JANUARY 28, 2014 REV. 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-4354-1
TestAmerica Sample Delivery Group: SL1410
Client Project/Site: S,W,I,A ,X SAFS- GROUNDWATER
Revision: 1

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: General Mailbox

Authorized for release by:
1/28/2014 10:41:29 AM

Jayna Awalt, Project Manager I
(314)298-8566
jayna.awalt@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

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Job ID: 160-4354-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
December 17, 2013
Attention: Scot Fitzgerald

SDG	: SL1410
Number of Samples	: 13 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: November 15, 2013

II. Introduction

Between November 5 and 15th, 13 water samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and receipt checklist for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: I14-001, I14-007, I14-004, S14-010

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
DUP- Laboratory Duplicate
MS- Matrix Spike
MSD- Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL.

Job ID: 160-4354-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O**- For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **M**- For inorganic analyses, the precision was outside control limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

Volatiles

Analytical Batch: 84517
Acetone was detected in method blank MB 160-84517/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been flagged "B".

Analytical Batch: 87663
Acetone was detected in method blank MB 160-87663/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been flagged "B".

The MS/MSD RPD for 2- Butanone was not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix. No further action is required.

Gasoline Range Organics

Analytical Batch: 87264
The following sample in batch 87264 contained peaks which were within the Gasoline Range Organics (GRO) retention time window: B2R488 (160-4354-2). These peaks were large enough that there is a reportable concentration; however, there is no resemblance between the reportable peak and the pattern of GRO.

Methane - RSK-175

Analytical Batch: 88163
The following samples were diluted due to abundance of target analytes: B2R508 (160-4504-1), B2R514 (160-4504-2), B2R532 (160-4504-5), B2R538 (160-4504-6). As such, elevated reporting limits (RLs) are provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

Diesel Range Organics

Analytical Batch: 92231
The CCV surrogate recovery is outside the lower QC limits indicating a potential low bias for the surrogate in the associated samples: (CCV 160-92231/10). The sample surrogate recoveries were within acceptable QC limits; therefore this excursion did not affect the data results. Results are provided with this narrative. No further action is required.

ICPMS Metals

Analytical Batch: 91405
Due to LDR failures, the linear range for beryllium (200ppb), strontium (1000ppb), molybdenum (500ppb), cadmium (1000ppb), tin (1000ppb),

Job ID: 160-4354-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

thallium (200ppb), thorium (1000ppb), and uranium (1000ppb) have been lowered. The LCS and MS/MSD were above the LDR, but were within acceptable limits.

Analytical Batch: 92050
The continuing calibration verification (CCV) for boron recovered above the upper control limit. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. (CCV 160-92050/43)

The low level check standard recovery associated with analytical batch 92050 is below the acceptance criteria for the following analyte: silver. The result was below the client required limits of 75% to 125%, but was within the normal acceptance limits of 70% to 130%. All other QC for this analyte was within acceptable limits. (CRI 160-92050/32) The data has been qualified and reported.

Ion Chromatography

Analytical Batch: 88208
Chloride was detected in method blank MB 160-88208/9 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL and was not more than 5 times the method blank, the result has been flagged "C".

The following samples were diluted to bring the concentrations of Chloride, Nitrate, and Sulfate within the calibration range in IC batch 88208: B2R488 (160-4354-2). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

Cyanide

Analytical Batch: 87430
Cyanide, Total was detected in method blank MB 160-87112/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL, the result has been flagged "C".

The %RPD for CN associated with batch 87430 was outside the control limits. RPD determinations are not applicable to values near the reporting limit (<5X RL). Precision criteria for concentrations near the reporting limit are +/- the RL.

TOX

Analytical Batch: 90982
Halogens, Total Organic was detected in method blank MB 160-90981/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate. If the associated sample reported a result above the MDL and/or RL, the result has been flagged "B".

There were no observations or nonconformances for the following methods:

ICP Metals
Sulfide
TOC

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the signature on the cover page has authorized release of the data contained in this hard copy data package.

Job ID: 160-4354-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

Problem and Discrepancy Report

TASL

SDG SL1410

1/28/14

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1. **The data package has the following issues:**

a) The Total Cyanide RPD failure is not discussed in the case narrative.

Resolution: *Provide appropriate correction.*

Lab Response:

a) Narrative revised to include statement regarding failing RPD for Total Cyanide.

Please correct the issues and resubmit the hard copy data package.

Provide a resolution to each issue noted on the report

CH2MHill Plateau Remediation Company

SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-001-029**

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I14-001	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	100KR4, OCTOBER 2013	**Logbook No.**	HNF-N-506 58 / 30	**Ice Chest No.**	GWS-295
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7970720081 05
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.
FY13 & FY14 SAFs cannot be in the same SDG.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R492	Y	W	NOV 04 2013	0550	1x500-mL G/P	6010_METALS_ICP: COMMON; ✓ 6010_METALS_ICP: GW 03 ✓	6 Months	HNO3 to pH <2
B2R488	N	W			1x500-mL P	300.0_ANIONS_IC: COMMON ✓	48 Hours	Cool~4C
B2R488	N	W			1x500-mL G/P	6010_METALS_ICP: COMMON; ✓ 6010_METALS_ICP: GW 03 ✓	6 Months	HNO3 to pH <2
B2R488	N	W			4x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01 ✓	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2R488	N	W			1x20-mL P	Activity Scan ✓	6 Months	None
B2R488	N	W			3x1-L aG	WTPH_DIESEL: COMMON; ✓ WTPH_KEROSENE: COMMON ✓	14/40 Days	HCl to pH <2/Cool~4C
B2R488	N	W			4x40-mL aGs*	WTPH_GASOLINE: COMMON ✓	14 Days	HCl to pH <2/Cool~4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SCOTT KING		Scott King	NOV 04 2013 1030	L.D. WALL	L.D. Wall		NOV 04 2013 1030
L.D. WALL	L.D. Wall		11/4/13 1400	FEDEX			
FedEx				Brian Dennis			11/5/13 09:5

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

PRINTED ON 9/4/2013

A-6004-842 (REV 2)

FedEx

797072008105

Ship (P/U) date :
Mon 11/04/2013 3:46 pm
RICHLAND, WA US

Delivered
Signed for by: B DANIELS

Actual delivery :
Tues 11/05/2013 9:03 am
EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 11/05/2013 - Tuesday		
9:03 am	Delivered	EARTH CITY, MO
7:18 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:13 am	At local FedEx facility	EARTH CITY, MO
5:28 am	At destination sort facility	BERKELEY, MO
4:38 am	Departed FedEx location	MEMPHIS, TN
12:35 am	Arrived at FedEx location	MEMPHIS, TN
- 11/04/2013 - Monday		
5:14 pm	Left FedEx origin facility	PASCO, WA
3:46 pm	Picked up	PASCO, WA
1:21 pm	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	797072008105	Service	FedEx Priority Overnight
Weight	56 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	56 lbs / 25.4 kgs
Shipper reference	GWS-295	Packaging	Your Packaging
Special handling section	Deliver Weekday; Additional Handling Surcharge		

CH2MHill Plateau Remediation Company SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-007-028**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I14-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2ZP1, NOVEMBER 2013	**Logbook No.**	HNF-N-506 61/23	**Ice Chest No.**	GWS-098
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7970829561 13
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

200 Area Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2RVY9	N	W	NOV 04 2013	1006	3x500-mL G/P	9034_SULFIDE: COMMON	7 Days	ZnAc+NaOH to pH > 9/Cool~4C
B2RVY9	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall			NOV 04 2013 1330	SSU#1			NOV 04 2013 1330
SSU-1			NOV 05 2013 0720	L.D. Wall CHPRC		R.D. Wall	NOV 05 2013 0720
L.D. Wall CHPRC		R.D. Wall	NOV 05 2013 1400	FEDEX			
FedEx				Brian Daniels			11/6/13 0910

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

PRINTED ON 9/24/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 824410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-007-082**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I14-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2ZP1, NOVEMBER 2013	**Logbook No.**	HNF-N-506 61 / 23	**Ice Chest No.**	GWS-098
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	797082956113
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

200 Area Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2T1P4	N	W	NOV 04 2013	0815	3x500-mL G/P	9034_SULFIDE: COMMON	7 Days	ZnAc+NaOH to pH > 9/Cool~4C
B2T1P4	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	[signature]	NOV 04 2013 1330	SSU#1		NOV 04 2013 1330
SSU-1		NOV 05 2013 0720	L.D. Wall CHPRC	L.D. Wall	NOV 05 2013 0720
L.D. Wall CHPRC	L.D. Wall	NOV 05 2013 1400	FEDEX		
		FedEx	Brian Daniels	[signature]	11/6/13 0900

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

PRINTED O 9/26/2013

A-6004-842 (REV 2)

47 lbs.

CH2MHill Plateau Remediation Company 821410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-007-034**

Page 1 of 1

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I14-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2ZP1, NOVEMBER 2013	**Logbook No.**	HNF-N-506 61 / 23	**Ice Chest No.**	GWS-098
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	797082956113
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

200 Area Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2RW43	N	W	NOV 04 2013	1250	3x500-mL G/P	9034_SULFIDE: COMMON	7 Days	ZnAc+NaOH to pH > 9/Cool~4C
B2RW43	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Frank Hall		NOV 04 2013 1330		SSU#1		NOV 04 2013 1330
Relinquished By	SSU-1		NOV 05 2013 0720	Received By	L.D. Wall CHPRC	L.D. Wall	Date/Time NOV 05 2013 0720
Relinquished By	L.D. Wall CHPRC	L.D. Wall	Date/Time NOV 05 2013 1400	Received By	FEDEX		Date/Time
Relinquished By			Date/Time FedEx	Received By	Brian Daniels	B.	Date/Time 11/4/13 0910

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

PRINTED O 9/26/2013

A-6004-842 (REV 2)

JANUARY 28, 2014 REV. 1

1/28/2014

FedEx

797082956113

Ship (P/U) date :
Tues 11/05/2013 3:45 pm
RICHLAND, WA US

Delivered
Signed for by: J CLARK

Actual delivery :
Wed 11/06/2013 9:16 am
EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 11/06/2013 - Wednesday		
9:16 am	Delivered	EARTH CITY, MO
7:10 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:03 am	At local FedEx facility	EARTH CITY, MO
5:07 am	At destination sort facility	BERKELEY, MO
4:16 am	Departed FedEx location	MEMPHIS, TN
12:48 am	Arrived at FedEx location	MEMPHIS, TN
- 11/05/2013 - Tuesday		
5:12 pm	Left FedEx origin facility	PASCO, WA
3:45 pm	Picked up	PASCO, WA
1:12 pm	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	797082956113	Service	FedEx Priority Overnight
Weight	47 lbs	Dimensions	16x16x18 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	47 lbs / 21.3 kgs	Shipper reference	GWS-098
Packaging	Your Packaging	Special handling section	Deliver Weekday, Additional Handling Surcharge

CH2MHill Plateau Remediation Company

SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-161**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60/22	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R508	N	W	NOV 12 2013	0906	1x20-mL P	Activity Scan	6 Months	None
B2R508	N	W	/	/	4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	Frank Hall	NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	BeBriggs	NOV 13 2013 0940
B.E. Briggs CHPRC	BeBriggs	NOV 13 2013 1400	FEDEX		
Fed Ex			Brian Daniels	B	11/14/13 0915

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

PRINTED O 9/12/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-162**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60 123	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R514	N	W	NOV 12 2013	1158	1x20-mL P	Activity Scan	6 Months	None
B2R514	N	W			4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

* AIR Bubbles IN Sample

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
	Frank Hall	NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	Be Briggs	NOV 13 2013 0940
B.E. Briggs CHPRC	Be Briggs	NOV 13 2013 1400	FEDEX		
	Fed Ex		Brian Daniels	B.	11/14/13 0915

