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: 300-3562-1
TestAmerica Sample Delivery Group: WC1299
Client Project/Site: S16-007

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600
Mail Stop R3-50
Richland, Washington 99352

Attn: CPP Sample Management

Authorized for release by:
8/18/2016 8:35:28 AM
Steven Campbell, Project Mgmt. Assistant
steven.campbell@testamericainc.com

Designee for

Whitney Ritari, Project Manager I
(509)375-3131 ext164
whitney.ritari@testamericainc.com

LINKS

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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. The sample/ sample duplicate RPD agreement is not applicable if one or both results are less than five times the MDL.

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Qualifiers

HPLC/IC

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

General Chemistry

Qualifier	Qualifier Description
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, 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)

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Job ID: 300-3562-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-3562-1

Comments
No additional comments.

Receipt
The samples were received on 7/25/2016 2:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 12.0º C.

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

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S16-007-227 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82/93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TB1	N	W	7-25-16	0949	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35TB3	Y	W	7-25-16	0949	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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WC1299

300-3562 COC

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1100		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1100
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time JUL 25 2016 1425	Received By	J. Bock, TARL		Date/Time JUL 25 2016 1425
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # S16-007-223 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82/93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35T89	N	W	7-25-16	0932	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35T91	Y	W	7-25-16	0932	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1100		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1100
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time 1425 JUL 25 2016	Received By	J. Bock, TARL	Bock	Date/Time 1425 JUL 25 2016
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # **S16-007-225**

Collector	Karen Campbell CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S16-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JULY 2016	**Logbook No.**	HNF-N-506 82 / 93	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	SURV	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35T97	Y	W	7-25-16	1015	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35T95	N	W	7-25-16	1015	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1100		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1100
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time JUL 25 2016 1425	Received By	J. Bock, TARL	Bock	Date/Time JUL 25 2016 1425
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # S16-007-232 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82 / 93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TC8	Y	W	7-25-16	1100	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35TC6	N	W	7-25-16	1100	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1240		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1240
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time JUL 25 2016 1425	Received By	J. Bock, TARL		Date/Time JUL 25 2016 1425
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # **S16-007-236**

Collector	Karen Campbell CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S16-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JULY 2016	**Logbook No.**	HNF-N-506____/_____	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TD8	Y	W	7-25-16	1130	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35TD6	N	W	7-25-16	1130	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1240		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1240
	Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1425			J. Bock, TARL	JUL 25 2016 1425

Matrix *

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

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. # S16-007-234 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82/93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TD1	N	W	7-25-16	1145	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35TD3	Y	W	7-25-16	1145	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1240		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1240
	Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1425			J. Bock, TARL	JUL 25 2016 1425

Matrix *

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

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. # **S16-007-233**

Collector	Karen Campbell CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S16-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JULY 2016	**Logbook No.**	HNF-N-506 82/93	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TD2	Y	W	7-25-16	0815	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B35TD0	N	W	7-25-16	0815	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

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WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1240		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1240
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time JUL 25 2016 1425	Received By	J. Bock, TARL	Bock	Date/Time JUL 25 2016 1425
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # **S16-007-326**

Collector	Karen Campbell CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S16-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, JULY 2016	**Logbook No.**	HNF-N-506 82/93	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35VV9	N	W	7-25-16	0932	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

#3562
WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Karen Campbell CHPRC	Karen Campbell	Karen Campbell	JUL 25 2016 1100	Troy Bacon CHPRC	Troy L. Bacon	Troy L. Bacon	JUL 25 2016 1100
Troy Bacon CHPRC	Troy L. Bacon		JUL 25 2016 1420		J. Bock, TARL	J. Bock	JUL 25 2016 1420

Matrix *

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

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. # S16-007-325 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82 / 93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority: 30 Days	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35VW0	N	W	7-25-16	1015	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

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WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1100		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1100
	Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1420		J. Bock, TARL	Bock	JUL 25 2016 1420

Matrix *

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

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. # S16-007-324 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82 93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35VW1	N	W	7-25-16	0949	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

3562
WC1299

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Karen Campbell CHPRC	Karen Campbell	JUL 25 2016 1100		Troy Bacon CHPRC	Troy L. Bacon	JUL 25 2016 1100
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	Date/Time JUL 25 2016 1425	Received By		J. Bock, TARL	Date/Time JUL 25 2016 1425
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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. # S16-007-231 Page 1 of 1

