

DECEMBER 14, 2012

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: 160-940-1

TestAmerica Sample Delivery Group: SL1333
Client Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

For:

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

Attn: General Mailbox



Authorized for release by:
12/14/2012 11:39:20 AM

Jayna Awalt
Project Manager I
jayna.awalt@testamericainc.com

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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.

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Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	5
Receipt Checklists	8
Definitions/Glossary	9
Method Summary	10
Sample Summary	11
Detection Summary	12
Client Sample Results	13
QC Sample Results	14
QC Association Summary	16
Surrogate Summary	17

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Job ID: 160-940-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
December 14, 2012
Attention: Scot Fitzgerald

SDG : SL1333
Number of Samples : 1 sample
Sample Matrix : Water
Data Deliverable : Summary
Date SDG Closed : November 17, 2012

II. Introduction

On November 17, 2012, 1 water sample was received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms 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: W13-010

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.



Job ID: 160-940-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

- **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.
- **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.

Phenols

Batch: 17879/20487

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 17879. An LCS/LCSD was performed to demonstrate accuracy and replicate precision.

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.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager



CH2M Hill Plateau Remediation Company SL1333 CWP 455		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST C.O.C.# W13-010-115 Page 1 of 1	
Collector AL MCINTYRE / CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. W13-010	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title RCRA, OCTOBER 2012	Logbook No. HNF-N-506 51 / 50	Ice Chest No. GWS-150 76 1949	
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7940 9659429	
Protocol RCRA	Priority: 30 Days	Offsite Property No. N/A	Date 11/16/12
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			
SPECIAL INSTRUCTIONS FY12 and FY13 samples cannot be in the same SDG. Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No. B2M1B4	Filter * N	Date 11/16/12	Time 0959
Sample No. B2M1B4	Filter * N	Date ↓	Time ↓
No./Type Container 3x1-L aG	Sample Analysis 8041_PHENOLIC_GC: COMMON	Holding Time 7/40 Days	Preservative Na2S2O3/Cool-4C
No./Type Container 1x20-mL P	Sample Analysis Activity Scan	Holding Time 6 Months	Preservative None

Relinquished By AL MCINTYRE / CHPRC	Print [Signature]	Sign [Signature]	Date/Time NOV 16 2012 1150	Received By SSU #1	Print [Signature]	Sign [Signature]	Date/Time NOV 16 2012 1150	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
Relinquished By SSU #1	Print [Signature]	Sign [Signature]	Date/Time NOV 16 2012 1200	Received By [Signature]	Print [Signature]	Sign [Signature]	Date/Time 11-16-12 1200	
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Date/Time 11-16-12 1400	Received By FED-X	Print [Signature]	Sign [Signature]	Date/Time 11-17-12 0820	
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Date/Time 11-17-12 0820	Received By Steven Clayton	Print [Signature]	Sign [Signature]	Date/Time 11-17-12 0820	
FINAL SAMPLE DISPOSITION				Disposed By Steven Clayton				





794096761949

Ship (P/U) date :
Fri 11/16/2012 3:32 pm
RICHLAND, WA US



Actual delivery :
Sat 11/17/2012 8:13 am
EARTH CITY, MO US

Delivered
Signed for by: S.CLAYTON

Travel History

Date/Time	Activity	Location
- 11/17/2012 - Saturday		
8:13 am	Delivered	EARTH CITY, MO
7:49 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:45 am	At local FedEx facility	EARTH CITY, MO
5:22 am	At destination sort facility	BERKELEY, MO
4:30 am	Departed FedEx location	MEMPHIS, TN
12:30 am	Arrived at FedEx location	MEMPHIS, TN
- 11/16/2012 - Friday		
5:12 pm	Left FedEx origin facility	PASCO, WA
3:32 pm	Picked up	PASCO, WA
2:36 pm	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	794096761949	Service	FedEx Priority Overnight
Weight	47 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	47 lbs / 21.3 kgs
Shipper reference	GWS-150	Packaging	Your Packaging
Special handling section	For Saturday Delivery		



DECEMBER 14, 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s):

160-940

CUR Form #: 4 5 5

CONDITION UPON RECEIPT FORM

Client:

CHPRC



Quote No:

COC/RFA No:

W13-010-115

Initiated By:

SC

Date:

11-17-12

Time:

0820

Shipping Information

Shipper:

FedEx

UPS

DHL

Courier

Client

Other:

Multiple Packages:

Y

(N)

Shipping # (s):*

7940 9676 1949

Sample Temperature (s):**

2

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
----	----	----	----	----	----	----	----	----	-----

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	(Y) N	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y (N) N/A	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH? (if not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	Y N (N/A)	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N	Sample received in proper containers?
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was Internal COC/Workshare received?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

Corrective Action:

Client Contact Name:

Informed by:

Sample(s) processed "as is"

Sample(s) on hold until:

If released, notify:

Project Management Review:

Date:

11-19-12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\S\svr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-940-1

SDG Number: SL1333

Login Number: 940

List Number: 1

Creator: Claxton, Steven

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	



Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Glossary

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

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Method	Method Description	Protocol	Laboratory
8041A	Phenols (GC)	SW846	TAL SL

Protocol References:

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



DECEMBER 14, 2012
Sample Summary

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-940-1	B2M1B4	Water	11/16/12 09:59	11/17/12 08:20

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

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Client Sample ID: B2M1B4

Lab Sample ID: 160-940-1

No Detections

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

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Method: 8041A - Phenols (GC)

Client Sample ID: B2M1B4
Date Collected: 11/16/12 09:59
Date Received: 11/17/12 08:20

Lab Sample ID: 160-940-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.9	2.1	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,4,5-Trichlorophenol	1.4	U	4.9	1.4	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,4,6-Trichlorophenol	1.2	U	4.9	1.2	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,4-Dichlorophenol	1.4	U	4.9	1.4	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,4-Dimethylphenol	1.3	U	4.9	1.3	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,4-Dinitrophenol	1.7	U	4.9	1.7	ug/L		11/23/12 09:58	12/07/12 16:52	1
2,6-Dichlorophenol	1.3	U	4.9	1.3	ug/L		11/23/12 09:58	12/07/12 16:52	1
2-Chlorophenol	1.6	U	4.9	1.6	ug/L		11/23/12 09:58	12/07/12 16:52	1
2-Methylphenol	1.4	U	4.9	1.4	ug/L		11/23/12 09:58	12/07/12 16:52	1
2-Nitrophenol	0.70	U	4.9	0.70	ug/L		11/23/12 09:58	12/07/12 16:52	1
3 & 4 Methylphenol	1.5	U	4.9	1.5	ug/L		11/23/12 09:58	12/07/12 16:52	1
4,6-Dinitro-2-methylphenol	1.7	U	4.9	1.7	ug/L		11/23/12 09:58	12/07/12 16:52	1
4-Chloro-3-methylphenol	1.3	U	4.9	1.3	ug/L		11/23/12 09:58	12/07/12 16:52	1
4-Nitrophenol	1.8	U	4.9	1.8	ug/L		11/23/12 09:58	12/07/12 16:52	1
Dinoseb	1.6	U	4.9	1.6	ug/L		11/23/12 09:58	12/07/12 16:52	1
Pentachlorophenol	1.5	U	4.9	1.5	ug/L		11/23/12 09:58	12/07/12 16:52	1
Phenol	1.8	U	4.9	1.8	ug/L		11/23/12 09:58	12/07/12 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		54 - 139	11/23/12 09:58	12/07/12 16:52	1
2-Fluorophenol	77		34 - 121	11/23/12 09:58	12/07/12 16:52	1

DECEMBER 14, 2012
QC Sample Results

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Method: 8041A - Phenols (GC)

Lab Sample ID: MB 160-17879/1-A
Matrix: Water
Analysis Batch: 20487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.2	U	5.0	2.2	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,4,5-Trichlorophenol	1.4	U	5.0	1.4	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,4,6-Trichlorophenol	1.2	U	5.0	1.2	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,4-Dichlorophenol	1.4	U	5.0	1.4	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,4-Dimethylphenol	1.3	U	5.0	1.3	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,4-Dinitrophenol	1.8	U	5.0	1.8	ug/L		11/23/12 09:58	12/07/12 15:45	1
2,6-Dichlorophenol	1.3	U	5.0	1.3	ug/L		11/23/12 09:58	12/07/12 15:45	1
2-Chlorophenol	1.6	U	5.0	1.6	ug/L		11/23/12 09:58	12/07/12 15:45	1
2-Methylphenol	1.5	U	5.0	1.5	ug/L		11/23/12 09:58	12/07/12 15:45	1
2-Nitrophenol	0.72	U	5.0	0.72	ug/L		11/23/12 09:58	12/07/12 15:45	1
3 & 4 Methylphenol	1.6	U	5.0	1.6	ug/L		11/23/12 09:58	12/07/12 15:45	1
4,6-Dinitro-2-methylphenol	1.7	U	5.0	1.7	ug/L		11/23/12 09:58	12/07/12 15:45	1
4-Chloro-3-methylphenol	1.3	U	5.0	1.3	ug/L		11/23/12 09:58	12/07/12 15:45	1
4-Nitrophenol	1.9	U	5.0	1.9	ug/L		11/23/12 09:58	12/07/12 15:45	1
Dinoseb	1.7	U	5.0	1.7	ug/L		11/23/12 09:58	12/07/12 15:45	1
Pentachlorophenol	1.5	U	5.0	1.5	ug/L		11/23/12 09:58	12/07/12 15:45	1
Phenol	1.8	U	5.0	1.8	ug/L		11/23/12 09:58	12/07/12 15:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		54 - 139	11/23/12 09:58	12/07/12 15:45	1
2-Fluorophenol	76		34 - 121	11/23/12 09:58	12/07/12 15:45	1