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

PRINTED O 9/12/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-163** 36

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60 / 82	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R520	N	W	NOV 12 2013	1021	1x20-mL P	Activity Scan	6 Months	None
B2R520	N	W			4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall		NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	BeBriggs	NOV 13 2013 0940
B.E. Briggs CHPRC	BeBriggs	NOV 13 2013 1400	FEDEX		
	Fed Ex		Brian Daniels	B	11/14/13 0915

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

PRINTED O 9/12/2013

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JANUARY 28, 2014 REV. 1
1/28/2014

CH2MHill Plateau Remediation Company SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-164**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60/22	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R526	N	W	NOV 12 2013	0951	1x20-mL P	Activity Scan	6 Months	None
B2R526	N	W	/	/	4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	[signature]	NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	B. Briggs	NOV 13 2013 0940
B.E. Briggs CHPRC	B. Briggs	NOV 13 2013 1400	FEDEX		
Fed Ex			Brian Daniels	[signature]	11/14/13 0915

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

PRINTED O 9/12/2013

A-6004-842 (REV 2)

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1/28/2014

CH2MHill Plateau Remediation Company

SL410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-165**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60 / 82	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R532	N	W	NOV 12 2013	1424	1x20-mL P	Activity Scan	6 Months	None
B2R532	N	W	/	/	4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	Frank Hall	NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	Be Briggs	NOV 13 2013 0940
B.E. Briggs CHPRC	Be Briggs	NOV 13 2013 1400	FEDEX		
	Fed Ex		Brian Daniels	B-l	11/14/13 0915

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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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 84410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-010-166**

Collector	Frank Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S14-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2013	**Logbook No.**	HNF-N-506 60 / 22	**Ice Chest No.**	GWS-294
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	COMMERCIAL CARRIER	**Bill of Lading/Air Bill No.**	7971 4751 5000
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

Site-Wide Generator Knowledge Information Form applies.
Preservation reacts with sample causing bottles to break. No preservation was added.
The CACN for all analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2R538	N	W	NOV 12 2013	1314	1x20-mL P	Activity Scan	6 Months	None
B2R538	N	W	/	/	4x40-mL aGs*	RSK175_VOA: Methane (1)	14 Days	Cool~4C

* AIR IN Samples

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	[signature]	NOV 12 2013 1514	SSU #1		NOV 12 2013 1514
SSU-1		NOV 13 2013 0940	B.E. Briggs CHPRC	B. Briggs	NOV 13 2013 0940
B.E. Briggs CHPRC	B. Briggs	NOV 13 2013 1400	FEDEX		
Fed Ex			Brian Daniels	[signature]	11/14/13 09:05

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

PRINTED O 9/12/2013

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JANUARY 28, 2014 REV. 1

1/28/2014

FedEx

797147515000

Ship (P/U) date :
Wed 11/13/2013 2:59 pm
RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery :
Thur 11/14/2013 9:08 am
EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 11/14/2013 - Thursday		
9:08 am	Delivered	EARTH CITY, MO
7:24 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:18 am	At local FedEx facility	EARTH CITY, MO
4:59 am	At destination sort facility	BERKELEY, MO
4:11 am	Departed FedEx location	MEMPHIS, TN
12:33 am	Arrived at FedEx location	MEMPHIS, TN
- 11/13/2013 - Wednesday		
5:12 pm	Left FedEx origin facility	PASCO, WA
2:59 pm	Picked up	PASCO, WA
12:21 pm	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	797147515000	Service	FedEx Priority Overnight
Weight	36 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	36 lbs / 16.3 kgs
Shipper reference	GWS294	Packaging	Your Packaging
Special handling section	Deliver Weekday		

CH2MHill Plateau Remediation Company

SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-004-103**

Collector	Frank Hall	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	I14-004	**Sampling Origin**	HANFORD SITE	**Purchase Order/Charge Code**	300071ES20
Project Title	Background Study, October 2013	**Logbook No.**	HNF-N-506 60126	**Ice Chest No.**	GWS-150
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	797116373 1497
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

SPECIAL INSTRUCTIONS **Hold Time**

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2RKW1	N	W	11/14/13	1324	1x250-mL aG	9060_TOC: COMMON ✓	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2RKW1	N	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: GW 01; ✓ 6010_METALS_ICP: GW 04 ✓	6 Months	HNO3 to pH <2
B2RKW1	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None
B2RKW1	N	W	↓	↓	1x250-mL G/P	9012_CYANIDE: COMMON ✓	14 Days	NaOH to pH >=12/Cool~4C
B2RKW1	N	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: COMMON ✓	48 Hours	Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	[signature]	NOV 14 2013 1400	FEDEX		
FedEx			Brian Daniels [signature]		11/15/13 0915

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 SL1410

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I14-004-111**

Collector	Frank Hall	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	I14-004	**Sampling Origin**	HANFORD SITE	**Purchase Order/Charge Code**	300071ES20
Project Title	Background Study, October 2013	**Logbook No.**	HNF-N-506 60 26	**Ice Chest No.**	GWS-150
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7971 6373 1497
Protocol	SURV	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Contains Radioactive Material at concentrations that may or may not be 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 ☐

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.
FY13 and FY14 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2RKX0	N	W	11/14/13	0930	1x1-L aGs*	9020_TOX: COMMON ✓	28 Days	H2SO4 to pH <2/Cool~4C
B2RKX0	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None
B2RKX0	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: COMMON ✓	14 Days	HCl or H2SO4 to pH <2/Cool~4C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Hall	[signature]	NOV 14 2013 1400	FEDEX	LW. 11/14/13	~~NOV 14 2013~~
Relinquished By	FedEx	Date/Time	Received By	Brian Daniels [signature]	Date/Time 11/15/13 0915
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

PRINTED O 9/19/2013

A-6004-842 (REV 2)

FedEx.

797163731497

Ship (P/U) date :
Thur 11/14/2013 3:35 pm
RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery :
Fri 11/15/2013 9:07 am
EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 11/15/2013 - Friday		
9:07 am	Delivered	EARTH CITY, MO
6:47 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:43 am	At local FedEx facility	EARTH CITY, MO
5:10 am	At destination sort facility	BERKELEY, MO
4:20 am	Departed FedEx location	MEMPHIS, TN
12:35 am	Arrived at FedEx location	MEMPHIS, TN
- 11/14/2013 - Thursday		
5:10 pm	Left FedEx origin facility	PASCO, WA
3:35 pm	Picked up	PASCO, WA
4:25 pm	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	797163731497	Service	FedEx Priority Overnight
Weight	42 lbs	Dimensions	17x16x17 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	42 lbs / 19.1 kgs	Shipper reference	GWS-150
Packaging	Your Packaging	Special handling section	Deliver Weekday; Additional Handling Surcharge

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-4354-1
SDG Number: SL1410

Login Number: 4354
List Number: 1
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-4354-1
SDG Number: SL1410

Login Number: 4366
List Number: 1
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-4354-1
SDG Number: SL1410

Login Number: 4504
List Number: 1
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	B2R514/B2R532/B2R538 - headspace in all vials. Sample comment on chain .
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-4354-1
SDG Number: SL1410

Login Number: 4528
List Number: 1
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Analyte was found in the associated method blank as well as in the sample.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
D	The reported value is from a dilution.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
M	Sample duplicate precision not met.

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
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)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8015B	Gasoline Range Organics - (GC)	SW846	TAL SL
RSK-175	Dissolved Gases (GC)	RSK	TAL SL
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL
9020B	Organic Halides, Total (TOX)	SW846	TAL SL
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL

Protocol References:

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

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-4354-1	B2R492	Water	11/04/13 09:30	11/05/13 09:15
160-4354-2	B2R488	Water	11/04/13 09:30	11/05/13 09:15
160-4366-1	B2RVY9	Water	11/04/13 10:06	11/06/13 09:10
160-4366-2	B2T1P4	Water	11/04/13 08:15	11/06/13 09:10
160-4366-3	B2RW43	Water	11/04/13 12:50	11/06/13 09:10
160-4504-1	B2R508	Water	11/12/13 09:06	11/14/13 09:15
160-4504-2	B2R514	Water	11/12/13 11:58	11/14/13 09:15
160-4504-3	B2R520	Water	11/12/13 10:21	11/14/13 09:15
160-4504-4	B2R526	Water	11/12/13 09:51	11/14/13 09:15
160-4504-5	B2R532	Water	11/12/13 14:24	11/14/13 09:15
160-4504-6	B2R538	Water	11/12/13 13:14	11/14/13 09:15
160-4528-1	B2RKW1	Water	11/14/13 13:24	11/15/13 09:15
160-4528-2	B2RKX0	Water	11/14/13 09:30	11/15/13 09:15

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Client Sample ID: B2R492 — Lab Sample ID: 160-4354-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	39.3	B	50.0	4.0	ug/L	1		6010C	Dissolved
Calcium	88900		1000	106	ug/L	1		6010C	Dissolved
Chromium	8.7	B	10.0	3.1	ug/L	1		6010C	Dissolved
Potassium	4290	B	5000	1650	ug/L	1		6010C	Dissolved
Magnesium	14400		1000	132	ug/L	1		6010C	Dissolved
Sodium	16700		1000	324	ug/L	1		6010C	Dissolved
Nickel	129		40.0	13.3	ug/L	1		6010C	Dissolved
Strontium	377		5.0	0.54	ug/L	1		6010C	Dissolved
Zinc	6.7	B	20.0	5.2	ug/L	1		6010C	Dissolved

Client Sample ID: B2R488 — Lab Sample ID: 160-4354-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.28	J	1.0	0.10	ug/L	1		8260C	Total/NA
Gasoline Range Organics (C6-C12)	0.016	J	0.10	0.010	mg/L	1		8015B	Total/NA
Barium	38.7	B	50.0	4.0	ug/L	1		6010C	Total/NA
Calcium	85700		1000	106	ug/L	1		6010C	Total/NA
Chromium	25.4		10.0	3.1	ug/L	1		6010C	Total/NA
Iron	59.2	B	100	28.2	ug/L	1		6010C	Total/NA
Magnesium	14000		1000	132	ug/L	1		6010C	Total/NA
Nickel	109		40.0	13.3	ug/L	1		6010C	Total/NA
Potassium	4190	B	5000	1650	ug/L	1		6010C	Total/NA
Sodium	16200		1000	324	ug/L	1		6010C	Total/NA
Strontium	370		5.0	0.54	ug/L	1		6010C	Total/NA
Vanadium	4.2	B	50.0	4.1	ug/L	1		6010C	Total/NA
Fluoride	0.21		0.10	0.010	mg/L	1		300.0	Total/NA
Nitrate as N - DL	13.6	D	0.40	0.080	mg/L	20		300.0	Total/NA
Chloride - DL	72.7	D	4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	20.1	D	10.0	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: B2RVY9 — Lab Sample ID: 160-4366-1

No Detections.

Client Sample ID: B2T1P4 — Lab Sample ID: 160-4366-2

No Detections.

Client Sample ID: B2RW43 — Lab Sample ID: 160-4366-3

No Detections.

