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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

F10-011

Lot #: F9L170574

SDG #: SL840

Mike Neely

CH2M Hill Plateau Remediation
PO Box 1500, MS B6-06
Richland, WA 99352

TESTAMERICA LABORATORIES, INC.



Michael C. Franks
Project Manager

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January 23, 2010

TestAmerica

CASE NARRATIVE

THE LEADER IN ENVIRONMENTAL TESTING
 CH2MHill Plateau Remediation Company
 P.O. Box 1600
 MS B3-60
 Richland, Washington 99352
 January 23, 2010
 Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL840
Number of Samples	: seven samples
Sample Matrix	: Soil
Data Deliverable	: Summary
Date SDG Closed	: December 22, 2009

II. Introduction

Between December 17, 2009 and December 22, 2009, seven soil samples were 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: F10-011

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.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

January 23, 2010

SDG: SL840

TestAmerica Laboratories, Inc.

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

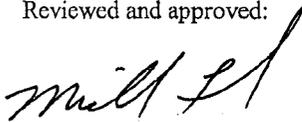
- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less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

There were no observations or nonconformances for the following methods:

Total Sulfide

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 following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:



Michael Franks
St. Louis Project Manager

METHODS SUMMARY

SL840

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Sulfides, Total 9030B/9034	SW846 9030B/903	SW846 9030B/903

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SL840 : F9L170574

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LQ9JC	001	B22RL1	12/09/09	09:02
LQ9JG	002	B22RJ6	11/30/09	09:09
LQ9JN	003	B22RK2	12/01/09	09:50
LQ9JP	004	B22RJ9	11/30/09	13:11
LQ9JV	005	B22T64	12/01/09	09:50

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

SAMPLE SUMMARY

SL840 : F9L220471

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LRG8K	001	B22RP1	12/14/09	14:45
LRG8Q	002	B22RM0	12/11/09	13:33

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-011-091	PAGE 1 OF 1
COLLECTOR <i>Rosanne, Rest</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5860 (299-E29-54); I-075	PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	FIELD LOGBOOK NO. HNF-N-576-3P94	SAF NO. F10-011	AIR QUALITY	
ICE CHEST NO. GWS-149	ACTUAL SAMPLE DEPTH 203.9' - 211.4'	COA 302143ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR	BILL OF LADING/AIR BILL NO. SEE PTR 7982 4264 8230			
MATRIX* A=Air DL=Drum L=Liquid DS=Drum S=Solids O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WF=Wipe X=Other	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 5400.5 (1990/1993)	PRESERVATION Cool-4C/cool-4C			
		TYPE OF CONTAINER G/P			
		NO. OF CONTAINER(S) 1			
		VOLUME 60ml			
		SAMPLE ANALYSIS Surf/Soil - 9030 (Soil/ice)			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B22149				
SAMPLE NO. B22RP1	MATRIX* SOIL	SAMPLE DATE 12-14-09	SAMPLE TIME 1445		