Lab Sample ID: LCS 160-17879/2-A
Matrix: Water
Analysis Batch: 20487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	100	106		ug/L		106	48 - 140
2,4,5-Trichlorophenol	100	105		ug/L		105	49 - 140
2,4,6-Trichlorophenol	100	105		ug/L		105	51 - 140
2,4-Dichlorophenol	100	92.8		ug/L		93	43 - 131
2,4-Dimethylphenol	100	93.4		ug/L		93	38 - 130
2,4-Dinitrophenol	100	101		ug/L		101	32 - 140
2,6-Dichlorophenol	100	96.8		ug/L		97	45 - 136
2-Chlorophenol	100	90.4		ug/L		90	35 - 139
2-Methylphenol	100	92.8		ug/L		93	42 - 131
2-Nitrophenol	100	95.3		ug/L		95	44 - 134
3 & 4 Methylphenol	200	190		ug/L		95	43 - 133
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	52 - 140
4-Chloro-3-methylphenol	100	98.5		ug/L		98	46 - 139
4-Nitrophenol	100	115		ug/L		115	48 - 140
Dinoseb	100	119		ug/L		119	49 - 140
Pentachlorophenol	100	108		ug/L		108	47 - 140
Phenol	100	90.2		ug/L		90	41 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	115		54 - 139

TestAmerica St. Louis

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: LCS 160-17879/2-A
Matrix: Water
Analysis Batch: 20487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17879

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	85		34 - 121

Lab Sample ID: LCSD 160-17879/3-A
Matrix: Water
Analysis Batch: 20487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17879

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
2,3,4,6-Tetrachlorophenol	100	99.4		ug/L		99	48 - 140	6	20	
2,4,5-Trichlorophenol	100	98.2		ug/L		98	49 - 140	6	20	
2,4,6-Trichlorophenol	100	98.1		ug/L		98	51 - 140	7	20	
2,4-Dichlorophenol	100	86.6		ug/L		87	43 - 131	7	20	
2,4-Dimethylphenol	100	86.9		ug/L		87	38 - 130	7	20	
2,4-Dinitrophenol	100	94.1		ug/L		94	32 - 140	8	20	
2,6-Dichlorophenol	100	90.4		ug/L		90	45 - 136	7	20	
2-Chlorophenol	100	85.7		ug/L		86	35 - 139	5	20	
2-Methylphenol	100	86.8		ug/L		87	42 - 131	7	20	
2-Nitrophenol	100	90.3		ug/L		90	44 - 134	5	20	
3 & 4 Methylphenol	200	179		ug/L		90	43 - 133	6	20	
4,6-Dinitro-2-methylphenol	100	98.2		ug/L		98	52 - 140	4	20	
4-Chloro-3-methylphenol	100	92.6		ug/L		93	46 - 139	6	20	
4-Nitrophenol	100	111		ug/L		111	48 - 140	3	20	
Dinoseb	100	116		ug/L		116	49 - 140	3	20	
Pentachlorophenol	100	106		ug/L		106	47 - 140	3	20	
Phenol	100	83.3		ug/L		83	41 - 126	8	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	103		54 - 139
2-Fluorophenol	76		34 - 121

DECEMBER 14, 2012
QC Association Summary

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

TestAmerica Job ID: 160-940-1
SDG: SL1333

GC Semi VOA

Prep Batch: 17879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-940-1	B2M1B4	Total/NA	Water	3520C	
LCS 160-17879/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 160-17879/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 160-17879/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 20487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-940-1	B2M1B4	Total/NA	Water	8041A	17879
LCS 160-17879/2-A	Lab Control Sample	Total/NA	Water	8041A	17879
LCSD 160-17879/3-A	Lab Control Sample Dup	Total/NA	Water	8041A	17879
MB 160-17879/1-A	Method Blank	Total/NA	Water	8041A	17879



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

TestAmerica Job ID: 160-940-1
SDG: SL1333

Method: 8041A - Phenols (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP	2FP
		(54-139)	(34-121)
160-940-1	B2M1B4	80	77
LCS 160-17879/2-A	Lab Control Sample	115	85
LCSD 160-17879/3-A	Lab Control Sample Dup	103	76
MB 160-17879/1-A	Method Blank	89	76

Surrogate Legend

TBP = 2,4,6-Tribromophenol

2FP = 2-Fluorophenol