Client Sample ID: B2R508 — Lab Sample ID: 160-4504-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	90	D	10	1.4	ug/L	2		RSK-175	Total/NA

Client Sample ID: B2R514 — Lab Sample ID: 160-4504-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	2300	D	50	6.9	ug/L	10		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Client Sample ID: B2R520 — Lab Sample ID: 160-4504-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	310		5.0	0.69	ug/L	1		RSK-175	Total/NA

Client Sample ID: B2R526 — Lab Sample ID: 160-4504-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.1	J	5.0	0.69	ug/L	1		RSK-175	Total/NA

Client Sample ID: B2R532 — Lab Sample ID: 160-4504-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	3700	D	360	50	ug/L	72		RSK-175	Total/NA

Client Sample ID: B2R538 — Lab Sample ID: 160-4504-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	4600	D	360	50	ug/L	72		RSK-175	Total/NA

Client Sample ID: B2RKW1 — Lab Sample ID: 160-4528-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	29800		1000	106	ug/L	1		6010C	Total/NA
Potassium	3800	B	5000	1650	ug/L	1		6010C	Total/NA
Magnesium	10400		1000	132	ug/L	1		6010C	Total/NA
Sodium	13600		1000	324	ug/L	1		6010C	Total/NA
Silver	1.0	B	2.0	0.77	ug/L	1		6020A	Total/NA
Arsenic	2.6	B	10.0	1.2	ug/L	1		6020A	Total/NA
Boron	48.0	B	50.0	10.0	ug/L	1		6020A	Total/NA
Barium	8.8		2.0	0.22	ug/L	1		6020A	Total/NA
Cadmium	0.27	B	0.50	0.10	ug/L	1		6020A	Total/NA
Cobalt	0.29	B	2.0	0.22	ug/L	1		6020A	Total/NA
Copper	0.67	B	1.0	0.45	ug/L	1		6020A	Total/NA
Manganese	1.2	B	2.0	0.25	ug/L	1		6020A	Total/NA
Molybdenum	2.0	B	5.0	1.0	ug/L	1		6020A	Total/NA
Lead	0.36	B	3.0	0.17	ug/L	1		6020A	Total/NA
Strontium	114		5.0	0.060	ug/L	1		6020A	Total/NA
Uranium	0.94	B	1.0	0.23	ug/L	1		6020A	Total/NA
Vanadium	19.4		10.0	2.4	ug/L	1		6020A	Total/NA
Nitrate as N	0.35		0.020	0.0040	mg/L	1		300.0	Total/NA
Fluoride	0.32		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	3.7		0.20	0.020	mg/L	1		300.0	Total/NA
Sulfate	13.6		0.50	0.050	mg/L	1		300.0	Total/NA
Cyanide, Total	3.1	B M C	5.0	1.5	ug/L	1		9012B	Total/NA

Client Sample ID: B2RKX0 — Lab Sample ID: 160-4528-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.36	J B	2.0	0.34	ug/L	1		8260C	Total/NA
Halogens, Total Organic	4.3	B	5.0	1.8	ug/L	1		9020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: B2R488 **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			11/08/13 10:53	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			11/08/13 10:53	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			11/08/13 10:53	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			11/08/13 10:53	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/08/13 10:53	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			11/08/13 10:53	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			11/08/13 10:53	1
Acetone	0.34	U	2.0	0.34	ug/L			11/08/13 10:53	1
Benzene	0.060	U	1.0	0.060	ug/L			11/08/13 10:53	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			11/08/13 10:53	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			11/08/13 10:53	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			11/08/13 10:53	1
Chloroform	**0.28**	**J**	1.0	0.10	ug/L			11/08/13 10:53	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			11/08/13 10:53	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			11/08/13 10:53	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			11/08/13 10:53	1
Toluene	0.070	U	1.0	0.070	ug/L			11/08/13 10:53	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			11/08/13 10:53	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			11/08/13 10:53	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			11/08/13 10:53	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			11/08/13 10:53	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			11/08/13 10:53	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			11/08/13 10:53	1
1-Butanol	12	U	50	12	ug/L			11/08/13 10:53	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			11/08/13 10:53	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			11/08/13 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*		*11/08/13 10:53*	*1*
4-Bromofluorobenzene (Surr)	*89*		*81 - 130*		*11/08/13 10:53*	*1*
Dibromofluoromethane (Surr)	*101*		*81 - 124*		*11/08/13 10:53*	*1*
Toluene-d8 (Surr)	*100*		*87 - 128*		*11/08/13 10:53*	*1*

Client Sample ID: B2RKX0 **Lab Sample ID: 160-4528-2**
Date Collected: 11/14/13 09:30 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			11/22/13 11:42	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			11/22/13 11:42	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			11/22/13 11:42	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			11/22/13 11:42	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/13 11:42	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			11/22/13 11:42	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			11/22/13 11:42	1
Acetone	**0.36**	**J B**	2.0	0.34	ug/L			11/22/13 11:42	1
Benzene	0.060	U	1.0	0.060	ug/L			11/22/13 11:42	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			11/22/13 11:42	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			11/22/13 11:42	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			11/22/13 11:42	1
Chloroform	0.10	U	1.0	0.10	ug/L			11/22/13 11:42	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2RKX0 — **Lab Sample ID: 160-4528-2**
Date Collected: 11/14/13 09:30 — **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.090	U	1.0	0.090	ug/L			11/22/13 11:42	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			11/22/13 11:42	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			11/22/13 11:42	1
Toluene	0.070	U	1.0	0.070	ug/L			11/22/13 11:42	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			11/22/13 11:42	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			11/22/13 11:42	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			11/22/13 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*75 - 129*		*11/22/13 11:42*	*1*
4-Bromofluorobenzene (Surr)	*105*		*81 - 130*		*11/22/13 11:42*	*1*
Dibromofluoromethane (Surr)	*110*		*81 - 124*		*11/22/13 11:42*	*1*
Toluene-d8 (Surr)	*112*		*87 - 128*		*11/22/13 11:42*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: B2R488 — **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 — **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	**0.016**	**J**	0.10	0.010	mg/L			11/16/13 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*106*		*69 - 150*		*11/16/13 12:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: B2R508 — **Lab Sample ID: 160-4504-1**
Date Collected: 11/12/13 09:06 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**90**	**D**	10	1.4	ug/L			11/26/13 18:18	2

Client Sample ID: B2R514 — **Lab Sample ID: 160-4504-2**
Date Collected: 11/12/13 11:58 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**2300**	**D**	50	6.9	ug/L			11/26/13 18:32	10

Client Sample ID: B2R520 — **Lab Sample ID: 160-4504-3**
Date Collected: 11/12/13 10:21 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**310**		5.0	0.69	ug/L			11/26/13 18:47	1

Client Sample ID: B2R526 — **Lab Sample ID: 160-4504-4**
Date Collected: 11/12/13 09:51 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**1.1**	**J**	5.0	0.69	ug/L			11/26/13 19:01	1

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: B2R532 — **Lab Sample ID: 160-4504-5**
Date Collected: 11/12/13 14:24 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	3700	D	360	50	ug/L			11/26/13 19:44	72

Client Sample ID: B2R538 — **Lab Sample ID: 160-4504-6**
Date Collected: 11/12/13 13:14 — **Matrix: Water**
Date Received: 11/14/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4600	D	360	50	ug/L			11/26/13 19:59	72

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B2R488 — **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 — **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.016	U	0.47	0.016	mg/L		11/08/13 12:38	12/15/13 17:25	1
Kerosene (C9-C16)	0.0095	U	0.47	0.0095	mg/L		11/08/13 12:38	12/16/13 10:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*70*		*47 - 136*	*11/08/13 12:38*	*12/15/13 17:25*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: B2R488 — **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 — **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	4.0	U	10.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:24	1
Arsenic	2.0	U	10.0	2.0	ug/L		12/06/13 13:08	12/10/13 19:24	1
Barium	38.7	B	50.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:24	1
Beryllium	0.61	U	5.0	0.61	ug/L		12/06/13 13:08	12/10/13 19:24	1
Cadmium	0.91	U	5.0	0.91	ug/L		12/06/13 13:08	12/10/13 19:24	1
Calcium	85700		1000	106	ug/L		12/06/13 13:08	12/10/13 19:24	1
Chromium	25.4		10.0	3.1	ug/L		12/06/13 13:08	12/10/13 19:24	1
Cobalt	4.9	U	50.0	4.9	ug/L		12/06/13 13:08	12/10/13 19:24	1
Copper	4.6	U	25.0	4.6	ug/L		12/06/13 13:08	12/10/13 19:24	1
Iron	59.2	B	100	28.2	ug/L		12/06/13 13:08	12/10/13 19:24	1
Magnesium	14000		1000	132	ug/L		12/06/13 13:08	12/10/13 19:24	1
Manganese	3.3	U	15.0	3.3	ug/L		12/06/13 13:08	12/10/13 19:24	1
Nickel	109		40.0	13.3	ug/L		12/06/13 13:08	12/10/13 19:24	1
Potassium	4190	B	5000	1650	ug/L		12/06/13 13:08	12/13/13 09:12	1
Silver	6.0	U	10.0	6.0	ug/L		12/06/13 13:08	12/10/13 19:24	1
Sodium	16200		1000	324	ug/L		12/06/13 13:08	12/13/13 09:12	1
Strontium	370		5.0	0.54	ug/L		12/06/13 13:08	12/10/13 19:24	1
Vanadium	4.2	B	50.0	4.1	ug/L		12/06/13 13:08	12/10/13 19:24	1
Zinc	5.2	U	20.0	5.2	ug/L		12/06/13 13:08	12/10/13 19:24	1

Client Sample ID: B2RKW1 — **Lab Sample ID: 160-4528-1**
Date Collected: 11/14/13 13:24 — **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	29800		1000	106	ug/L		12/06/13 13:08	12/10/13 19:28	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: B2RKW1 **Lab Sample ID: 160-4528-1**
Date Collected: 11/14/13 13:24 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	28.2	U	100	28.2	ug/L		12/06/13 13:08	12/10/13 19:28	1
Potassium	**3800**	**B**	5000	1650	ug/L		12/06/13 13:08	12/13/13 09:15	1
Magnesium	**10400**		1000	132	ug/L		12/06/13 13:08	12/10/13 19:28	1
Sodium	**13600**		1000	324	ug/L		12/06/13 13:08	12/13/13 09:15	1