Collector	Karen Campbell CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S16-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JULY 2016	Logbook No.	HNF-N-506 82/93	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	30 Days **PRIORITY**	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A
Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35TC5	N	W	7-25-16	1100	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

3562
WC1299

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Karen Campbell CHPRC Karen Campbell	JUL 25 2016 1240	Troy Bacon CHPRC Troy L. Bacon	JUL 25 2016 1240
Troy Bacon CHPRC Troy L. Bacon	JUL 25 2016 1425	J. Bock, TARL	JUL 25 2016 1425

Matrix *

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

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: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TB1 — Lab Sample ID: 300-3562-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.12		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35TB3 — Lab Sample ID: 300-3562-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.12		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35T89 — Lab Sample ID: 300-3562-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.059		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35T91 — Lab Sample ID: 300-3562-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.058		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35T97 — Lab Sample ID: 300-3562-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.066		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35T95 — Lab Sample ID: 300-3562-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.065		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35TC8 — Lab Sample ID: 300-3562-7

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

Client Sample ID: B35TC6 — Lab Sample ID: 300-3562-8

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

Client Sample ID: B35TD8 — Lab Sample ID: 300-3562-9

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

Client Sample ID: B35TD6 — Lab Sample ID: 300-3562-10

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

Client Sample ID: B35TD1 — Lab Sample ID: 300-3562-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TD1 (Continued) — Lab Sample ID: 300-3562-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.049		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35TD3 — Lab Sample ID: 300-3562-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.049		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35TD2 — Lab Sample ID: 300-3562-13

No Detections.

Client Sample ID: B35TD0 — Lab Sample ID: 300-3562-14

No Detections.

Client Sample ID: B35VV9 — Lab Sample ID: 300-3562-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.8	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.5	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.26	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	40	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B35VW0 — Lab Sample ID: 300-3562-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	1.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.23	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	23	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B35VW1 — Lab Sample ID: 300-3562-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	3.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.21	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	30	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B35TC5 — Lab Sample ID: 300-3562-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	3.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.25	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	110	D	2.5	1.3	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TB1 — Lab Sample ID: 300-3562-1

Date Collected: 07/25/16 09:49 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.12		0.0040	0.0015	mg/L			07/25/16 16:33	1

Client Sample ID: B35TB3 — Lab Sample ID: 300-3562-2

Date Collected: 07/25/16 09:49 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.12		0.0040	0.0015	mg/L			07/25/16 16:33	1

Client Sample ID: B35T89 — Lab Sample ID: 300-3562-3

Date Collected: 07/25/16 09:32 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.059		0.0040	0.0015	mg/L			07/25/16 16:33	1

Client Sample ID: B35T91 — Lab Sample ID: 300-3562-4

Date Collected: 07/25/16 09:32 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.058		0.0040	0.0015	mg/L			07/25/16 16:34	1

Client Sample ID: B35T97 — Lab Sample ID: 300-3562-5

Date Collected: 07/25/16 10:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.066		0.0040	0.0015	mg/L			07/25/16 16:34	1

Client Sample ID: B35T95 — Lab Sample ID: 300-3562-6

Date Collected: 07/25/16 10:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.065		0.0040	0.0015	mg/L			07/25/16 16:34	1

Client Sample ID: B35TC8 — Lab Sample ID: 300-3562-7

Date Collected: 07/25/16 11:00 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.011		0.0040	0.0015	mg/L			07/25/16 16:38	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TC6 — Lab Sample ID: 300-3562-8

Date Collected: 07/25/16 11:00 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.011		0.0040	0.0015	mg/L			07/25/16 16:38	1

Client Sample ID: B35TD8 — Lab Sample ID: 300-3562-9

Date Collected: 07/25/16 11:30 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.010		0.0040	0.0015	mg/L			07/25/16 16:38	1

Client Sample ID: B35TD6 — Lab Sample ID: 300-3562-10

Date Collected: 07/25/16 11:30 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.010		0.0040	0.0015	mg/L			07/25/16 16:39	1

Client Sample ID: B35TD1 — Lab Sample ID: 300-3562-11

Date Collected: 07/25/16 11:45 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.049		0.0040	0.0015	mg/L			07/25/16 16:39	1

Client Sample ID: B35TD3 — Lab Sample ID: 300-3562-12

Date Collected: 07/25/16 11:45 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.049		0.0040	0.0015	mg/L			07/25/16 16:39	1

