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: 300-6437-1
TestAmerica Sample Delivery Group: WC2542
Client Project/Site: X18-018

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

Attn: CPP Sample Management

Kristine D. Allen

Authorized for release by:
11/29/2017 2:45:54 PM
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Designee for

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LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples.

SAMPLE ISSUE RESOLUTION (SIR) REPORT

SIR Number: SIR18-0324
Rev. Number: 0
Date Initiated: 01/03/2018

SAMPLE EVENT INFORMATION

SAF NUM(S): X18-018

LABORATORY: TARL

SAMPLING INFORMATION

NUMBER OF SAMPLES: 2

SAMPLE NUMBERS: B3FY86, B3FY94

SAMPLE MATRIX: WATER

SDG NUM(S): WC2542

ISSUE BACKGROUND

CLASS: Chain of Custody Issue (Field)

TYPE: No/Illegible Relinquisher/Receiver Listed on COC

DESCRIPTION: COC X18-018-016, SAMPLE B3FY86; Signature missing in the first relinquished by box.
COC X18-018-020, SAMPLE B3FY94; Illegible time in the first relinquished by box.

RESOLUTION

PROPOSED RESOLUTION: DOCUMENT AND CLOSE

FINAL RESOLUTION: DOCUMENT AND CLOSE

SUBMITTED BY:

KESSINGER, AL 12/26/2017

ACCEPTED BY:

KILLAND, KE 01/03/2018

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
N	MS, MSD: Spike recovery is outside acceptance limits.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Case Narrative

Job ID: 300-6437-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-6437-1

Comments
No additional comments.

Receipt
The samples were received on 11/20/2017 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

HPLC/IC
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. # X18-018-011 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: X18-018	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: WMA T, ANION RESAMPLE 17 NOV 1	**Logbook No.:** HNF-N-506 -94/89	**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:** 15 Days PRIORITY	**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
B3FY76	N	W	11-20-17	1230	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

#6437
WC2542

300-6437 COC

Relinquished By:	Received By:
Juan Aguilar /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)	Jeff Lucas /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)
Relinquished By: Jeff Lucas /CHPRC — NOV 20 2017 — 1430 (Print First and Last Name / Signature / Date/Time)	Received By: J. Bock, TARL 11-20-17 / 1430 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (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	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X18-018-020 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: X18-018	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: WMA T, ANION RESAMPLE 17 NOV 1	**Logbook No.:** HNF-N-506 -94189	**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:** 15 Days PRIORITY	**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
B3FY94	N	W	11-20-17	1044	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

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Relinquished By:	Received By:
Juan Aguilar /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)	Jeff Lucas /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)
Jeff Lucas /CHPRC — NOV 20 2017 — 1430 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — 11-20-17 — 1430 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (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	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X18-018-017 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: X18-018	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: WMA T, ANION RESAMPLE 17 NOV 1	**Logbook No.:** HNF-N-506 -94189	**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:** 15 Days PRIORITY	**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
B3FY88	N	W	11-2017	1021	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

01/03/2018

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WC2542

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Relinquished By	Signature	Date/Time	Received By	Signature	Date/Time
Juan Aguilar /CHPRC		NOV 2 0 2017 1248	Jeff Lucas /CHPRC		NOV 2 0 2017 1248
Jeff Lucas /CHPRC		NOV 2 0 2017 1430	J. Bock, TARL		11-20-17/1430

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

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

REV. 1

01/03/2018

11/29/2017 9/19

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X18-018-016 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: X18-018	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: WMA T, ANION RESAMPLE 17 NOV 1	**Logbook No.:** HNF-N-506 - 94189	**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:** 15 Days PRIORITY	**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
B3FY86	N	W	11-20-17	0853	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

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Relinquished By:	Received By:
Juan Aguilar /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)	Jeff Lucas /CHPRC — NOV 20 2017 — 1248 (Print First and Last Name / Signature / Date/Time)
Jeff Lucas /CHPRC — NOV 20 2017 — 1430 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — 11-20-17 — 1430 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (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, WI = Wipe
W = Water, L = Liquid
O = Oil, V = Vegetation
A = Air, X = Other

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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Client Sample ID: B3FY76 — Lab Sample ID: 300-6437-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	8.3	D	0.14	0.070	mg/L	5		300.0	Total/NA
Fluoride	0.31	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.22	D	0.19	0.095	mg/L	5		300.0	Total/NA
Sulfate	36	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3FY94 — Lab Sample ID: 300-6437-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	37	D	0.28	0.14	mg/L	10		300.0	Total/NA
Fluoride	2.4	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.16	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	42	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3FY88 — Lab Sample ID: 300-6437-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	50	D	0.28	0.14	mg/L	10		300.0	Total/NA
Fluoride	2.0	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.19	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	46	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3FY86 — Lab Sample ID: 300-6437-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	31	D	0.28	0.14	mg/L	10		300.0	Total/NA
Fluoride	2.3	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.16	D N	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	56	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Client Sample ID: B3FY76 — Lab Sample ID: 300-6437-1