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B2R492 **Lab Sample ID: 160-4354-1**
Date Collected: 11/04/13 09:30 **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	6.0	U	10.0	6.0	ug/L		12/06/13 13:08	12/10/13 19:20	1
Arsenic	2.0	U	10.0	2.0	ug/L		12/06/13 13:08	12/10/13 19:20	1
Barium	**39.3**	**B**	50.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:20	1
Beryllium	0.61	U	5.0	0.61	ug/L		12/06/13 13:08	12/10/13 19:20	1
Calcium	**88900**		1000	106	ug/L		12/06/13 13:08	12/10/13 19:20	1
Cadmium	0.91	U	5.0	0.91	ug/L		12/06/13 13:08	12/10/13 19:20	1
Cobalt	4.9	U	50.0	4.9	ug/L		12/06/13 13:08	12/10/13 19:20	1
Chromium	**8.7**	**B**	10.0	3.1	ug/L		12/06/13 13:08	12/10/13 19:20	1
Copper	4.6	U	25.0	4.6	ug/L		12/06/13 13:08	12/10/13 19:20	1
Iron	28.2	U	100	28.2	ug/L		12/06/13 13:08	12/10/13 19:20	1
Potassium	**4290**	**B**	5000	1650	ug/L		12/06/13 13:08	12/13/13 09:08	1
Magnesium	**14400**		1000	132	ug/L		12/06/13 13:08	12/10/13 19:20	1
Manganese	3.3	U	15.0	3.3	ug/L		12/06/13 13:08	12/10/13 19:20	1
Sodium	**16700**		1000	324	ug/L		12/06/13 13:08	12/13/13 09:08	1
Nickel	**129**		40.0	13.3	ug/L		12/06/13 13:08	12/10/13 19:20	1
Antimony	4.0	U	10.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:20	1
Strontium	**377**		5.0	0.54	ug/L		12/06/13 13:08	12/10/13 19:20	1
Vanadium	4.1	U	50.0	4.1	ug/L		12/06/13 13:08	12/10/13 19:20	1
Zinc	**6.7**	**B**	20.0	5.2	ug/L		12/06/13 13:08	12/10/13 19:20	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B2RKW1 **Lab Sample ID: 160-4528-1**
Date Collected: 11/14/13 13:24 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**1.0**	**B**	2.0	0.77	ug/L		12/06/13 13:10	12/13/13 17:46	1
Aluminum	12.9	U	30.0	12.9	ug/L		12/06/13 13:10	12/11/13 20:05	1
Arsenic	**2.6**	**B**	10.0	1.2	ug/L		12/06/13 13:10	12/11/13 20:05	1
Boron	**48.0**	**B**	50.0	10.0	ug/L		12/06/13 13:10	12/13/13 17:46	1
Barium	**8.8**		2.0	0.22	ug/L		12/06/13 13:10	12/11/13 20:05	1
Beryllium	0.35	U	0.50	0.35	ug/L		12/06/13 13:10	12/11/13 20:05	1
Cadmium	**0.27**	**B**	0.50	0.10	ug/L		12/06/13 13:10	12/11/13 20:05	1
Cobalt	**0.29**	**B**	2.0	0.22	ug/L		12/06/13 13:10	12/11/13 20:05	1
Chromium	3.3	U	10.0	3.3	ug/L		12/06/13 13:10	12/11/13 20:05	1
Copper	**0.67**	**B**	1.0	0.45	ug/L		12/06/13 13:10	12/11/13 20:05	1
Manganese	**1.2**	**B**	2.0	0.25	ug/L		12/06/13 13:10	12/11/13 20:05	1
Molybdenum	**2.0**	**B**	5.0	1.0	ug/L		12/06/13 13:10	12/11/13 20:05	1
Nickel	0.40	U	5.0	0.40	ug/L		12/06/13 13:10	12/11/13 20:05	1

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: B2RKW1 **Lab Sample ID: 160-4528-1**
Date Collected: 11/14/13 13:24 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.36**	**B**	3.0	0.17	ug/L		12/06/13 13:10	12/11/13 20:05	1
Antimony	1.7	U	5.0	1.7	ug/L		12/06/13 13:10	12/11/13 20:05	1
Selenium	1.6	U	5.0	1.6	ug/L		12/06/13 13:10	12/11/13 20:05	1
Tin	1.0	U	2.0	1.0	ug/L		12/06/13 13:10	12/11/13 20:05	1
Strontium	**114**		5.0	0.060	ug/L		12/06/13 13:10	12/11/13 20:05	1
Thorium	0.55	U	2.0	0.55	ug/L		12/06/13 13:10	12/11/13 20:05	1
Thallium	0.55	U	2.0	0.55	ug/L		12/06/13 13:10	12/11/13 20:05	1
Uranium	**0.94**	**B**	1.0	0.23	ug/L		12/06/13 13:10	12/11/13 20:05	1
Vanadium	**19.4**		10.0	2.4	ug/L		12/06/13 13:10	12/11/13 20:05	1
Zinc	8.3	U	10.0	8.3	ug/L		12/06/13 13:10	12/11/13 20:05	1

General Chemistry

Client Sample ID: B2R488 **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			11/05/13 19:46	1
Fluoride	**0.21**		0.10	0.010	mg/L			11/05/13 19:46	1

Client Sample ID: B2RVY9 **Lab Sample ID: 160-4366-1**
Date Collected: 11/04/13 10:06 **Matrix: Water**
Date Received: 11/06/13 09:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.083	U	1.0	0.083	mg/L			11/11/13 12:29	1

Client Sample ID: B2T1P4 **Lab Sample ID: 160-4366-2**
Date Collected: 11/04/13 08:15 **Matrix: Water**
Date Received: 11/06/13 09:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.083	U	1.0	0.083	mg/L			11/11/13 12:29	1

Client Sample ID: B2RW43 **Lab Sample ID: 160-4366-3**
Date Collected: 11/04/13 12:50 **Matrix: Water**
Date Received: 11/06/13 09:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.083	U	1.0	0.083	mg/L			11/11/13 12:29	1

Client Sample ID: B2RKW1 **Lab Sample ID: 160-4528-1**
Date Collected: 11/14/13 13:24 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.35**		0.020	0.0040	mg/L			11/15/13 23:58	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			11/15/13 23:58	1
Fluoride	**0.32**		0.10	0.010	mg/L			11/15/13 23:58	1
Chloride	**3.7**		0.20	0.020	mg/L			11/15/13 23:58	1
Sulfate	**13.6**		0.50	0.050	mg/L			11/20/13 20:12	1
Cyanide, Total	**3.1**	**B M C**	5.0	1.5	ug/L		11/21/13 17:00	11/21/13 19:26	1
Total Organic Carbon	0.27	U	1.0	0.27	mg/L			12/12/13 15:34	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

General Chemistry

Client Sample ID: B2RKX0 **Lab Sample ID: 160-4528-2**
Date Collected: 11/14/13 09:30 **Matrix: Water**
Date Received: 11/15/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	4.3	B	5.0	1.8	ug/L		12/09/13 11:00	12/09/13 14:54	1

General Chemistry - DL

Client Sample ID: B2R488 **Lab Sample ID: 160-4354-2**
Date Collected: 11/04/13 09:30 **Matrix: Water**
Date Received: 11/05/13 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	13.6	D	0.40	0.080	mg/L			11/05/13 20:24	20
Chloride	72.7	D	4.0	0.40	mg/L			11/05/13 20:24	20
Sulfate	20.1	D	10.0	1.0	mg/L			11/05/13 20:24	20

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-84517/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			11/08/13 10:06	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			11/08/13 10:06	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			11/08/13 10:06	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			11/08/13 10:06	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/08/13 10:06	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			11/08/13 10:06	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			11/08/13 10:06	1
Acetone	0.364	J	2.0	0.34	ug/L			11/08/13 10:06	1
Benzene	0.060	U	1.0	0.060	ug/L			11/08/13 10:06	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			11/08/13 10:06	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			11/08/13 10:06	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			11/08/13 10:06	1
Chloroform	0.10	U	1.0	0.10	ug/L			11/08/13 10:06	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			11/08/13 10:06	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			11/08/13 10:06	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			11/08/13 10:06	1
Toluene	0.070	U	1.0	0.070	ug/L			11/08/13 10:06	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			11/08/13 10:06	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			11/08/13 10:06	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			11/08/13 10:06	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			11/08/13 10:06	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			11/08/13 10:06	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			11/08/13 10:06	1
1-Butanol	12	U	50	12	ug/L			11/08/13 10:06	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			11/08/13 10:06	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			11/08/13 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 129*		*11/08/13 10:06*	*1*
4-Bromofluorobenzene (Surr)	*94*		*81 - 130*		*11/08/13 10:06*	*1*
Dibromofluoromethane (Surr)	*104*		*81 - 124*		*11/08/13 10:06*	*1*
Toluene-d8 (Surr)	*109*		*87 - 128*		*11/08/13 10:06*	*1*

Lab Sample ID: LCS 160-84517/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	8.83		ug/L		88	85 - 116
1,1,2-Trichloroethane	10.0	8.88		ug/L		89	80 - 120
1,1-Dichloroethane	10.0	8.84		ug/L		88	80 - 120
1,1-Dichloroethene	10.0	8.92		ug/L		89	80 - 120
1,2-Dichloroethane	10.0	8.69		ug/L		87	80 - 115
2-Butanone (MEK)	10.0	9.62		ug/L		96	67 - 127
4-Methyl-2-pentanone (MIBK)	10.0	8.98		ug/L		90	75 - 126
Acetone	10.0	8.53		ug/L		85	69 - 129
Benzene	10.0	8.52		ug/L		85	80 - 120
Carbon disulfide	10.0	8.41		ug/L		84	80 - 121

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-84517/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	10.0	8.53		ug/L		85	83 - 125
Chlorobenzene	10.0	9.07		ug/L		91	80 - 120
Chloroform	10.0	8.80		ug/L		88	80 - 120
Ethylbenzene	10.0	9.25		ug/L		92	80 - 120
Methylene Chloride	10.0	8.64		ug/L		86	80 - 120
Tetrachloroethene	10.0	9.47		ug/L		95	83 - 123
Toluene	10.0	8.96		ug/L		90	80 - 120
Trichloroethene	10.0	9.00		ug/L		90	80 - 120
Vinyl chloride	10.0	9.12		ug/L		91	77 - 122
Xylenes, Total	20.0	18.8		ug/L		94	80 - 120
trans-1,2-Dichloroethylene	10.0	8.90		ug/L		89	80 - 120
cis-1,2-Dichloroethylene	10.0	8.84		ug/L		88	80 - 120
1,4-Dichlorobenzene	10.0	8.78		ug/L		88	80 - 120
1-Butanol	250	219		ug/L		88	62 - 128
Ethyl Cyanide	100	90.6		ug/L		91	77 - 121
Tetrahydrofuran	20.0	18.5		ug/L		93	71 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 129*
4-Bromofluorobenzene (Surr)	*88*		*81 - 130*
Dibromofluoromethane (Surr)	*99*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Lab Sample ID: LCSD 160-84517/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	9.11		ug/L		91	85 - 116	3	20
1,1,2-Trichloroethane	10.0	9.21		ug/L		92	80 - 120	4	20
1,1-Dichloroethane	10.0	9.09		ug/L		91	80 - 120	3	20
1,1-Dichloroethene	10.0	9.04		ug/L		90	80 - 120	1	20
1,2-Dichloroethane	10.0	9.02		ug/L		90	80 - 115	4	20
2-Butanone (MEK)	10.0	9.61		ug/L		96	67 - 127	0	20
4-Methyl-2-pentanone (MIBK)	10.0	9.61		ug/L		96	75 - 126	7	20
Acetone	10.0	10.0		ug/L		100	69 - 129	16	20
Benzene	10.0	8.81		ug/L		88	80 - 120	3	20
Carbon disulfide	10.0	8.38		ug/L		84	80 - 121	0	20
Carbon tetrachloride	10.0	8.81		ug/L		88	83 - 125	3	20
Chlorobenzene	10.0	8.98		ug/L		90	80 - 120	1	20
Chloroform	10.0	9.25		ug/L		93	80 - 120	5	20
Ethylbenzene	10.0	8.72		ug/L		87	80 - 120	6	20
Methylene Chloride	10.0	8.89		ug/L		89	80 - 120	3	20
Tetrachloroethene	10.0	9.16		ug/L		92	83 - 123	3	20
Toluene	10.0	8.91		ug/L		89	80 - 120	1	20
Trichloroethene	10.0	8.97		ug/L		90	80 - 120	0	20
Vinyl chloride	10.0	9.49		ug/L		95	77 - 122	4	20
Xylenes, Total	20.0	18.0		ug/L		90	80 - 120	4	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-84517/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethylene	10.0	9.13		ug/L		91	80 - 120	3	20
cis-1,2-Dichloroethylene	10.0	9.07		ug/L		91	80 - 120	3	20
1,4-Dichlorobenzene	10.0	8.61		ug/L		86	80 - 120	2	20
1-Butanol	250	222		ug/L		89	62 - 128	2	20
Ethyl Cyanide	100	98.3		ug/L		98	77 - 121	8	20
Tetrahydrofuran	20.0	19.4		ug/L		97	71 - 124	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*
4-Bromofluorobenzene (Surr)	*93*		*81 - 130*
Dibromofluoromethane (Surr)	*103*		*81 - 124*
Toluene-d8 (Surr)	*105*		*87 - 128*