CHAIN OF POSSESSION		SIGN/PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/>	
<i>Kerry Roscoe, Larry Roberts</i>	12-14-09 1530	770-413 554 R1	12-14-09 1530		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
770 413 554 R1	12-21-09 0900	CHPRC	12-21-09		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
CHPRC	12-21-09	<i>Fed Ex</i>	12-21-09		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
<i>Fed Ex</i>	12-21-09	<i>Robinson</i>	12-20-09 9:30		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-011-049	PAGE 1 OF 1
COLLECTOR <i>Rosanne Rust Young SL840</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION CS860 (299-E29-54); I-060	PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	FIELD LOGBOOK NO. 93	SAF NO. F10-011	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. GWS-149	ACTUAL SAMPLE DEPTH 189.3' 191.8'	COA 302143ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR	BILL OF LADING/AIR BILL NO. 7982 4264 8230			
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	PRESERVATION Cool-4°C/Cool-4C	TYPE OF CONTAINER G/P			
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 5400.5 (1990/1993)	NO. OF CONTAINER(S) 1	VOLUME 60ml			
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B22720	SAMPLE ANALYSIS Samples - 9030 (Surface)				
SAMPLE NO. B22RM0	MATRIX* SOIL	SAMPLE DATE 12-11-09	SAMPLE TIME 1333		
CHAIN OF POSSESSION					
RELINQUISHED BY/REMOVED FROM <i>Larry Rosanne Rust Young 12-11-09</i>	DATE/TIME 12-11-09	SIGN/PRINT NAMES	RECEIVED BY/STORED IN <i>MO-413 550-RL 12-11-09</i>	DATE/TIME 12-11-09	
RELINQUISHED BY/REMOVED FROM <i>MO413 554 R/</i>	DATE/TIME 12-21-09		RECEIVED BY/STORED IN <i>CHPRC 0508</i>	DATE/TIME 12-21-09	
RELINQUISHED BY/REMOVED FROM <i>CHPRC 0508</i>	DATE/TIME 12-21-09		RECEIVED BY/STORED IN <i>Fed Ex</i>	DATE/TIME 12-21-09	
RELINQUISHED BY/REMOVED FROM <i>Fed Ex</i>	DATE/TIME 12-21-09		RECEIVED BY/STORED IN <i>APurison OrefBoer</i>	DATE/TIME 12-22-09	
RELINQUISHED BY/REMOVED FROM	DATE/TIME		RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME		RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME		RECEIVED BY/STORED IN	DATE/TIME	
SPECIAL INSTRUCTIONS ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/>					
ORIGINAL					
LABORATORY SECTION	RECEIVED BY				DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DATE/TIME

Detailed Results

Enter tracking number

Track

Detailed Results Notifications

Tracking no.: 798242648230

 E-mail notifications

Delivered



Delivered
Signed for by: A.BRUNSON

Shipment Dates

Destination

Ship date  Dec 21, 2009

EARTH CITY, MO

Delivery date  Dec 22, 2009 9:27 AM

Signature Proof of Delivery 

Shipment Facts

[Help](#)

Service type Priority Overnight
Weight 10.0 lbs/4.5 kg

Delivered to
Reference

Shipping/Receiving
PTR00561 3M230/302143/ES10

Shipment Travel History

[Help](#)

Select time zone:

Select time format: [12H](#) | [24H](#)

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Dec 22, 2009 9:27 AM	Delivered	EARTH CITY, MO	
Dec 22, 2009 7:49 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Dec 22, 2009 7:43 AM	At local FedEx facility	EARTH CITY, MO	
Dec 22, 2009 6:29 AM	At dest sort facility	BERKELEY, MO	
Dec 22, 2009 5:36 AM	Departed FedEx location	MEMPHIS, TN	
Dec 22, 2009 12:47 AM	Arrived at FedEx location	MEMPHIS, TN	
Dec 21, 2009 5:19 PM	Left FedEx origin facility	PASCO, WA	
Dec 21, 2009 2:42 PM	Picked up	PASCO, WA	
Dec 21, 2009 1:06 PM	Shipment information sent to FedEx		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): AL220471
461
491

CONDITION UPON RECEIPT FORM

Client: CHAMP

Quote No: 34870, 34909

COC/RFA No: Below

451

Initiated By: AB

Date: 12-22-09 Time: 9:30

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*	Sample Temperature (s):**
1. <u>7982 4264 8230</u>	1. <u>Lo</u>
2. <u>4192 9968</u>	2. <u>2</u>
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

*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 or Rad tests- Liquid or Solids

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

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was Internal COC/Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was pH taken by original TestAmerica lab?

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

Notes: F10-011-049; -791
F10-063-009; -007
X10-010-065; 064; 063; -04

Corrective Action:

Client Contact Name: _____ Informed by: _____

Sample(s) processed "as is"

Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Jaynak Pohl Date: 12-22-09

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, REVISED 10/21/08 \\slsv01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST PROJECT COORDINATOR: DYKMAN, DL SAF NO.: F10-011 COA: 302143ES10 BILL OF LADING/AIR BILL NO.: 7931 0407 3548 PRICE CODE: 8N AIR QUALITY: <input type="checkbox"/> METHOD OF SHIPMENT: GOVERNMENT VEHICLE F10-011-033 PAGE 1 OF 1																					
COMPANY CONTACT: DYKMAN, DL TELEPHONE NO.: 373-2530 PROJECT DESIGNATION: ARRA 200-LV-2 OU Characterization Vadose Zone - Soil ("K" Well) FIELD LOGBOOK NO.: HNF-N-576-3 A9 92 ACTUAL SAMPLE DEPTH: 159.5 - 162 OFFSITE PROPERTY NO.: N/A	CH2M Hill Plateau Remediation Company COLLECTOR: <i>tw</i> SAMPLING LOCATION: C5860 (299-529-54); I-045 ICE CHEST NO.: GWS-143 SHIPPED TO: TestAmerica St. Louis																				
PRESERVATION: Cool - 4C / Cool - 4C TYPE OF CONTAINER: GP NO. OF CONTAINER(S): 1 VOLUME: 60mL SAMPLE ANALYSIS: Sulfoxide - 9030 (Sulfoxide)	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 5400.5 (1990/1993) SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: 822T41																				
SAMPLE NO.: B22RL1 MATRIX*: SOIL	CHAIN OF POSSESSION: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>RELINQUISHED BY/REMOVED FROM</th> <th>DATE/TIME</th> <th>RECEIVED BY/STORED IN</th> <th>DATE/TIME</th> </tr> <tr> <td><i>A. Tucker</i></td> <td>12-9-09 1105</td> <td>MO-413 SSU-R1</td> <td>12-9-09 1105</td> </tr> <tr> <td>AL Emerson</td> <td>DEC 15 2009 1440</td> <td>AL Emerson</td> <td>DEC 15 2009 1440</td> </tr> <tr> <td>AL Emerson</td> <td>DEC 15 2009 1440</td> <td>FedEx</td> <td>DEC 15 2009 1440</td> </tr> <tr> <td>AL Emerson</td> <td>DEC 15 2009 1440</td> <td><i>Shirley Wilson</i></td> <td>DEC 15 2009 1440</td> </tr> </table>	RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	<i>A. Tucker</i>	12-9-09 1105	MO-413 SSU-R1	12-9-09 1105	AL Emerson	DEC 15 2009 1440	AL Emerson	DEC 15 2009 1440	AL Emerson	DEC 15 2009 1440	FedEx	DEC 15 2009 1440	AL Emerson	DEC 15 2009 1440	<i>Shirley Wilson</i>	DEC 15 2009 1440
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME																		
<i>A. Tucker</i>	12-9-09 1105	MO-413 SSU-R1	12-9-09 1105																		
AL Emerson	DEC 15 2009 1440	AL Emerson	DEC 15 2009 1440																		
AL Emerson	DEC 15 2009 1440	FedEx	DEC 15 2009 1440																		
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SIGN/PRINT NAMES: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>RECEIVED BY/STORED IN</th> <th>DATE/TIME</th> </tr> <tr> <td>MO-413 SSU-R1</td> <td>12-9-09 1105</td> </tr> <tr> <td>AL Emerson</td> <td>DEC 15 2009 1440</td> </tr> <tr> <td>FedEx</td> <td>DEC 15 2009 1440</td> </tr> <tr> <td><i>Shirley Wilson</i></td> <td>DEC 15 2009 1440</td> </tr> </table>	RECEIVED BY/STORED IN	DATE/TIME	MO-413 SSU-R1	12-9-09 1105	AL Emerson	DEC 15 2009 1440	FedEx	DEC 15 2009 1440	<i>Shirley Wilson</i>	DEC 15 2009 1440	SPECIAL INSTRUCTIONS: ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/>										
RECEIVED BY/STORED IN	DATE/TIME																				
MO-413 SSU-R1	12-9-09 1105																				
AL Emerson	DEC 15 2009 1440																				
FedEx	DEC 15 2009 1440																				
<i>Shirley Wilson</i>	DEC 15 2009 1440																				
LABORATORY SECTION: RECEIVED BY:	DATE/TIME:																				
FINAL SAMPLE DISPOSITION:	DATE/TIME:																				