Date Collected: 11/20/17 12:30 — **Matrix: Water**
Date Received: 11/20/17 14:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20	D	0.40	0.20	mg/L			11/21/17 12:25	2
Nitrate as N	8.3	D	0.14	0.070	mg/L			11/21/17 15:56	5
Fluoride	0.31	D	0.10	0.050	mg/L			11/21/17 12:25	2
Nitrite as N	0.22	D	0.19	0.095	mg/L			11/21/17 15:56	5
Sulfate	36	D	0.50	0.25	mg/L			11/21/17 12:25	2

Client Sample ID: B3FY94 — Lab Sample ID: 300-6437-2

Date Collected: 11/20/17 10:44 — **Matrix: Water**
Date Received: 11/20/17 14:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21	D	0.40	0.20	mg/L			11/21/17 14:56	2
Nitrate as N	37	D	0.28	0.14	mg/L			11/21/17 18:27	10
Fluoride	2.4	D	0.10	0.050	mg/L			11/21/17 14:56	2
Nitrite as N	0.16	D N	0.076	0.038	mg/L			11/21/17 14:56	2
Sulfate	42	D	0.50	0.25	mg/L			11/21/17 14:56	2

Client Sample ID: B3FY88 — Lab Sample ID: 300-6437-3

Date Collected: 11/20/17 10:21 — **Matrix: Water**
Date Received: 11/20/17 14:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23	D	0.40	0.20	mg/L			11/21/17 15:11	2
Nitrate as N	50	D	0.28	0.14	mg/L			11/21/17 18:42	10
Fluoride	2.0	D	0.10	0.050	mg/L			11/21/17 15:11	2
Nitrite as N	0.19	D N	0.076	0.038	mg/L			11/21/17 15:11	2
Sulfate	46	D	0.50	0.25	mg/L			11/21/17 15:11	2

Client Sample ID: B3FY86 — Lab Sample ID: 300-6437-4

Date Collected: 11/20/17 08:53 — **Matrix: Water**
Date Received: 11/20/17 14:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19	D	0.40	0.20	mg/L			11/21/17 15:26	2
Nitrate as N	31	D	0.28	0.14	mg/L			11/21/17 18:57	10
Fluoride	2.3	D	0.10	0.050	mg/L			11/21/17 15:26	2
Nitrite as N	0.16	D N	0.076	0.038	mg/L			11/21/17 15:26	2
Sulfate	56	D	0.50	0.25	mg/L			11/21/17 15:26	2

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-9742/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			11/21/17 11:55	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			11/21/17 11:55	1

Lab Sample ID: LCS 300-9742/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.29		mg/L		101	80 - 120
Nitrite as N	3.04	3.15		mg/L		104	80 - 120

Lab Sample ID: 300-6437-1 MS — **Client Sample ID: B3FY76**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9742

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	8.3	D	1.13	9.76	D	mg/L		125	75 - 125
Nitrite as N	0.22	D	1.52	1.38	D	mg/L		76	75 - 125

Lab Sample ID: 300-6437-1 DU — **Client Sample ID: B3FY76**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9742

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	8.3	D	8.75	D	mg/L		5	20
Nitrite as N	0.22	D	0.218	D	mg/L		1	20

Lab Sample ID: MB 300-9743/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			11/21/17 11:55	1
Fluoride	0.025	U	0.050	0.025	mg/L			11/21/17 11:55	1
Sulfate	0.13	U	0.25	0.13	mg/L			11/21/17 11:55	1

Lab Sample ID: LCS 300-9743/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 9743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	16.0		mg/L		100	80 - 120
Fluoride	4.00	4.06		mg/L		102	80 - 120
Sulfate	20.0	20.3		mg/L		102	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-6437-1 MS **Client Sample ID: B3FY76**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 9743

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	20	D	3.20	23.2	D	mg/L		94	75 - 125		
Fluoride	0.31	D	0.800	1.09	D	mg/L		98	75 - 125		
Sulfate	36	D	4.00	39.3	D	mg/L		91	75 - 125		

Lab Sample ID: 300-6437-1 DU **Client Sample ID: B3FY76**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 9743

