

Comments

No additional comments.

Receipt

The samples were received on 4/10/2018 2:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

HPLC/IC

Method(s) 300.0: The matrix spike (MS) recoveries for analytical batch 300-10927 were outside control limits for Nitrite as N. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

General Chemistry

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





**CH2M Hill Plateau
Remediation Company**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-179
Page 1 of 1

Collector: <i>Jean Amiller</i> C2H/RC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA_WAC, APRIL 2018	Logbook No.: HNF-N-506-48/72	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARK
 ** * 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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HRP4	N	W	4-10-18	1048	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

7004
W181818

Relinquished By: <i>Bydrea Ayub</i> K2H/RC	Signature	APR 10 2018	1300	Received By: <i>Leslye Holm</i> K2H/RC	Signature	APR 10 2018	1300	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: <i>Leslye Holm</i> K2H/RC	Signature	APR 10 2018	1435	Received By: <i>TARL</i>	Signature	4/10/18	1435	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	

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

CH2M Hill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-178
Page 1 of 1

Collector:	Juan Aguilar RCRA/PC	Contact/Requester:	Karen Waters-Husted
SAF No.:	W18-004	Sampling Origin:	Hanford Site
Project Title:	RCRA WAC, APRIL 2018	Logbook No.:	HNF-N-506-98772
Shipped To (Lab):	TestAmerica Incorporated, Rich	Method of Shipment:	GOVERNMENT VEHICLE
Protocol:	RCRA	Priority:	30 Days
<p>POSSIBLE SAMPLE HAZARDS/REMARK</p> <p>** ** 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</p>		<p>SPECIAL INSTRUCTIONS</p> <p>N/A</p>	

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HRP1	N	W	4-10-18	1238	1x125-mL P	300.0_ANTIONS_IC: COMMON	48 Hours	COOL <=6C

7004
W182818

Relinquished By:	Juan Aguilar	Signature	Date/Time	Received By:	Lesly Weis	Signature	Date/Time	<p>Matrix *</p> <p>S = Soil DS = Drum Solids</p> <p>SE = Sediment DL = Drum Liquid</p> <p>SO = Solid T = Tissue</p> <p>SL = Sludge WI = Wipe</p> <p>W = Water L = Liquid</p> <p>O = Oil V = Vegetation</p> <p>A = Air X = Other</p>
Relinquished By:	Lesly Weis	Signature	APR 10 2018 1300	Received By:	Juan Aguilar	Signature	APR 10 2018 1300	
Relinquished By:	Juan Aguilar	Signature	APR 10 2018 1435	Received By:	Juan Aguilar	Signature	APR 10 2018 1435	
Relinquished By:	Juan Aguilar	Signature	APR 10 2018 1435	Received By:	Juan Aguilar	Signature	APR 10 2018 1435	
Relinquished By:	Juan Aguilar	Signature	APR 10 2018 1435	Received By:	Juan Aguilar	Signature	APR 10 2018 1435	



CH2MHILL Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC # **W18-004-177**
Page 1 of 1

Collector: Juan Aguilar KCHRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA_WAC, APRIL 2018	Logbook No.: HNF-N-506-09172	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A
POSSIBLE SAMPLE HAZARDS/REMARK *** 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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HNN7	N	W	4-10-18	1152	1x125-mL P	300.0_ANTONS_IC: COMMON	48 Hours	COOL <=6C

2004
1506018

Relinquished By: Juan Aguilar KCHRC	Signature: [Signature]	Date/Time: APR 10 2018 1302	Received By: Juan Aguilar KCHRC	Signature: [Signature]	Date/Time: APR 10 2018 1302	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Juan Aguilar KCHRC	Signature: [Signature]	Date/Time: APR 10 2018 1435	Received By: TARI	Signature: [Signature]	Date/Time: 4/10/18 1435	
Relinquished By: [Signature]	Signature: [Signature]	Date/Time: [Date/Time]	Received By: [Signature]	Signature: [Signature]	Date/Time: [Date/Time]	
Relinquished By: [Signature]	Signature: [Signature]	Date/Time: [Date/Time]	Received By: [Signature]	Signature: [Signature]	Date/Time: [Date/Time]	

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.#
W18-004-163
Page 1 of 1

Collector: Jeff Lucas /CHPRC
Contact/Requester: Karen Waters-Husted
Telephone No.: 509-376-4650