Client Sample ID: B35TD2 — Lab Sample ID: 300-3562-13

Date Collected: 07/25/16 08:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/25/16 16:39	1

Client Sample ID: B35TD0 — Lab Sample ID: 300-3562-14

Date Collected: 07/25/16 08:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/25/16 16:42	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35VV9

Lab Sample ID: 300-3562-15
Date Collected: 07/25/16 09:32
Matrix: Water
Date Received: 07/25/16 14:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.8	D	0.40	0.20	mg/L			07/26/16 14:00	2
Nitrate as N	2.5	D	0.056	0.028	mg/L			07/26/16 14:00	2
Fluoride	0.26	D	0.10	0.050	mg/L			07/26/16 14:00	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/26/16 14:00	2
Sulfate	40	D	0.50	0.25	mg/L			07/26/16 14:00	2

Client Sample ID: B35VW0

Lab Sample ID: 300-3562-16
Date Collected: 07/25/16 10:15
Matrix: Water
Date Received: 07/25/16 14:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9	D	0.40	0.20	mg/L			07/26/16 14:46	2
Nitrate as N	1.7	D	0.056	0.028	mg/L			07/26/16 14:46	2
Fluoride	0.23	D	0.10	0.050	mg/L			07/26/16 14:46	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/26/16 14:46	2
Sulfate	23	D	0.50	0.25	mg/L			07/26/16 14:46	2

Client Sample ID: B35VW1

Lab Sample ID: 300-3562-17
Date Collected: 07/25/16 09:49
Matrix: Water
Date Received: 07/25/16 14:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4	D	0.40	0.20	mg/L			07/26/16 15:01	2
Nitrate as N	3.7	D	0.056	0.028	mg/L			07/26/16 15:01	2
Fluoride	0.21	D	0.10	0.050	mg/L			07/26/16 15:01	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/26/16 15:01	2
Sulfate	30	D	0.50	0.25	mg/L			07/26/16 15:01	2

Client Sample ID: B35TC5

Lab Sample ID: 300-3562-18
Date Collected: 07/25/16 11:00
Matrix: Water
Date Received: 07/25/16 14:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12	D	0.40	0.20	mg/L			07/26/16 15:16	2
Nitrate as N	3.7	D	0.056	0.028	mg/L			07/26/16 15:16	2
Fluoride	0.25	D	0.10	0.050	mg/L			07/26/16 15:16	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/26/16 15:16	2
Sulfate	110	D	2.5	1.3	mg/L			07/26/16 17:48	10

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-5032/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5032

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			07/26/16 13:30	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			07/26/16 13:30	1

Lab Sample ID: LCS 300-5032/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.34		mg/L		103	80 - 120
Nitrite as N	3.04	3.19		mg/L		105	80 - 120

Lab Sample ID: 300-3562-15 MS — **Client Sample ID: B35VV9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5032

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.5	D	0.452	2.94	D	mg/L		103	75 - 125
Nitrite as N	0.038	U D	0.609	0.550	D	mg/L		90	75 - 125

Lab Sample ID: 300-3562-15 DU — **Client Sample ID: B35VV9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5032

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	2.5	D	2.45	D	mg/L		0.9	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20

Lab Sample ID: MB 300-5033/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5033

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			07/26/16 13:30	1
Fluoride	0.025	U	0.050	0.025	mg/L			07/26/16 13:30	1
Sulfate	0.13	U	0.25	0.13	mg/L			07/26/16 13:30	1

Lab Sample ID: LCS 300-5033/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	16.3		mg/L		102	80 - 120
Fluoride	4.00	4.11		mg/L		103	80 - 120
Sulfate	20.0	20.6		mg/L		103	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-3562-15 MS — **Client Sample ID: B35VV9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.8	D	3.20	10.1	D	mg/L		102	75 - 125
Fluoride	0.26	D	0.800	1.03	D	mg/L		97	75 - 125
Sulfate	40	D	4.00	44.0	D	mg/L		93	75 - 125

Lab Sample ID: 300-3562-15 DU — **Client Sample ID: B35VV9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5033

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	6.8	D	6.76	D	mg/L		0.9	20
Fluoride	0.26	D	0.261	D	mg/L		0.5	20
Sulfate	40	D	39.9	D	mg/L		0.9	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-5043/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/25/16 16:29	1