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	20	D		20.1	D	mg/L				0.7	20
Fluoride	0.31	D		0.306	D	mg/L				0.8	20
Sulfate	36	D		35.5	D	mg/L				0.7	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

HPLC/IC

Analysis Batch: 9742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-6437-1	B3FY76	Total/NA	Water	300.0	
300-6437-2	B3FY94	Total/NA	Water	300.0	
300-6437-2	B3FY94	Total/NA	Water	300.0	
300-6437-3	B3FY88	Total/NA	Water	300.0	
300-6437-3	B3FY88	Total/NA	Water	300.0	
300-6437-4	B3FY86	Total/NA	Water	300.0	
300-6437-4	B3FY86	Total/NA	Water	300.0	
MB 300-9742/5	Method Blank	Total/NA	Water	300.0	
LCS 300-9742/6	Lab Control Sample	Total/NA	Water	300.0	
300-6437-1 MS	B3FY76	Total/NA	Water	300.0	
300-6437-1 DU	B3FY76	Total/NA	Water	300.0	

Analysis Batch: 9743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-6437-1	B3FY76	Total/NA	Water	300.0	
300-6437-2	B3FY94	Total/NA	Water	300.0	
300-6437-3	B3FY88	Total/NA	Water	300.0	
300-6437-4	B3FY86	Total/NA	Water	300.0	
MB 300-9743/5	Method Blank	Total/NA	Water	300.0	
LCS 300-9743/6	Lab Control Sample	Total/NA	Water	300.0	
300-6437-1 MS	B3FY76	Total/NA	Water	300.0	
300-6437-1 DU	B3FY76	Total/NA	Water	300.0	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Client Sample ID: B3FY76 — Lab Sample ID: 300-6437-1

Date Collected: 11/20/17 12:30 — **Matrix: Water**
Date Received: 11/20/17 14:30

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			9743	11/21/17 12:25	ALR	TAL RCH
Total/NA	Analysis	300.0		5			9742	11/21/17 15:56	ALR	TAL RCH

Client Sample ID: B3FY94 — Lab Sample ID: 300-6437-2

Date Collected: 11/20/17 10:44 — **Matrix: Water**
Date Received: 11/20/17 14:30

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			9742	11/21/17 14:56	ALR	TAL RCH
Total/NA	Analysis	300.0		2			9743	11/21/17 14:56	ALR	TAL RCH
Total/NA	Analysis	300.0		10			9742	11/21/17 18:27	ALR	TAL RCH

Client Sample ID: B3FY88 — Lab Sample ID: 300-6437-3

Date Collected: 11/20/17 10:21 — **Matrix: Water**
Date Received: 11/20/17 14:30

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			9742	11/21/17 15:11	ALR	TAL RCH
Total/NA	Analysis	300.0		2			9743	11/21/17 15:11	ALR	TAL RCH
Total/NA	Analysis	300.0		10			9742	11/21/17 18:42	ALR	TAL RCH

Client Sample ID: B3FY86 — Lab Sample ID: 300-6437-4

Date Collected: 11/20/17 08:53 — **Matrix: Water**
Date Received: 11/20/17 14:30

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			9742	11/21/17 15:26	ALR	TAL RCH
Total/NA	Analysis	300.0		2			9743	11/21/17 15:26	ALR	TAL RCH
Total/NA	Analysis	300.0		10			9742	11/21/17 18:57	ALR	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-9742/5

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			9742	11/21/17 11:55	ALR	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Client Sample ID: Method Blank — Lab Sample ID: MB 300-9743/5

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			9743	11/21/17 11:55	ALR	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-9742/6

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			9742	11/21/17 12:10	ALR	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-9743/6

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			9743	11/21/17 12:10	ALR	TAL RCH

Client Sample ID: B3FY76 — Lab Sample ID: 300-6437-1 MS

Date Collected: 11/20/17 12:30 — **Matrix: Water**
Date Received: 11/20/17 14:30

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			9743	11/21/17 12:40	ALR	TAL RCH
Total/NA	Analysis	300.0		5			9742	11/21/17 16:11	ALR	TAL RCH

Laboratory References:

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

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X18-018

TestAmerica Job ID: 300-6437-1
SDG: WC2542

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-6437-1	B3FY76	Water	11/20/17 12:30	11/20/17 14:30
300-6437-2	B3FY94	Water	11/20/17 10:44	11/20/17 14:30
300-6437-3	B3FY88	Water	11/20/17 10:21	11/20/17 14:30
300-6437-4	B3FY86	Water	11/20/17 08:53	11/20/17 14:30

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-6437-1
SDG Number: WC2542

Login Number: 6437
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	