SAF No.: W18-004
Sampling Origin: Hanford Site
Purchase Order/Charge Code: 300071

Project Title: RCRA_WAC, APRIL 2018
Logbook No.: HNF-N-506 100
Ice Chest No.: N/A

Shipped To (Lab): TestAmerica Incorporated, Rich
Method of Shipment GOVERNMENT VEHICLE
Bill of Lading/Air Bill No.: N/A

Protocol: RCRA
Priority: 30 Days
Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** 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

Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HRD9	N	APR 10 2018	1138	1x125-mL P	300.0 ANTONS_IC: COMMON	48 Hours	COOL <=6C

7004
W181818

Relinquished By: Jeff Lucas /CHPRC
Signature: [Signature]
Date/Time: APR 10 2018 1155
Received By: Leah West /CHPRC
Signature: [Signature]
Date/Time: APR 10 2018 1155

Relinquished By: Leah West /CHPRC
Signature: [Signature]
Date/Time: APR 10 2018 1435
Received By: J. Hoim
Signature: [Signature]
Date/Time: 4/10/18 1435

Relinquished By: [Signature]
Signature: [Signature]
Date/Time: [Date/Time]
Received By: [Signature]
Signature: [Signature]
Date/Time: [Date/Time]

Relinquished By: [Signature]
Signature: [Signature]
Date/Time: [Date/Time]
Received By: [Signature]
Signature: [Signature]
Date/Time: [Date/Time]

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



CH2MHILL Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-181
Page 1 of 1

Collector: Juan Aguilar /CH2MHC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA WAC, APRIL 2018	Logbook No.: HNF-N-506-98/72	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A
POSSIBLE SAMPLE HAZARDS/REMARK ** ** 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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HR02	N	W	4-10-18	1129	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	COOL <=6C

2004
3502818

Relinquished By: Juan Aguilar /CH2MHC	Signature	APR 10 2018	1300	Received By: Lesly West /CH2MHC	Signature	APR 10 2018	1300	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Lesly West /CH2MHC	Signature	APR 10 2018	1435	Received By: Tabi /CH2MHC	Signature	4/10/18	1435	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	

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

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

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # :
W18-004-182
Page 1 of 1

Collector: Juan Aguilar <i>FCSP/RC</i>	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA_MAC, APRIL 2018	Logbook No.: HNF-N-506-98172	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A
POSSIBLE SAMPLE HAZARDS/REMARK ** ** 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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HR07	N	W	4-10-18	0905	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

7004
W202818

Relinquished By: Juan Aguilar <i>FCSP/RC</i>	Signature	APR 10 2018	15 20	Received By: Judy Neal <i>FCSP/RC</i>	Signature	APR 10 2018	10 20
Print First and Last Name	Signature	Date/Time		Print First and Last Name	Signature	Date/Time	
Relinquished By: Judy Neal <i>FCSP/RC</i>	Signature	APR 10 2018	1435	Received By: Tom	Signature	4/10/18	1435
Print First and Last Name	Signature	Date/Time		Print First and Last Name	Signature	Date/Time	
Relinquished By: _____	Signature	Date/Time		Received By: _____	Signature	Date/Time	
Print First and Last Name	Signature	Date/Time		Print First and Last Name	Signature	Date/Time	

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

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



CH2MHILL Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-167
Page 1 of 1

Collector:	Jeff Lucas /CHPRC	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W18-004	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA WAC, APRIL 2018	Logbook No.:	HNF-N-506 150	Ice Chest No.:	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	Method of Shipment:	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.:	N/A
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A
<p>POSSIBLE SAMPLE HAZARDS/REMARK</p> <p>** 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</p>			<p>SPECIAL INSTRUCTIONS</p> <p>N/A</p>		

Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HP65	N	W APR 10 2018	0835	1x125-mL P	300.0 ANIONS_IC: COMMON	48 HOURS	COOL <=6C

7004
USE 2818

Relinquished By:	Jeff Lucas /CHPRC	Signature	APR 10 2018	0935	Received By:	Leah Hill /CHPRC	Signature	APR 10 2018	0935
Relinquished By:	Leah Hill /CHPRC	Signature	APR 10 2018	1435	Received By:	TARL	Signature	4/10/18	1435
Relinquished By:	Signature	Signature	Date/Time	Date/Time	Received By:	Signature	Signature	Date/Time	Date/Time
Relinquished By:	Signature	Signature	Date/Time	Date/Time	Received By:	Signature	Signature	Date/Time	Date/Time
Relinquished By:	Signature	Signature	Date/Time	Date/Time	Received By:	Signature	Signature	Date/Time	Date/Time