Lab Sample ID: 160-4355-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.070	U	10.0	9.45		ug/L		95	82 - 124
1,1,2-Trichloroethane	0.15	U	10.0	8.84		ug/L		88	80 - 120
1,1-Dichloroethane	0.070	U	10.0	9.28		ug/L		93	80 - 122
1,1-Dichloroethene	0.080	U	10.0	9.64		ug/L		96	80 - 120
1,2-Dichloroethane	0.10	U	10.0	8.95		ug/L		89	80 - 120
2-Butanone (MEK)	0.52	U	10.0	8.56		ug/L		86	53 - 145
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	9.38		ug/L		94	70 - 131
Acetone	0.40	J B	10.0	8.55		ug/L		82	50 - 137
Benzene	0.15	J	10.0	9.17		ug/L		90	80 - 120
Carbon disulfide	0.050	U	10.0	9.06		ug/L		91	80 - 121
Carbon tetrachloride	0.13	U	10.0	9.40		ug/L		94	77 - 131
Chlorobenzene	0.15	U	10.0	9.47		ug/L		95	80 - 120
Chloroform	0.10	U	10.0	9.34		ug/L		93	80 - 120
Ethylbenzene	0.090	U	10.0	9.74		ug/L		97	84 - 125
Methylene Chloride	1.1		10.0	10.2		ug/L		91	80 - 120
Tetrachloroethene	0.18	U	10.0	9.74		ug/L		97	80 - 126
Toluene	0.12	J	10.0	9.15		ug/L		90	85 - 123
Trichloroethene	0.25	U	10.0	9.68		ug/L		97	81 - 125
Vinyl chloride	0.080	U	10.0	10.3		ug/L		103	70 - 129
Xylenes, Total	0.20	U	20.0	19.5		ug/L		98	80 - 120
trans-1,2-Dichloroethylene	0.080	U	10.0	9.79		ug/L		98	80 - 120
cis-1,2-Dichloroethylene	0.090	U	10.0	9.34		ug/L		93	80 - 120
1,4-Dichlorobenzene	0.12	U	10.0	9.42		ug/L		94	80 - 120
1-Butanol	12	U	250	233		ug/L		93	58 - 144
Ethyl Cyanide	1.4	U	100	97.0		ug/L		97	67 - 141
Tetrahydrofuran	1.1	U	20.0	18.2		ug/L		91	65 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-4355-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		81 - 130
Dibromofluoromethane (Surr)	106		81 - 124
Toluene-d8 (Surr)	103		87 - 128

Lab Sample ID: 160-4355-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.070	U	10.0	9.69		ug/L		97	82 - 124	2	20
1,1,2-Trichloroethane	0.15	U	10.0	9.00		ug/L		90	80 - 120	2	20
1,1-Dichloroethane	0.070	U	10.0	9.63		ug/L		96	80 - 122	4	20
1,1-Dichloroethene	0.080	U	10.0	10.1		ug/L		101	80 - 120	5	20
1,2-Dichloroethane	0.10	U	10.0	9.15		ug/L		91	80 - 120	2	20
2-Butanone (MEK)	0.52	U	10.0	9.28		ug/L		93	53 - 145	8	20
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	8.99		ug/L		90	70 - 131	4	20
Acetone	0.40	J B	10.0	7.94		ug/L		75	50 - 137	7	20
Benzene	0.15	J	10.0	9.54		ug/L		94	80 - 120	4	20
Carbon disulfide	0.050	U	10.0	9.31		ug/L		93	80 - 121	3	20
Carbon tetrachloride	0.13	U	10.0	9.58		ug/L		96	77 - 131	2	20
Chlorobenzene	0.15	U	10.0	9.77		ug/L		98	80 - 120	3	20
Chloroform	0.10	U	10.0	9.74		ug/L		97	80 - 120	4	20
Ethylbenzene	0.090	U	10.0	9.97		ug/L		100	84 - 125	2	20
Methylene Chloride	1.1		10.0	10.3		ug/L		92	80 - 120	1	20
Tetrachloroethene	0.18	U	10.0	10.1		ug/L		101	80 - 126	4	20
Toluene	0.12	J	10.0	9.55		ug/L		94	85 - 123	4	20
Trichloroethene	0.25	U	10.0	9.59		ug/L		96	81 - 125	1	20
Vinyl chloride	0.080	U	10.0	10.4		ug/L		104	70 - 129	1	20
Xylenes, Total	0.20	U	20.0	20.3		ug/L		101	80 - 120	4	20
trans-1,2-Dichloroethylene	0.080	U	10.0	10.1		ug/L		101	80 - 120	3	20
cis-1,2-Dichloroethylene	0.090	U	10.0	9.56		ug/L		96	80 - 120	2	20
1,4-Dichlorobenzene	0.12	U	10.0	9.39		ug/L		94	80 - 120	0	20
1-Butanol	12	U	250	222		ug/L		89	58 - 144	5	20
Ethyl Cyanide	1.4	U	100	96.2		ug/L		96	67 - 141	1	20
Tetrahydrofuran	1.1	U	20.0	16.8		ug/L		84	65 - 136	8	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 129
4-Bromofluorobenzene (Surr)	89		81 - 130
Dibromofluoromethane (Surr)	107		81 - 124
Toluene-d8 (Surr)	107		87 - 128

Lab Sample ID: MB 160-87663/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			11/22/13 10:54	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-87663/2 **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			11/22/13 10:54	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			11/22/13 10:54	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			11/22/13 10:54	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/13 10:54	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			11/22/13 10:54	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			11/22/13 10:54	1
Acetone	0.504	J	2.0	0.34	ug/L			11/22/13 10:54	1
Benzene	0.060	U	1.0	0.060	ug/L			11/22/13 10:54	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			11/22/13 10:54	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			11/22/13 10:54	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			11/22/13 10:54	1
Chloroform	0.10	U	1.0	0.10	ug/L			11/22/13 10:54	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			11/22/13 10:54	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			11/22/13 10:54	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			11/22/13 10:54	1
Toluene	0.070	U	1.0	0.070	ug/L			11/22/13 10:54	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			11/22/13 10:54	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			11/22/13 10:54	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			11/22/13 10:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*75 - 129*		*11/22/13 10:54*	*1*
4-Bromofluorobenzene (Surr)	*111*		*81 - 130*		*11/22/13 10:54*	*1*
Dibromofluoromethane (Surr)	*114*		*81 - 124*		*11/22/13 10:54*	*1*
Toluene-d8 (Surr)	*114*		*87 - 128*		*11/22/13 10:54*	*1*

Lab Sample ID: LCS 160-87663/10 **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	11.5		ug/L		115	85 - 116
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	80 - 120
1,1-Dichloroethane	10.0	11.1		ug/L		111	80 - 120
1,1-Dichloroethene	10.0	11.3		ug/L		113	80 - 120
1,2-Dichloroethane	10.0	11.4		ug/L		114	80 - 115
2-Butanone (MEK)	10.0	12.3		ug/L		123	67 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.3		ug/L		103	75 - 126
Acetone	10.0	12.1		ug/L		121	69 - 129
Benzene	10.0	11.1		ug/L		111	80 - 120
Carbon disulfide	10.0	11.7		ug/L		117	80 - 121
Carbon tetrachloride	10.0	11.7		ug/L		117	83 - 125
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
Chloroform	10.0	11.0		ug/L		110	80 - 120
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
Methylene Chloride	10.0	10.7		ug/L		107	80 - 120
Tetrachloroethene	10.0	10.9		ug/L		109	83 - 123
Toluene	10.0	10.7		ug/L		107	80 - 120

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-87663/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	10.0	10.7		ug/L		107	80 - 120
Vinyl chloride	10.0	10.3		ug/L		103	77 - 122
Xylenes, Total	20.0	21.8		ug/L		109	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 129*
4-Bromofluorobenzene (Surr)	*114*		*81 - 130*
Dibromofluoromethane (Surr)	*122*		*81 - 124*
Toluene-d8 (Surr)	*116*		*87 - 128*

Lab Sample ID: LCSD 160-87663/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	85 - 116	3	20
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120	2	20
1,1-Dichloroethane	10.0	10.9		ug/L		109	80 - 120	1	20
1,1-Dichloroethene	10.0	10.7		ug/L		107	80 - 120	6	20
1,2-Dichloroethane	10.0	10.7		ug/L		107	80 - 115	6	20
2-Butanone (MEK)	10.0	12.0		ug/L		120	67 - 127	2	20
4-Methyl-2-pentanone (MIBK)	10.0	10.4		ug/L		104	75 - 126	1	20
Acetone	10.0	11.2		ug/L		112	69 - 129	8	20
Benzene	10.0	11.0		ug/L		110	80 - 120	1	20
Carbon disulfide	10.0	11.3		ug/L		113	80 - 121	3	20
Carbon tetrachloride	10.0	10.9		ug/L		109	83 - 125	7	20
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120	3	20
Chloroform	10.0	11.5		ug/L		115	80 - 120	4	20
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120	4	20
Methylene Chloride	10.0	10.6		ug/L		106	80 - 120	1	20
Tetrachloroethene	10.0	10.2		ug/L		102	83 - 123	6	20
Toluene	10.0	10.6		ug/L		106	80 - 120	1	20
Trichloroethene	10.0	10.6		ug/L		106	80 - 120	1	20
Vinyl chloride	10.0	10.3		ug/L		103	77 - 122	0	20
Xylenes, Total	20.0	20.5		ug/L		103	80 - 120	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*75 - 129*
4-Bromofluorobenzene (Surr)	*113*		*81 - 130*
Dibromofluoromethane (Surr)	*117*		*81 - 124*
Toluene-d8 (Surr)	*112*		*87 - 128*

Lab Sample ID: 160-4505-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.070	U	10.0	11.2		ug/L		112	82 - 124

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-4505-B-1 MS **Client Sample ID: Matrix Spike**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	0.15	U	10.0	9.05		ug/L		91	80 - 120
1,1-Dichloroethane	0.070	U	10.0	10.7		ug/L		107	80 - 122
1,1-Dichloroethene	0.080	U	10.0	11.4		ug/L		114	80 - 120
1,2-Dichloroethane	0.10	U	10.0	9.86		ug/L		99	80 - 120
2-Butanone (MEK)	0.52	U	10.0	8.81		ug/L		88	53 - 145
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	8.53		ug/L		85	70 - 131
Acetone	0.34	U	10.0	9.44		ug/L		94	50 - 137
Benzene	0.060	U	10.0	10.9		ug/L		109	80 - 120
Carbon disulfide	0.050	U	10.0	11.8		ug/L		118	80 - 121
Carbon tetrachloride	0.13	U	10.0	11.9		ug/L		119	77 - 131
Chlorobenzene	0.15	U	10.0	10.6		ug/L		106	80 - 120
Chloroform	0.10	U	10.0	10.6		ug/L		106	80 - 120
Ethylbenzene	0.090	U	10.0	10.6		ug/L		106	84 - 125
Methylene Chloride	2.9		10.0	12.9		ug/L		101	80 - 120
Tetrachloroethene	0.18	U	10.0	11.1		ug/L		111	80 - 126
Toluene	0.070	U	10.0	10.9		ug/L		109	85 - 123
Trichloroethene	0.25	U	10.0	10.7		ug/L		107	81 - 125
Vinyl chloride	0.080	U	10.0	10.1		ug/L		101	70 - 129
Xylenes, Total	0.20	U	20.0	21.8		ug/L		109	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 129*
4-Bromofluorobenzene (Surr)	*108*		*81 - 130*
Dibromofluoromethane (Surr)	*112*		*81 - 124*
Toluene-d8 (Surr)	*110*		*87 - 128*