Lab Sample ID: LCS 300-5043/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.253		mg/L		101	80 - 120

Lab Sample ID: 300-3562-1 MS — **Client Sample ID: B35TB1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5043

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.12		0.0500	0.169		mg/L		97	75 - 125

Lab Sample ID: 300-3562-1 DU — **Client Sample ID: B35TB1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5043

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.12		0.122		mg/L		1	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

HPLC/IC

Analysis Batch: 5032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3562-15	B35VV9	Total/NA	Water	300.0	
300-3562-16	B35VW0	Total/NA	Water	300.0	
300-3562-17	B35VW1	Total/NA	Water	300.0	
300-3562-18	B35TC5	Total/NA	Water	300.0	
MB 300-5032/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5032/6	Lab Control Sample	Total/NA	Water	300.0	
300-3562-15 MS	B35VV9	Total/NA	Water	300.0	
300-3562-15 DU	B35VV9	Total/NA	Water	300.0	

Analysis Batch: 5033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3562-15	B35VV9	Total/NA	Water	300.0	
300-3562-16	B35VW0	Total/NA	Water	300.0	
300-3562-17	B35VW1	Total/NA	Water	300.0	
300-3562-18	B35TC5	Total/NA	Water	300.0	
300-3562-18	B35TC5	Total/NA	Water	300.0	
MB 300-5033/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5033/6	Lab Control Sample	Total/NA	Water	300.0	
300-3562-15 MS	B35VV9	Total/NA	Water	300.0	
300-3562-15 DU	B35VV9	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 5043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3562-1	B35TB1	Total/NA	Water	7196A	
300-3562-2	B35TB3	Total/NA	Water	7196A	
300-3562-3	B35T89	Total/NA	Water	7196A	
300-3562-4	B35T91	Total/NA	Water	7196A	
300-3562-5	B35T97	Total/NA	Water	7196A	
300-3562-6	B35T95	Total/NA	Water	7196A	
300-3562-7	B35TC8	Total/NA	Water	7196A	
300-3562-8	B35TC6	Total/NA	Water	7196A	
300-3562-9	B35TD8	Total/NA	Water	7196A	
300-3562-10	B35TD6	Total/NA	Water	7196A	
300-3562-11	B35TD1	Total/NA	Water	7196A	
300-3562-12	B35TD3	Total/NA	Water	7196A	
300-3562-13	B35TD2	Total/NA	Water	7196A	
300-3562-14	B35TD0	Total/NA	Water	7196A	
MB 300-5043/3	Method Blank	Total/NA	Water	7196A	
LCS 300-5043/4	Lab Control Sample	Total/NA	Water	7196A	
300-3562-1 MS	B35TB1	Total/NA	Water	7196A	
300-3562-1 DU	B35TB1	Total/NA	Water	7196A	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TB1 — Lab Sample ID: 300-3562-1

Date Collected: 07/25/16 09:49 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:33	RLC	TAL RCH

Client Sample ID: B35TB3 — Lab Sample ID: 300-3562-2

Date Collected: 07/25/16 09:49 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:33	RLC	TAL RCH

Client Sample ID: B35T89 — Lab Sample ID: 300-3562-3

Date Collected: 07/25/16 09:32 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:33	RLC	TAL RCH

Client Sample ID: B35T91 — Lab Sample ID: 300-3562-4

Date Collected: 07/25/16 09:32 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:34	RLC	TAL RCH

Client Sample ID: B35T97 — Lab Sample ID: 300-3562-5

Date Collected: 07/25/16 10:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:34	RLC	TAL RCH

Client Sample ID: B35T95 — Lab Sample ID: 300-3562-6

Date Collected: 07/25/16 10:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:34	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TC8 — Lab Sample ID: 300-3562-7

Date Collected: 07/25/16 11:00 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:38	RLC	TAL RCH

Client Sample ID: B35TC6 — Lab Sample ID: 300-3562-8

Date Collected: 07/25/16 11:00 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:38	RLC	TAL RCH

Client Sample ID: B35TD8 — Lab Sample ID: 300-3562-9

Date Collected: 07/25/16 11:30 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:38	RLC	TAL RCH

Client Sample ID: B35TD6 — Lab Sample ID: 300-3562-10

Date Collected: 07/25/16 11:30 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:39	RLC	TAL RCH