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

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

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

**CH2MHill Plateau
Remediation Company**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-180
Page 1 of 1

Collector:	Juan Aguilar fchpprc	Contact/Requester:	Karen Waters-Husted
SAF No.:	W18-004	Sampling Origin:	Hanford Site
Project Title:	RCRA_WAC, APRIL 2018	Logbook No.:	HNF-N-506 - 48/172
Shipped To (Lab):	TestAmerica Incorporated, Rich	Method of Shipment:	GOVERNMENT VEHICLE
Protocol:	RCRA	Priority:	30 Days
POSSIBLE SAMPLE HAZARDS/REMARK		SPECIAL INSTRUCTIONS	
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1		N/A	

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HRP7	N	W	4-10-18	0814	1x125-mL P	300.0_ANTIONS_IC: COMMON	48 Hours	COOL <=6C

7004
W18018

Relinquished By:	Signature	Date/Time	Received By:	Signature	Date/Time
Relinquished By:	<i>[Signature]</i>	APR 10 2018 10:20	Received By:	<i>[Signature]</i>	APR 10 2018 10:20
Relinquished By:	<i>[Signature]</i>	APR 10 2018 14:35	Received By:	<i>[Signature]</i>	4/10/18 14:35
Relinquished By:	<i>[Signature]</i>		Received By:	<i>[Signature]</i>	
Relinquished By:	<i>[Signature]</i>		Received By:	<i>[Signature]</i>	

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

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

CH2M Hill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-166

Page 1 of 1

Collector: <i>Jeff Lucas</i> JCHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650	
SAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071	
Project Title: RCRA_WAC, APRIL 2018	Logbook No.: HNF-N-506	Ice Chest No.: N/A	
Shipped To (Lab): <u>TestAmerica Incorporated, Rich</u>	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A	
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARK
 ** ** 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

Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HP64	N	APR 10 2018	0935	1X125-mL P	300.0_ANTONS_IC: COMMON	48 Hours	Cool <=6C

7004
W1802818

Relinquished By: <i>Jeff Lucas</i> JCHPRC	Received By: <i>Larry Miller</i> JCHPRC	Date/Time: APR 10 2018 0935
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Date/Time: APR 10 2018 0935
Relinquished By: <i>Larry Miller</i> JCHPRC	Received By: <i>FEDEX</i>	Date/Time: APR 10 2018 1435
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Date/Time: APR 10 2018 1435
Relinquished By: <i>Larry Miller</i> JCHPRC	Received By: <i>TARL</i>	Date/Time: APR 10 2018 0935
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Date/Time: APR 10 2018 0935

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

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

May 10, 2018
Detection Summary

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRF1

Lab Sample ID: 300-7004-1

No Detections.

Client Sample ID: B3HRD8

Lab Sample ID: 300-7004-2

No Detections.

Client Sample ID: B3HRP4

Lab Sample ID: 300-7004-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	21	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.41	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.084	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	33	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HRP1

Lab Sample ID: 300-7004-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	18	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.37	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.085	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	36	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HRN7

Lab Sample ID: 300-7004-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	22	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.38	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.085	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	32	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HRD9

Lab Sample ID: 300-7004-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	77	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	10	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.39	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	280	D	5.0	2.5	mg/L	20		300.0	Total/NA

Client Sample ID: B3HR02

Lab Sample ID: 300-7004-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	18	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.41	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.084	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	31	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HR07

Lab Sample ID: 300-7004-8

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

May 10, 2018
Detection Summary

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HR07 (Continued)

Lab Sample ID: 300-7004-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	16	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.45	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.089	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	32	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HP65

Lab Sample ID: 300-7004-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	4.8	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.42	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.099	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	400	D	5.0	2.5	mg/L	20		300.0	Total/NA

Client Sample ID: B3HRP7

Lab Sample ID: 300-7004-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23	o D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	17	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.41	o D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.081	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	32	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3HP64