Lab Sample ID: 160-4505-C-1 MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.070	U	10.0	11.1		ug/L		111	82 - 124	1	20
1,1,2-Trichloroethane	0.15	U	10.0	10.1		ug/L		101	80 - 120	11	20
1,1-Dichloroethane	0.070	U	10.0	10.7		ug/L		107	80 - 122	0	20
1,1-Dichloroethene	0.080	U	10.0	11.1		ug/L		111	80 - 120	3	20
1,2-Dichloroethane	0.10	U	10.0	10.7		ug/L		107	80 - 120	9	20
2-Butanone (MEK)	0.52	U	10.0	11.4		ug/L		114	53 - 145	26	20
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	9.90		ug/L		99	70 - 131	15	20
Acetone	0.34	U	10.0	9.47		ug/L		95	50 - 137	0	20
Benzene	0.060	U	10.0	10.9		ug/L		109	80 - 120	0	20
Carbon disulfide	0.050	U	10.0	11.7		ug/L		117	80 - 121	1	20
Carbon tetrachloride	0.13	U	10.0	11.5		ug/L		115	77 - 131	4	20
Chlorobenzene	0.15	U	10.0	10.5		ug/L		105	80 - 120	0	20
Chloroform	0.10	U	10.0	10.7		ug/L		107	80 - 120	1	20
Ethylbenzene	0.090	U	10.0	10.4		ug/L		104	84 - 125	2	20
Methylene Chloride	2.9		10.0	13.5		ug/L		106	80 - 120	4	20
Tetrachloroethene	0.18	U	10.0	10.9		ug/L		109	80 - 126	2	20
Toluene	0.070	U	10.0	10.7		ug/L		107	85 - 123	2	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-4505-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87663

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	0.25	U	10.0	10.6		ug/L		106	81 - 125	1	20
Vinyl chloride	0.080	U	10.0	9.98		ug/L		100	70 - 129	1	20
Xylenes, Total	0.20	U	20.0	21.4		ug/L		107	80 - 120	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*75 - 129*
4-Bromofluorobenzene (Surr)	*106*		*81 - 130*
Dibromofluoromethane (Surr)	*116*		*81 - 124*
Toluene-d8 (Surr)	*109*		*87 - 128*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 160-87264/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87264

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	0.010	U	0.10	0.010	mg/L			11/16/13 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*69 - 150*		*11/16/13 10:37*	*1*

Lab Sample ID: LCS 160-87264/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87264

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	1.00	0.991		mg/L		99	85 - 117

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*99*		*69 - 150*

Lab Sample ID: 160-4354-2 MS — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87264

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	0.016	J	1.00	0.992		mg/L		98	58 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*100*		*69 - 150*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 160-4354-2 MSD — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87264

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)	0.016	J	1.00	0.974		mg/L		96	58 - 131	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*98*		*69 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 160-88163/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.69	U	5.0	0.69	ug/L			11/26/13 16:23	1

Lab Sample ID: LCS 160-88163/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	36.5	36.7		ug/L		101	63 - 129

Lab Sample ID: 160-4504-4 MS — **Client Sample ID: B2R526**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	1.1	J	36.5	36.0		ug/L		96	40 - 150

Lab Sample ID: 160-4504-4 MSD — **Client Sample ID: B2R526**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	1.1	J	36.5	33.6		ug/L		89	40 - 150	7	20

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 160-84271/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92231 — **Prep Batch: 84271**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.017	U	0.50	0.017	mg/L		11/08/13 12:38	12/15/13 16:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*68*		*47 - 136*	*11/08/13 12:38*	*12/15/13 16:32*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 160-84271/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92231 — **Prep Batch: 84271**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	0.010	U	0.50	0.010	mg/L		11/08/13 12:38	12/16/13 09:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*47 - 136*	*11/08/13 12:38*	*12/16/13 09:36*	*1*

Lab Sample ID: LCS 160-84271/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92231 — **Prep Batch: 84271**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.50	1.81		mg/L		73	30 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*80*		*47 - 136*

Lab Sample ID: 160-4354-2 MS — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92231 — **Prep Batch: 84271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	0.016		2.38	1.54		mg/L		65	28 - 115

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*72*		*47 - 136*

Lab Sample ID: 160-4354-2 MSD — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92231 — **Prep Batch: 84271**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	0.016		2.38	1.55		mg/L		65	28 - 115	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*69*		*47 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-90170/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91064 — **Prep Batch: 90170**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	U	10.0	2.0	ug/L		12/06/13 13:08	12/10/13 19:05	1
Barium	4.0	U	50.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:05	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 160-90170/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91064 **Prep Batch: 90170**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.61	U	5.0	0.61	ug/L		12/06/13 13:08	12/10/13 19:05	1
Cadmium	0.91	U	5.0	0.91	ug/L		12/06/13 13:08	12/10/13 19:05	1
Calcium	106	U	1000	106	ug/L		12/06/13 13:08	12/10/13 19:05	1
Chromium	3.1	U	10.0	3.1	ug/L		12/06/13 13:08	12/10/13 19:05	1
Cobalt	4.9	U	50.0	4.9	ug/L		12/06/13 13:08	12/10/13 19:05	1
Copper	4.6	U	25.0	4.6	ug/L		12/06/13 13:08	12/10/13 19:05	1
Iron	28.2	U	100	28.2	ug/L		12/06/13 13:08	12/10/13 19:05	1
Magnesium	132	U	1000	132	ug/L		12/06/13 13:08	12/10/13 19:05	1
Manganese	3.3	U	15.0	3.3	ug/L		12/06/13 13:08	12/10/13 19:05	1
Nickel	13.3	U	40.0	13.3	ug/L		12/06/13 13:08	12/10/13 19:05	1
Silver	6.0	U	10.0	6.0	ug/L		12/06/13 13:08	12/10/13 19:05	1
Antimony	4.0	U	10.0	4.0	ug/L		12/06/13 13:08	12/10/13 19:05	1
Strontium	0.54	U	5.0	0.54	ug/L		12/06/13 13:08	12/10/13 19:05	1
Vanadium	4.1	U	50.0	4.1	ug/L		12/06/13 13:08	12/10/13 19:05	1
Zinc	5.2	U	20.0	5.2	ug/L		12/06/13 13:08	12/10/13 19:05	1

Lab Sample ID: MB 160-90170/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91841 **Prep Batch: 90170**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	1650	U	5000	1650	ug/L		12/06/13 13:08	12/13/13 09:00	1
Sodium	324	U	1000	324	ug/L		12/06/13 13:08	12/13/13 09:00	1

Lab Sample ID: LCS 160-90170/2-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91064 **Prep Batch: 90170**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1050		ug/L		105	80 - 120
Barium	1000	1096		ug/L		110	80 - 120
Beryllium	1000	1045		ug/L		105	80 - 120
Cadmium	1000	1089		ug/L		109	80 - 120
Calcium	10000	11300		ug/L		113	80 - 120
Chromium	1000	1118		ug/L		112	80 - 120
Cobalt	1000	1117		ug/L		112	80 - 120
Copper	1000	1130		ug/L		113	80 - 120
Iron	10000	10110		ug/L		101	80 - 120
Magnesium	10000	9481		ug/L		95	80 - 120
Manganese	1000	1014		ug/L		101	80 - 120
Nickel	1000	1131		ug/L		113	80 - 120
Silver	200	228.2		ug/L		114	80 - 120
Antimony	500	544.9		ug/L		109	80 - 120
Strontium	1000	1120		ug/L		112	80 - 120
Vanadium	1000	1005		ug/L		101	80 - 120
Zinc	1000	1107		ug/L		111	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 160-90170/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91841 — **Prep Batch: 90170**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10000	11030		ug/L		110	80 - 120
Sodium	10000	11380		ug/L		114	80 - 120

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91064 — **Prep Batch: 90170**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.0		1000	1106		ug/L		111	75 - 125
Barium	9.2		1000	1129		ug/L		112	75 - 125
Beryllium	0.61		1000	1076		ug/L		108	75 - 125
Cadmium	0.91		1000	1136		ug/L		114	75 - 125
Calcium	29800		10000	42140		ug/L		124	75 - 125
Chromium	3.1		1000	1150		ug/L		115	75 - 125
Cobalt	4.9		1000	1152		ug/L		115	75 - 125
Copper	4.6		1000	1173		ug/L		117	75 - 125
Iron	28.2	U	10000	10370		ug/L		104	75 - 125
Magnesium	10400		10000	20580		ug/L		102	75 - 125
Manganese	3.3		1000	1041		ug/L		104	75 - 125
Nickel	13.3		1000	1170		ug/L		117	75 - 125
Silver	6.0		200	234.0		ug/L		117	75 - 125
Antimony	4.0		500	567.0		ug/L		113	75 - 125
Strontium	120		1000	1265		ug/L		115	75 - 125
Vanadium	15.9		1000	1058		ug/L		104	75 - 125
Zinc	5.2		1000	1156		ug/L		116	75 - 125

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91841 — **Prep Batch: 90170**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	3800	B	10000	15110		ug/L		113	75 - 125
Sodium	13600		10000	25900		ug/L		123	75 - 125

Lab Sample ID: 160-4528-1 MSD — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91064 — **Prep Batch: 90170**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.0		1000	1114		ug/L		111	75 - 125	1	20
Barium	9.2		1000	1121		ug/L		111	75 - 125	1	20
Beryllium	0.61		1000	1079		ug/L		108	75 - 125	0	20
Cadmium	0.91		1000	1137		ug/L		114	75 - 125	0	20
Calcium	29800		10000	41610		ug/L		118	75 - 125	1	20
Chromium	3.1		1000	1137		ug/L		114	75 - 125	1	20
Cobalt	4.9		1000	1161		ug/L		116	75 - 125	1	20
Copper	4.6		1000	1177		ug/L		118	75 - 125	0	20
Iron	28.2	U	10000	10380		ug/L		104	75 - 125	0	20
Magnesium	10400		10000	20620		ug/L		103	75 - 125	0	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-4528-1 MSD **Client Sample ID: B2RKW1**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91064 **Prep Batch: 90170**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	3.3		1000	1042		ug/L		104	75 - 125	0	20
Nickel	13.3		1000	1172		ug/L		117	75 - 125	0	20
Silver	6.0		200	231.7		ug/L		116	75 - 125	1	20
Antimony	4.0		500	570.5		ug/L		114	75 - 125	1	20
Strontium	120		1000	1257		ug/L		114	75 - 125	1	20
Vanadium	15.9		1000	1054		ug/L		104	75 - 125	0	20
Zinc	5.2		1000	1159		ug/L		116	75 - 125	0	20