Client Sample ID: B35TD1 — Lab Sample ID: 300-3562-11

Date Collected: 07/25/16 11:45 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:39	RLC	TAL RCH

Client Sample ID: B35TD3 — Lab Sample ID: 300-3562-12

Date Collected: 07/25/16 11:45 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:39	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TD2 — Lab Sample ID: 300-3562-13

Date Collected: 07/25/16 08:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:39	RLC	TAL RCH

Client Sample ID: B35TD0 — Lab Sample ID: 300-3562-14

Date Collected: 07/25/16 08:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:42	RLC	TAL RCH

Client Sample ID: B35VV9 — Lab Sample ID: 300-3562-15

Date Collected: 07/25/16 09:32 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5032	07/26/16 14:00	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5033	07/26/16 14:00	RLC	TAL RCH

Client Sample ID: B35VW0 — Lab Sample ID: 300-3562-16

Date Collected: 07/25/16 10:15 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5032	07/26/16 14:46	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5033	07/26/16 14:46	RLC	TAL RCH

Client Sample ID: B35VW1 — Lab Sample ID: 300-3562-17

Date Collected: 07/25/16 09:49 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5032	07/26/16 15:01	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5033	07/26/16 15:01	RLC	TAL RCH

Client Sample ID: B35TC5 — Lab Sample ID: 300-3562-18

Date Collected: 07/25/16 11:00 — **Matrix: Water**
Date Received: 07/25/16 14:25

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			5032	07/26/16 15:16	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5033	07/26/16 15:16	RLC	TAL RCH
Total/NA	Analysis	300.0		10			5033	07/26/16 17:48	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: Method Blank — Lab Sample ID: MB 300-5032/5

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			5032	07/26/16 13:30	RLC	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-5033/5

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			5033	07/26/16 13:30	RLC	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-5043/3

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			5043	07/25/16 16:29	RLC	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-5032/6

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			5032	07/26/16 13:45	RLC	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-5033/6

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			5033	07/26/16 13:45	RLC	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-5043/4

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5043	07/25/16 16:30	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Client Sample ID: B35TB1

Lab Sample ID: 300-3562-1 MS

Date Collected: 07/25/16 09:49
Matrix: Water
Date Received: 07/25/16 14:25

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			5043	07/25/16 16:30	RLC	TAL RCH

Client Sample ID: B35VV9

Lab Sample ID: 300-3562-15 MS

Date Collected: 07/25/16 09:32
Matrix: Water
Date Received: 07/25/16 14:25

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			5032	07/26/16 14:16	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5033	07/26/16 14:16	RLC	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: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S16-007

TestAmerica Job ID: 300-3562-1
SDG: WC1299

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3562-1	B35TB1	Water	07/25/16 09:49	07/25/16 14:25
300-3562-2	B35TB3	Water	07/25/16 09:49	07/25/16 14:25
300-3562-3	B35T89	Water	07/25/16 09:32	07/25/16 14:25
300-3562-4	B35T91	Water	07/25/16 09:32	07/25/16 14:25
300-3562-5	B35T97	Water	07/25/16 10:15	07/25/16 14:25
300-3562-6	B35T95	Water	07/25/16 10:15	07/25/16 14:25
300-3562-7	B35TC8	Water	07/25/16 11:00	07/25/16 14:25
300-3562-8	B35TC6	Water	07/25/16 11:00	07/25/16 14:25
300-3562-9	B35TD8	Water	07/25/16 11:30	07/25/16 14:25
300-3562-10	B35TD6	Water	07/25/16 11:30	07/25/16 14:25
300-3562-11	B35TD1	Water	07/25/16 11:45	07/25/16 14:25
300-3562-12	B35TD3	Water	07/25/16 11:45	07/25/16 14:25
300-3562-13	B35TD2	Water	07/25/16 08:15	07/25/16 14:25
300-3562-14	B35TD0	Water	07/25/16 08:15	07/25/16 14:25
300-3562-15	B35VV9	Water	07/25/16 09:32	07/25/16 14:25
300-3562-16	B35VW0	Water	07/25/16 10:15	07/25/16 14:25
300-3562-17	B35VW1	Water	07/25/16 09:49	07/25/16 14:25
300-3562-18	B35TC5	Water	07/25/16 11:00	07/25/16 14:25

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3562-1
SDG Number: WC1299

Login Number: 3562
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	