Lab Sample ID: 300-7004-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

May 10, 2018
Client Sample Results

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRF1

Lab Sample ID: 300-7004-1

Date Collected: 04/10/18 11:38

Matrix: Water

Date Received: 04/10/18 14:35

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			04/10/18 15:55	1

Client Sample ID: B3HRD8

Lab Sample ID: 300-7004-2

Date Collected: 04/10/18 11:38

Matrix: Water

Date Received: 04/10/18 14:35

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			04/10/18 15:55	1

Client Sample ID: B3HRP4

Lab Sample ID: 300-7004-3

Date Collected: 04/10/18 10:48

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21	o D	0.40	0.20	mg/L			04/10/18 17:09	2
Nitrate as N	21	D	0.14	0.070	mg/L			04/10/18 21:42	5
Fluoride	0.41	o D	0.10	0.050	mg/L			04/10/18 17:09	2
Nitrite as N	0.084	D N	0.076	0.038	mg/L			04/10/18 17:09	2
Sulfate	33	D	0.50	0.25	mg/L			04/10/18 17:09	2

Client Sample ID: B3HRP1

Lab Sample ID: 300-7004-4

Date Collected: 04/10/18 12:38

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20	o D	0.40	0.20	mg/L			04/10/18 17:57	2
Nitrate as N	18	D	0.14	0.070	mg/L			04/10/18 23:03	5
Fluoride	0.37	o D	0.10	0.050	mg/L			04/10/18 17:57	2
Nitrite as N	0.085	D N	0.076	0.038	mg/L			04/10/18 17:57	2
Sulfate	36	D	0.50	0.25	mg/L			04/10/18 17:57	2

Client Sample ID: B3HRN7

Lab Sample ID: 300-7004-5

Date Collected: 04/10/18 11:52

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16	o D	0.40	0.20	mg/L			04/10/18 18:13	2
Nitrate as N	22	D	0.14	0.070	mg/L			04/10/18 23:19	5
Fluoride	0.38	o D	0.10	0.050	mg/L			04/10/18 18:13	2
Nitrite as N	0.085	D N	0.076	0.038	mg/L			04/10/18 18:13	2
Sulfate	32	D	0.50	0.25	mg/L			04/10/18 18:13	2

TestAmerica Richland

May 10, 2018
Client Sample Results

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRD9

Lab Sample ID: 300-7004-6

Date Collected: 04/10/18 11:38

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77	o D	0.40	0.20	mg/L			04/10/18 18:29	2
Nitrate as N	10	D	0.056	0.028	mg/L			04/10/18 18:29	2
Fluoride	0.39	o D	0.10	0.050	mg/L			04/10/18 18:29	2
Nitrite as N	0.038	U D N	0.076	0.038	mg/L			04/10/18 18:29	2
Sulfate	280	D	5.0	2.5	mg/L			04/10/18 23:35	20

Client Sample ID: B3HR02

Lab Sample ID: 300-7004-7

Date Collected: 04/10/18 11:29

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14	o D	0.40	0.20	mg/L			04/10/18 18:45	2
Nitrate as N	18	D	0.14	0.070	mg/L			04/10/18 23:51	5
Fluoride	0.41	o D	0.10	0.050	mg/L			04/10/18 18:45	2
Nitrite as N	0.084	D N	0.076	0.038	mg/L			04/10/18 18:45	2
Sulfate	31	D	0.50	0.25	mg/L			04/10/18 18:45	2

Client Sample ID: B3HR07

Lab Sample ID: 300-7004-8

Date Collected: 04/10/18 09:05

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20	o D	0.40	0.20	mg/L			04/10/18 19:01	2
Nitrate as N	16	D	0.14	0.070	mg/L			04/11/18 00:07	5
Fluoride	0.45	o D	0.10	0.050	mg/L			04/10/18 19:01	2
Nitrite as N	0.089	D N	0.076	0.038	mg/L			04/10/18 19:01	2
Sulfate	32	D	0.50	0.25	mg/L			04/10/18 19:01	2

Client Sample ID: B3HP65

Lab Sample ID: 300-7004-9

Date Collected: 04/10/18 08:35

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34	o D	0.40	0.20	mg/L			04/10/18 20:54	2
Nitrate as N	4.8	D	0.056	0.028	mg/L			04/10/18 20:54	2
Fluoride	0.42	o D	0.10	0.050	mg/L			04/10/18 20:54	2
Nitrite as N	0.099	D N	0.076	0.038	mg/L			04/10/18 20:54	2
Sulfate	400	D	5.0	2.5	mg/L			04/11/18 00:23	20