Lab Sample ID: 160-4528-1 MSD **Client Sample ID: B2RKW1**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91841 **Prep Batch: 90170**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	3800	B	10000	15070		ug/L		113	75 - 125	0	20
Sodium	13600		10000	25700		ug/L		121	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-90171/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91405 **Prep Batch: 90171**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12.9	U	30.0	12.9	ug/L		12/06/13 13:10	12/11/13 19:52	1
Arsenic	1.2	U	10.0	1.2	ug/L		12/06/13 13:10	12/11/13 19:52	1
Barium	0.22	U	2.0	0.22	ug/L		12/06/13 13:10	12/11/13 19:52	1
Beryllium	0.35	U	0.50	0.35	ug/L		12/06/13 13:10	12/11/13 19:52	1
Cadmium	0.10	U	0.50	0.10	ug/L		12/06/13 13:10	12/11/13 19:52	1
Cobalt	0.22	U	2.0	0.22	ug/L		12/06/13 13:10	12/11/13 19:52	1
Chromium	3.3	U	10.0	3.3	ug/L		12/06/13 13:10	12/11/13 19:52	1
Copper	0.45	U	1.0	0.45	ug/L		12/06/13 13:10	12/11/13 19:52	1
Manganese	0.25	U	2.0	0.25	ug/L		12/06/13 13:10	12/11/13 19:52	1
Molybdenum	1.0	U	5.0	1.0	ug/L		12/06/13 13:10	12/11/13 19:52	1
Nickel	0.40	U	5.0	0.40	ug/L		12/06/13 13:10	12/11/13 19:52	1
Lead	0.17	U	3.0	0.17	ug/L		12/06/13 13:10	12/11/13 19:52	1
Antimony	1.7	U	5.0	1.7	ug/L		12/06/13 13:10	12/11/13 19:52	1
Selenium	1.6	U	5.0	1.6	ug/L		12/06/13 13:10	12/11/13 19:52	1
Tin	1.0	U	2.0	1.0	ug/L		12/06/13 13:10	12/11/13 19:52	1
Strontium	0.060	U	5.0	0.060	ug/L		12/06/13 13:10	12/11/13 19:52	1
Thorium	0.55	U	2.0	0.55	ug/L		12/06/13 13:10	12/11/13 19:52	1
Thallium	0.55	U	2.0	0.55	ug/L		12/06/13 13:10	12/11/13 19:52	1
Uranium	0.23	U	1.0	0.23	ug/L		12/06/13 13:10	12/11/13 19:52	1
Vanadium	2.4	U	10.0	2.4	ug/L		12/06/13 13:10	12/11/13 19:52	1
Zinc	8.3	U	10.0	8.3	ug/L		12/06/13 13:10	12/11/13 19:52	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 160-90171/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92050 — **Prep Batch: 90171**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.77	U	2.0	0.77	ug/L		12/06/13 13:10	12/13/13 17:33	1
Boron	10.0	U	50.0	10.0	ug/L		12/06/13 13:10	12/13/13 17:33	1

Lab Sample ID: LCS 160-90171/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91405 — **Prep Batch: 90171**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9776		ug/L		98	80 - 120
Arsenic	1000	1016		ug/L		102	80 - 120
Barium	1000	1060		ug/L		106	80 - 120
Beryllium	1000	1130		ug/L		113	80 - 120
Cadmium	1000	1060		ug/L		106	80 - 120
Cobalt	1000	1059		ug/L		106	80 - 120
Chromium	1000	1014		ug/L		101	80 - 120
Copper	1000	1081		ug/L		108	80 - 120
Manganese	1000	1049		ug/L		105	80 - 120
Molybdenum	500	543.5		ug/L		109	80 - 120
Nickel	1000	1034		ug/L		103	80 - 120
Lead	1000	1043		ug/L		104	80 - 120
Antimony	500	529.4		ug/L		106	80 - 120
Selenium	500	482.8		ug/L		97	80 - 120
Tin	1000	1081		ug/L		108	80 - 120
Strontium	1000	1058		ug/L		106	80 - 120
Thorium	1000	1040		ug/L		104	80 - 120
Thallium	200	215.9		ug/L		108	80 - 120
Uranium	1000	1052		ug/L		105	80 - 120
Vanadium	1000	1012		ug/L		101	80 - 120
Zinc	1000	1008		ug/L		101	80 - 120

Lab Sample ID: LCS 160-90171/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92050 — **Prep Batch: 90171**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	200	215.7		ug/L		108	80 - 120
Boron	2000	2243		ug/L		112	80 - 120

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91405 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	12.9	U	10000	9993		ug/L		100	75 - 125
Arsenic	2.6	B	1000	1013		ug/L		101	75 - 125
Barium	8.8		1000	1074		ug/L		107	75 - 125
Beryllium	0.35	U	1000	1144		ug/L		114	75 - 125
Cadmium	0.27	B	1000	1105		ug/L		110	75 - 125
Cobalt	0.29	B	1000	1051		ug/L		105	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91405 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	3.3	U	1000	1037		ug/L		104	75 - 125
Copper	0.67	B	1000	1071		ug/L		107	75 - 125
Manganese	1.2	B	1000	1085		ug/L		108	75 - 125
Molybdenum	2.0	B	500	545.1		ug/L		109	75 - 125
Nickel	0.40	U	1000	1026		ug/L		103	75 - 125
Lead	0.36	B	1000	1070		ug/L		107	75 - 125
Antimony	1.7	U	500	553.4		ug/L		111	75 - 125
Selenium	1.6	U	500	478.3		ug/L		96	75 - 125
Tin	1.0	U	1000	1132		ug/L		113	75 - 125
Strontium	114		1000	1174		ug/L		106	75 - 125
Thorium	0.55	U	1000	1084		ug/L		108	75 - 125
Thallium	0.55	U	200	222.6		ug/L		111	75 - 125
Uranium	0.94	B	1000	1088		ug/L		109	75 - 125
Vanadium	19.4		1000	1068		ug/L		105	75 - 125
Zinc	8.3	U	1000	1005		ug/L		100	75 - 125

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92050 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.0	B	200	215.7		ug/L		107	75 - 125
Boron	48.0	B	2000	2402		ug/L		118	75 - 125

Lab Sample ID: 160-4528-1 MSD — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91405 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	12.9	U	10000	9835		ug/L		98	75 - 125	2	20
Arsenic	2.6	B	1000	994.1		ug/L		99	75 - 125	2	20
Barium	8.8		1000	1065		ug/L		106	75 - 125	1	20
Beryllium	0.35	U	1000	1110		ug/L		111	75 - 125	3	20
Cadmium	0.27	B	1000	1068		ug/L		107	75 - 125	3	20
Cobalt	0.29	B	1000	1021		ug/L		102	75 - 125	3	20
Chromium	3.3	U	1000	1034		ug/L		103	75 - 125	0	20
Copper	0.67	B	1000	1043		ug/L		104	75 - 125	3	20
Manganese	1.2	B	1000	1046		ug/L		104	75 - 125	4	20
Molybdenum	2.0	B	500	529.4		ug/L		105	75 - 125	3	20
Nickel	0.40	U	1000	991.7		ug/L		99	75 - 125	3	20
Lead	0.36	B	1000	1067		ug/L		107	75 - 125	0	20
Antimony	1.7	U	500	538.0		ug/L		108	75 - 125	3	20
Selenium	1.6	U	500	459.4		ug/L		92	75 - 125	4	20
Tin	1.0	U	1000	1112		ug/L		111	75 - 125	2	20
Strontium	114		1000	1144		ug/L		103	75 - 125	3	20
Thorium	0.55	U	1000	1064		ug/L		106	75 - 125	2	20
Thallium	0.55	U	200	220.6		ug/L		110	75 - 125	1	20
Uranium	0.94	B	1000	1072		ug/L		107	75 - 125	1	20
Vanadium	19.4		1000	1053		ug/L		103	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-4528-1 MSD — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91405 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	8.3	U	1000	985.2		ug/L		99	75 - 125	2	20

Lab Sample ID: 160-4528-1 MSD — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 92050 — **Prep Batch: 90171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	1.0	B	200	214.7		ug/L		107	75 - 125	0	20
Boron	48.0	B	2000	2415		ug/L		118	75 - 125	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-88208/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			11/05/13 18:29	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			11/05/13 18:29	1
Fluoride	0.010	U	0.10	0.010	mg/L			11/05/13 18:29	1
Chloride	0.0311	B	0.20	0.020	mg/L			11/05/13 18:29	1
Sulfate	0.050	U	0.50	0.050	mg/L			11/05/13 18:29	1

Lab Sample ID: LCS 160-88208/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.402		mg/L		100	90 - 110
Nitrite as N	0.160	0.159		mg/L		99	90 - 110
Fluoride	1.00	0.986		mg/L		99	90 - 110
Chloride	2.00	1.96		mg/L		98	90 - 110
Sulfate	8.00	7.91		mg/L		99	90 - 110

Lab Sample ID: 160-4354-2 MS — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.0030	U	0.100	0.0966		mg/L		97	90 - 110
Fluoride	0.21		2.00	2.09		mg/L		94	90 - 110

Lab Sample ID: 160-4354-2 DU — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrite as N	0.0030	U	0.0030	U	mg/L		NC	20
Fluoride	0.21		0.211		mg/L		0.7	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 160-88825/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			11/20/13 15:29	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			11/20/13 15:29	1
Fluoride	0.010	U	0.10	0.010	mg/L			11/20/13 15:29	1
Chloride	0.020	U	0.20	0.020	mg/L			11/20/13 15:29	1
Sulfate	0.050	U	0.50	0.050	mg/L			11/20/13 15:29	1

Lab Sample ID: LCS 160-88825/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.397		mg/L		99	90 - 110
Nitrite as N	0.160	0.164		mg/L		102	90 - 110
Fluoride	1.00	0.980		mg/L		98	90 - 110
Chloride	2.00	1.93		mg/L		97	90 - 110
Sulfate	8.00	7.74		mg/L		97	90 - 110

Lab Sample ID: MB 160-90304/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			11/15/13 22:33	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			11/15/13 22:33	1
Fluoride	0.010	U	0.10	0.010	mg/L			11/15/13 22:33	1
Chloride	0.020	U	0.20	0.020	mg/L			11/15/13 22:33	1

Lab Sample ID: LCS 160-90304/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.404		mg/L		101	90 - 110
Nitrite as N	0.160	0.158		mg/L		99	90 - 110
Fluoride	1.00	0.982		mg/L		98	90 - 110
Chloride	2.00	1.90		mg/L		95	90 - 110

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.35		0.400	0.731		mg/L		95	90 - 110
Nitrite as N	0.0030	U	0.100	0.0935		mg/L		93	90 - 110
Fluoride	0.32		2.00	2.38		mg/L		103	90 - 110
Chloride	3.7		2.00	5.73		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-4528-1 DU — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90304

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	0.35			0.355		mg/L				0.9	20
Nitrite as N	0.0030	U		0.0030	U	mg/L				NC	20
Fluoride	0.32			0.317		mg/L				0.7	20
Chloride	3.7			3.66		mg/L				0.05	20

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-4354-2 MS — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N - DL	13.6	D	8.00	21.45		mg/L		99	90 - 110		
Chloride - DL	72.7	D	40.0	114.8		mg/L		105	90 - 110		
Sulfate - DL	20.1	D	80.0	98.02		mg/L		97	90 - 110		

Lab Sample ID: 160-4354-2 DU — **Client Sample ID: B2R488**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88208

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N - DL	13.6	D		13.62		mg/L				0.5	20
Chloride - DL	72.7	D		73.65		mg/L				1	20
Sulfate - DL	20.1	D		20.39		mg/L				1	20

Lab Sample ID: 160-4584-A-5 MS ^20 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate - DL	83.3		80.0	163.7		mg/L		101	90 - 110		

Lab Sample ID: 160-4584-A-5 MSD ^20 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 88825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate - DL	83.3		80.0	163.1		mg/L		100	90 - 110	0	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 160-87112/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87430 — **Prep Batch: 87112**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.65	B	5.0	1.5	ug/L		11/21/13 17:00	11/21/13 19:09	1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: HLCS 160-87112/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87430 — **Prep Batch: 87112**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	400	377.4		ug/L		94	85 - 115

Lab Sample ID: LCS 160-87112/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87430 — **Prep Batch: 87112**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	200	198.0		ug/L		99	85 - 115

Lab Sample ID: 160-4528-1 MS — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87430 — **Prep Batch: 87112**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	3.1	B M C	200	199.0		ug/L		98	66 - 120

Lab Sample ID: 160-4528-1 DU — **Client Sample ID: B2RKW1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 87430 — **Prep Batch: 87112**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	3.1	B M C	3.90	B M	ug/L		24	20

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 160-90981/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90982 — **Prep Batch: 90981**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	3.62	B	5.0	1.8	ug/L		12/09/13 10:00	12/09/13 13:46	1