Client Sample ID: B3HRP7

Lab Sample ID: 300-7004-10

Date Collected: 04/10/18 08:14

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23	o D	0.40	0.20	mg/L			04/10/18 20:06	2
Nitrate as N	17	D	0.14	0.070	mg/L			04/11/18 00:39	5

TestAmerica Richland

May 10, 2018
Client Sample Results

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRP7

Lab Sample ID: 300-7004-10

Date Collected: 04/10/18 08:14

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.41	o D	0.10	0.050	mg/L			04/10/18 20:06	2
Nitrite as N	0.081	D N	0.076	0.038	mg/L			04/10/18 20:06	2
Sulfate	32	D	0.50	0.25	mg/L			04/10/18 20:06	2

Client Sample ID: B3HP64

Lab Sample ID: 300-7004-11

Date Collected: 04/10/18 07:20

Matrix: Water

Date Received: 04/10/18 14:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U D o	0.40	0.20	mg/L			04/10/18 20:22	2
Nitrate as N	0.028	U D	0.056	0.028	mg/L			04/10/18 20:22	2
Fluoride	0.050	U D o	0.10	0.050	mg/L			04/10/18 20:22	2
Nitrite as N	0.038	U D N	0.076	0.038	mg/L			04/10/18 20:22	2
Sulfate	0.25	U D	0.50	0.25	mg/L			04/10/18 20:22	2

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-10926/11
Matrix: Water
Analysis Batch: 10926

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			04/10/18 16:37	1
Fluoride	0.025	U	0.050	0.025	mg/L			04/10/18 16:37	1
Sulfate	0.13	U	0.25	0.13	mg/L			04/10/18 16:37	1

Lab Sample ID: LCS 300-10926/12
Matrix: Water
Analysis Batch: 10926

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	3.23	o	mg/L		20	80 - 120
Fluoride	4.00	2.20	o	mg/L		55	80 - 120
Sulfate	20.0	16.6		mg/L		83	80 - 120

Lab Sample ID: 300-7004-3 MS
Matrix: Water
Analysis Batch: 10926

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21	o D	3.20	24.1	D	mg/L		89	75 - 125
Fluoride	0.41	o D	0.800	1.17	D	mg/L		94	75 - 125
Sulfate	33	D	4.00	36.7	D	mg/L		92	75 - 125

Lab Sample ID: 300-7004-3 DU
Matrix: Water
Analysis Batch: 10926

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	21	o D	21.0	o D	mg/L		1	20
Fluoride	0.41	o D	0.410	o D	mg/L		0.3	20
Sulfate	33	D	32.7	D	mg/L		1	20

Lab Sample ID: MB 300-10927/11
Matrix: Water
Analysis Batch: 10927

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			04/10/18 16:37	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			04/10/18 16:37	1

Lab Sample ID: LCS 300-10927/12
Matrix: Water
Analysis Batch: 10927

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	2.54		mg/L		113	80 - 120
Nitrite as N	3.04	3.41		mg/L		112	80 - 120

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-7004-3 MS
Matrix: Water
Analysis Batch: 10927

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.084	D N	0.609	0.533	D N	mg/L		74	75 - 125

Lab Sample ID: 300-7004-3 MS
Matrix: Water
Analysis Batch: 10927

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	21	D	1.13	21.8	D	mg/L		67	75 - 125

Lab Sample ID: 300-7004-3 DU
Matrix: Water
Analysis Batch: 10927

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrite as N	0.084	D N	0.0852	D	mg/L		2	20

Lab Sample ID: 300-7004-3 DU
Matrix: Water
Analysis Batch: 10927

Client Sample ID: B3HRP4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	21	D	21.3	D	mg/L		1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-10935/3
Matrix: Water
Analysis Batch: 10935

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			04/10/18 15:52	1

Lab Sample ID: LCS 300-10935/4
Matrix: Water
Analysis Batch: 10935

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	0.255		mg/L		102	80 - 120

Lab Sample ID: 300-7004-1 MS
Matrix: Water
Analysis Batch: 10935

Client Sample ID: B3HRF1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0015	U	0.0501	0.0523		mg/L		104	75 - 125

TestAmerica Richland

May 10, 2018
QC Sample Results

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-7004-1 DU
Matrix: Water
Analysis Batch: 10935