Lab Sample ID: LCS 160-90981/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90982 — **Prep Batch: 90981**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	100	95.12		ug/L		95	90 - 116

Lab Sample ID: 160-4528-2 MS — **Client Sample ID: B2RKX0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90982 — **Prep Batch: 90981**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	4.3	B	100	97.34		ug/L		93	85 - 117

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: 160-4528-2 DU — **Client Sample ID: B2RKX0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 90982 — **Prep Batch: 90981**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Halogens, Total Organic	4.3	B		5.06		ug/L				16	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 160-84551/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84551

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.083	U	1.0	0.083	mg/L			11/11/13 12:29	1

Lab Sample ID: LCS 160-84551/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84551

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			10.0	11.00		mg/L		110	70 - 130		

Lab Sample ID: 160-4366-1 MS — **Client Sample ID: B2RVY9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84551

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	0.083	U	10.0	9.60		mg/L		96	70 - 130		

Lab Sample ID: 160-4366-1 DU — **Client Sample ID: B2RVY9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 84551

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	0.083	U		0.083	U	mg/L				NC	20

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 160-91832/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.27	U	1.0	0.27	mg/L			12/12/13 14:22	1

Lab Sample ID: LCS 160-91832/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 91832

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	10.01		mg/L		100	90 - 110		

Method: 9060 - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 160-4528-1 MS **Client Sample ID: B2RKW1**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91832

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	0.27	U	5.00	5.07		mg/L		101	76 - 120		

Lab Sample ID: 160-4528-1 DU **Client Sample ID: B2RKW1**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 91832

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	0.27	U		0.27	U	mg/L				NC	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

GC/MS VOA

Analysis Batch: 84517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2	B2R488	Total/NA	Water	8260C	
160-4355-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-4355-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
LCS 160-84517/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-84517/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-84517/2	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 87663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4505-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-4505-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
160-4528-2	B2RKX0	Total/NA	Water	8260C	
LCS 160-87663/10	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-87663/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-87663/2	Method Blank	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 87264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2	B2R488	Total/NA	Water	8015B	
160-4354-2 MS	B2R488	Total/NA	Water	8015B	
160-4354-2 MSD	B2R488	Total/NA	Water	8015B	
LCS 160-87264/8	Lab Control Sample	Total/NA	Water	8015B	
MB 160-87264/1	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 88163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4504-1	B2R508	Total/NA	Water	RSK-175	
160-4504-2	B2R514	Total/NA	Water	RSK-175	
160-4504-3	B2R520	Total/NA	Water	RSK-175	
160-4504-4	B2R526	Total/NA	Water	RSK-175	
160-4504-4 MS	B2R526	Total/NA	Water	RSK-175	
160-4504-4 MSD	B2R526	Total/NA	Water	RSK-175	
160-4504-5	B2R532	Total/NA	Water	RSK-175	
160-4504-6	B2R538	Total/NA	Water	RSK-175	
LCS 160-88163/10	Lab Control Sample	Total/NA	Water	RSK-175	
MB 160-88163/9	Method Blank	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 84271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2	B2R488	Total/NA	Water	3510C	
160-4354-2 MS	B2R488	Total/NA	Water	3510C	
160-4354-2 MSD	B2R488	Total/NA	Water	3510C	
LCS 160-84271/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 160-84271/1-A	Method Blank	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Analysis Batch: 92231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2	B2R488	Total/NA	Water	8015B	84271
160-4354-2	B2R488	Total/NA	Water	8015B	84271
160-4354-2 MS	B2R488	Total/NA	Water	8015B	84271
160-4354-2 MSD	B2R488	Total/NA	Water	8015B	84271
LCS 160-84271/2-A	Lab Control Sample	Total/NA	Water	8015B	84271
MB 160-84271/1-A	Method Blank	Total/NA	Water	8015B	84271
MB 160-84271/1-A	Method Blank	Total/NA	Water	8015B	84271

Metals

Prep Batch: 90170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-1	B2R492	Dissolved	Water	3010A	
160-4354-2	B2R488	Total/NA	Water	3010A	
160-4528-1	B2RKW1	Total/NA	Water	3010A	
160-4528-1 MS	B2RKW1	Total/NA	Water	3010A	
160-4528-1 MSD	B2RKW1	Total/NA	Water	3010A	
LCS 160-90170/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-90170/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 90171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	3010A	
160-4528-1 MS	B2RKW1	Total/NA	Water	3010A	
160-4528-1 MSD	B2RKW1	Total/NA	Water	3010A	
LCS 160-90171/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-90171/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 91064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-1	B2R492	Dissolved	Water	6010C	90170
160-4354-2	B2R488	Total/NA	Water	6010C	90170
160-4528-1	B2RKW1	Total/NA	Water	6010C	90170
160-4528-1 MS	B2RKW1	Total/NA	Water	6010C	90170
160-4528-1 MSD	B2RKW1	Total/NA	Water	6010C	90170
LCS 160-90170/2-A	Lab Control Sample	Total/NA	Water	6010C	90170
MB 160-90170/1-A	Method Blank	Total/NA	Water	6010C	90170

Analysis Batch: 91405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	6020A	90171
160-4528-1 MS	B2RKW1	Total/NA	Water	6020A	90171
160-4528-1 MSD	B2RKW1	Total/NA	Water	6020A	90171
LCS 160-90171/2-A	Lab Control Sample	Total/NA	Water	6020A	90171
MB 160-90171/1-A	Method Blank	Total/NA	Water	6020A	90171

Analysis Batch: 91841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-1	B2R492	Dissolved	Water	6010C	90170
160-4354-2	B2R488	Total/NA	Water	6010C	90170

Metals (Continued)

Analysis Batch: 91841 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	6010C	90170
160-4528-1 MS	B2RKW1	Total/NA	Water	6010C	90170
160-4528-1 MSD	B2RKW1	Total/NA	Water	6010C	90170
LCS 160-90170/2-A	Lab Control Sample	Total/NA	Water	6010C	90170
MB 160-90170/1-A	Method Blank	Total/NA	Water	6010C	90170

Analysis Batch: 92050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	6020A	90171
160-4528-1 MS	B2RKW1	Total/NA	Water	6020A	90171
160-4528-1 MSD	B2RKW1	Total/NA	Water	6020A	90171
LCS 160-90171/2-A	Lab Control Sample	Total/NA	Water	6020A	90171
MB 160-90171/1-A	Method Blank	Total/NA	Water	6020A	90171

General Chemistry

Analysis Batch: 84551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4366-1	B2RVY9	Total/NA	Water	9034	
160-4366-1 DU	B2RVY9	Total/NA	Water	9034	
160-4366-1 MS	B2RVY9	Total/NA	Water	9034	
160-4366-2	B2T1P4	Total/NA	Water	9034	
160-4366-3	B2RW43	Total/NA	Water	9034	
LCS 160-84551/2	Lab Control Sample	Total/NA	Water	9034	
MB 160-84551/1	Method Blank	Total/NA	Water	9034	

Prep Batch: 87112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	9010C	
160-4528-1 DU	B2RKW1	Total/NA	Water	9010C	
160-4528-1 MS	B2RKW1	Total/NA	Water	9010C	
HLCS 160-87112/3-A	Lab Control Sample	Total/NA	Water	9010C	
LCS 160-87112/2-A	Lab Control Sample	Total/NA	Water	9010C	
MB 160-87112/1-A	Method Blank	Total/NA	Water	9010C	

Analysis Batch: 87430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	9012B	87112
160-4528-1 DU	B2RKW1	Total/NA	Water	9012B	87112
160-4528-1 MS	B2RKW1	Total/NA	Water	9012B	87112
HLCS 160-87112/3-A	Lab Control Sample	Total/NA	Water	9012B	87112
LCS 160-87112/2-A	Lab Control Sample	Total/NA	Water	9012B	87112
MB 160-87112/1-A	Method Blank	Total/NA	Water	9012B	87112

Analysis Batch: 88208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2	B2R488	Total/NA	Water	300.0	
160-4354-2 - DL	B2R488	Total/NA	Water	300.0	
160-4354-2 DU	B2R488	Total/NA	Water	300.0	
160-4354-2 DU - DL	B2R488	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 88208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4354-2 MS	B2R488	Total/NA	Water	300.0	
160-4354-2 MS - DL	B2R488	Total/NA	Water	300.0	
LCS 160-88208/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-88208/9	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 88825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	300.0	
160-4584-A-5 MS ^20 - DL	Matrix Spike	Total/NA	Water	300.0	
160-4584-A-5 MSD ^20 - DL	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 160-88825/4	Lab Control Sample	Total/NA	Water	300.0	
MB 160-88825/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 90304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	300.0	
160-4528-1 DU	B2RKW1	Total/NA	Water	300.0	
160-4528-1 MS	B2RKW1	Total/NA	Water	300.0	
LCS 160-90304/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-90304/9	Method Blank	Total/NA	Water	300.0	

Prep Batch: 90981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-2	B2RKX0	Total/NA	Water	Carbon Trap	
160-4528-2 DU	B2RKX0	Total/NA	Water	Carbon Trap	
160-4528-2 MS	B2RKX0	Total/NA	Water	Carbon Trap	
LCS 160-90981/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
MB 160-90981/1-A	Method Blank	Total/NA	Water	Carbon Trap	

Analysis Batch: 90982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-2	B2RKX0	Total/NA	Water	9020B	90981
160-4528-2 DU	B2RKX0	Total/NA	Water	9020B	90981
160-4528-2 MS	B2RKX0	Total/NA	Water	9020B	90981
LCS 160-90981/2-A	Lab Control Sample	Total/NA	Water	9020B	90981
MB 160-90981/1-A	Method Blank	Total/NA	Water	9020B	90981

Analysis Batch: 91832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4528-1	B2RKW1	Total/NA	Water	9060	
160-4528-1 DU	B2RKW1	Total/NA	Water	9060	
160-4528-1 MS	B2RKW1	Total/NA	Water	9060	
LCS 160-91832/5	Lab Control Sample	Total/NA	Water	9060	
MB 160-91832/4	Method Blank	Total/NA	Water	9060	

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-4354-1
SDG: SL1410

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-129)	(81-130)	(81-124)	(87-128)
160-4354-2	B2R488	93	89	101	100
160-4355-B-1 MS	Matrix Spike	93	90	106	103
160-4355-C-1 MSD	Matrix Spike Duplicate	94	89	107	107
160-4505-B-1 MS	Matrix Spike	104	108	112	110
160-4505-C-1 MSD	Matrix Spike Duplicate	114	106	116	109
160-4528-2	B2RKX0	111	105	110	112
LCS 160-84517/4	Lab Control Sample	88	88	99	104
LCS 160-87663/10	Lab Control Sample	116	114	122	116
LCSD 160-84517/5	Lab Control Sample Dup	93	93	103	105
LCSD 160-87663/4	Lab Control Sample Dup	113	113	117	112
MB 160-84517/2	Method Blank	95	94	104	109
MB 160-87663/2	Method Blank	115	111	114	114

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFT1
Lab Sample ID	Client Sample ID	(69-150)
160-4354-2	B2R488	106
160-4354-2 MS	B2R488	100
160-4354-2 MSD	B2R488	98
LCS 160-87264/8	Lab Control Sample	99
MB 160-87264/1	Method Blank	108

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH1
Lab Sample ID	Client Sample ID	(47-136)
160-4354-2	B2R488	70
160-4354-2 MS	B2R488	72
160-4354-2 MSD	B2R488	69
LCS 160-84271/2-A	Lab Control Sample	80
MB 160-84271/1-A	Method Blank	77
MB 160-84271/1-A	Method Blank	68

Surrogate Legend

OTPH = o-Terphenyl