Client Sample ID: B3HRF1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0015	U	0.0015	U	mg/L	--	NC	20

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

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

HPLC/IC

Analysis Batch: 10926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7004-3	B3HRP4	Total/NA	Water	300.0	
300-7004-4	B3HRP1	Total/NA	Water	300.0	
300-7004-5	B3HRN7	Total/NA	Water	300.0	
300-7004-6	B3HRD9	Total/NA	Water	300.0	
300-7004-6	B3HRD9	Total/NA	Water	300.0	
300-7004-7	B3HR02	Total/NA	Water	300.0	
300-7004-8	B3HR07	Total/NA	Water	300.0	
300-7004-9	B3HP65	Total/NA	Water	300.0	
300-7004-9	B3HP65	Total/NA	Water	300.0	
300-7004-10	B3HRP7	Total/NA	Water	300.0	
300-7004-11	B3HP64	Total/NA	Water	300.0	
MB 300-10926/11	Method Blank	Total/NA	Water	300.0	
LCS 300-10926/12	Lab Control Sample	Total/NA	Water	300.0	
300-7004-3 MS	B3HRP4	Total/NA	Water	300.0	
300-7004-3 DU	B3HRP4	Total/NA	Water	300.0	

Analysis Batch: 10927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7004-3	B3HRP4	Total/NA	Water	300.0	
300-7004-3	B3HRP4	Total/NA	Water	300.0	
300-7004-4	B3HRP1	Total/NA	Water	300.0	
300-7004-4	B3HRP1	Total/NA	Water	300.0	
300-7004-5	B3HRN7	Total/NA	Water	300.0	
300-7004-5	B3HRN7	Total/NA	Water	300.0	
300-7004-6	B3HRD9	Total/NA	Water	300.0	
300-7004-7	B3HR02	Total/NA	Water	300.0	
300-7004-7	B3HR02	Total/NA	Water	300.0	
300-7004-8	B3HR07	Total/NA	Water	300.0	
300-7004-8	B3HR07	Total/NA	Water	300.0	
300-7004-9	B3HP65	Total/NA	Water	300.0	
300-7004-10	B3HRP7	Total/NA	Water	300.0	
300-7004-10	B3HRP7	Total/NA	Water	300.0	
300-7004-11	B3HP64	Total/NA	Water	300.0	
MB 300-10927/11	Method Blank	Total/NA	Water	300.0	
LCS 300-10927/12	Lab Control Sample	Total/NA	Water	300.0	
300-7004-3 MS	B3HRP4	Total/NA	Water	300.0	
300-7004-3 MS	B3HRP4	Total/NA	Water	300.0	
300-7004-3 DU	B3HRP4	Total/NA	Water	300.0	
300-7004-3 DU	B3HRP4	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 10935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7004-1	B3HRF1	Total/NA	Water	7196A	
300-7004-2	B3HRD8	Total/NA	Water	7196A	
MB 300-10935/3	Method Blank	Total/NA	Water	7196A	
LCS 300-10935/4	Lab Control Sample	Total/NA	Water	7196A	
300-7004-1 MS	B3HRF1	Total/NA	Water	7196A	
300-7004-1 DU	B3HRF1	Total/NA	Water	7196A	

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRF1

Date Collected: 04/10/18 11:38

Date Received: 04/10/18 14:35

Lab Sample ID: 300-7004-1

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			10935	04/10/18 15:55	TRH	TAL RCH

Client Sample ID: B3HRD8

Date Collected: 04/10/18 11:38

Date Received: 04/10/18 14:35

Lab Sample ID: 300-7004-2

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			10935	04/10/18 15:55	TRH	TAL RCH

Client Sample ID: B3HRP4

Date Collected: 04/10/18 10:48

Date Received: 04/10/18 14:35

Lab Sample ID: 300-7004-3

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			10926	04/10/18 17:09	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 17:09	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 21:42	RTQ	TAL RCH

Client Sample ID: B3HRP1

Date Collected: 04/10/18 12:38

Date Received: 04/10/18 14:35

Lab Sample ID: 300-7004-4

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	300.0		2			10926	04/10/18 17:57	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 17:57	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 23:03	RTQ	TAL RCH

Client Sample ID: B3HRN7

Date Collected: 04/10/18 11:52

Date Received: 04/10/18 14:35

Lab Sample ID: 300-7004-5

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			10926	04/10/18 18:13	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 18:13	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 23:19	RTQ	TAL RCH

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HRD9

Lab Sample ID: 300-7004-6

Date Collected: 04/10/18 11:38

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 18:29	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 18:29	RTQ	TAL RCH
Total/NA	Analysis	300.0		20			10926	04/10/18 23:35	RTQ	TAL RCH

Client Sample ID: B3HR02

Lab Sample ID: 300-7004-7

Date Collected: 04/10/18 11:29

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 18:45	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 18:45	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 23:51	RTQ	TAL RCH

Client Sample ID: B3HR07

Lab Sample ID: 300-7004-8

Date Collected: 04/10/18 09:05

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 19:01	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 19:01	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/11/18 00:07	RTQ	TAL RCH

Client Sample ID: B3HP65

Lab Sample ID: 300-7004-9

Date Collected: 04/10/18 08:35

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 20:54	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 20:54	RTQ	TAL RCH
Total/NA	Analysis	300.0		20			10926	04/11/18 00:23	RTQ	TAL RCH

Client Sample ID: B3HRP7

Lab Sample ID: 300-7004-10

Date Collected: 04/10/18 08:14

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 20:06	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 20:06	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/11/18 00:39	RTQ	TAL RCH

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: B3HP64

Lab Sample ID: 300-7004-11

Date Collected: 04/10/18 07:20

Matrix: Water

Date Received: 04/10/18 14:35

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			10926	04/10/18 20:22	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 20:22	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-10926/11

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			10926	04/10/18 16:37	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-10927/11

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			10927	04/10/18 16:37	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-10935/3

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			10935	04/10/18 15:52	TRH	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-10926/12

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			10926	04/10/18 16:53	RTQ	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-10927/12

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			10927	04/10/18 16:53	RTQ	TAL RCH

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-10935/4

Date Collected: N/A
Date Received: N/A

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			10935	04/10/18 15:52	TRH	TAL RCH

Client Sample ID: B3HRF1

Lab Sample ID: 300-7004-1 MS

Date Collected: 04/10/18 11:38
Date Received: 04/10/18 14:35

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			10935	04/10/18 15:52	TRH	TAL RCH

Client Sample ID: B3HRP4

Lab Sample ID: 300-7004-3 MS

Date Collected: 04/10/18 10:48
Date Received: 04/10/18 14:35

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			10926	04/10/18 17:25	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 17:25	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 21:58	RTQ	TAL RCH

Client Sample ID: B3HRF1

Lab Sample ID: 300-7004-1 DU

Date Collected: 04/10/18 11:38
Date Received: 04/10/18 14:35

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			10935	04/10/18 15:55	TRH	TAL RCH

Client Sample ID: B3HRP4

Lab Sample ID: 300-7004-3 DU

Date Collected: 04/10/18 10:48
Date Received: 04/10/18 14:35

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			10926	04/10/18 17:41	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10927	04/10/18 17:41	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			10927	04/10/18 22:14	RTQ	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: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

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



May 10, 2018
Sample Summary

Rev 0

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7004-1
SDG: WC2818

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-7004-1	B3HRF1	Water	04/10/18 11:38	04/10/18 14:35
300-7004-2	B3HRD8	Water	04/10/18 11:38	04/10/18 14:35
300-7004-3	B3HRP4	Water	04/10/18 10:48	04/10/18 14:35
300-7004-4	B3HRP1	Water	04/10/18 12:38	04/10/18 14:35
300-7004-5	B3HRN7	Water	04/10/18 11:52	04/10/18 14:35
300-7004-6	B3HRD9	Water	04/10/18 11:38	04/10/18 14:35
300-7004-7	B3HR02	Water	04/10/18 11:29	04/10/18 14:35
300-7004-8	B3HR07	Water	04/10/18 09:05	04/10/18 14:35
300-7004-9	B3HP65	Water	04/10/18 08:35	04/10/18 14:35
300-7004-10	B3HRP7	Water	04/10/18 08:14	04/10/18 14:35
300-7004-11	B3HP64	Water	04/10/18 07:20	04/10/18 14:35

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-7004-1

SDG Number: WC2818

Login Number: 7004

List Number: 1

Creator: Jorgenson, Briana F

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.	N/A	
Sample Preservation Verified.	N/A	
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	