ORIGINAL

CH2MHill Plateau Remediation Company COLLECTOR <i>R. Ruit</i>		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST COMPANY CONTACT DYKMAN, DL TELEPHONE NO. 373-2530		F10-011-011 PRICE CODE 8N		PAGE 1 OF 1 DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION CS860 (Z99-E29-54); I-008A		PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		PROJECT COORDINATOR DYKMAN, DL		AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. GWS-143		FIELD LOGBOOK NO. HWF-1-576-3 p 87		SAF NO. F10-011		METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO TestAmerica St. Louis		OFFSITE PROPERTY NO. SEE PTR		COA 302143ES10		BILL OF LADING/AIR BILL NO. 7931 0407 3548	
MATRIX* A=Air DL=Drum L=Liquid DS=Drum S=Soil O=Oil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other		PRESERVATION Cool-4C/Cool-4C		TYPE OF CONTAINER G/P			
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 5400.5 (1990/1993)		NO. OF CONTAINER(S) 1		VOLUME 60mL			
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B22T90		SAMPLE ANALYSIS Surfaces - 9010 (surface)		SAMPLE DATE NOV 30 2009		SAMPLE TIME 1311	
SAMPLE NO. B22R19		MATRIX* SOIL					
CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/>		ORIGINAL	
RELINQUISHED BY/REMOVED FROM <i>AL Emerson</i>		DATE/TIME NOV 30 2009 1530		RECEIVED BY/STORED IN MO-413 SSU-R1		DATE/TIME 11-30-09 / 1530	
RELINQUISHED BY/REMOVED FROM AL Emerson		DATE/TIME DEC 15 2009 1400		RECEIVED BY/STORED IN GHPRG		DATE/TIME DEC 15 2009 1400	
RELINQUISHED BY/REMOVED FROM GHPRG		DATE/TIME DEC 15 2009 1400		RECEIVED BY/STORED IN FedEx		DATE/TIME DEC 15 2009 1400	
RELINQUISHED BY/REMOVED FROM FedEx		DATE/TIME DEC 15 2009 1400		RECEIVED BY/STORED IN <i>Michelle Wilson</i>		DATE/TIME 12/10/09	
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
LABORATORY SECTION RECEIVED BY		TITLE		DATE/TIME		DATE/TIME	
FINAL SAMPLE DISPOSITION DISPOSAL METHOD		DISPOSED BY		DATE/TIME		DATE/TIME	

SD 840 # 4815

Detailed Results

Enter tracking number

Detailed Results Notifications

Tracking no.: 793104073548

 E-mail notifications

Delivered



Delivered
Signed for by: A.BRUSON

Shipment Dates

Destination

Ship date  Dec 15, 2009

EARTH CITY, MO

Delivery date  Dec 17, 2009 9:25 AM

Signature Proof of Delivery 

Shipment Facts

[Help](#)

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	10.0 lbs/4.5 kg	Reference	3D230 302143 ES10

Shipment Travel History

[Help](#)

Select time zone:

Select time format: [12H](#) | [24H](#)

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Dec 17, 2009 9:25 AM	Delivered	EARTH CITY, MO	
Dec 17, 2009 5:54 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Dec 17, 2009 5:48 AM	At local FedEx facility	EARTH CITY, MO	
Dec 16, 2009 9:23 PM	At dest sort facility	BERKELEY, MO	
Dec 16, 2009 3:38 PM	Departed FedEx location	MEMPHIS, TN	
Dec 16, 2009 1:35 PM	Arrived at FedEx location	MEMPHIS, TN	
Dec 15, 2009 8:03 PM	At local FedEx facility	SPOKANE, WA	
Dec 15, 2009 2:48 PM	Picked up	PASCO, WA	
Dec 15, 2009 3:55 PM	Shipment information sent to FedEx		

Lot #(s): FG1170574

CONDITION UPON RECEIPT FORM

Client: CH2M

Quote No: 84870

COC/RFA No: below

418

Initiated By: [Signature] Date: 12-17-09 Time: 0930

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*	Sample Temperature (s):**
1. <u>7982 2544 095</u>	1. <u>5</u>
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	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 or Rad tests- Liquid or Solids

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

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was Internal COC/Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was pH taken by original TestAmerica lab?

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

Notes:

F10-011-033
006
016
011
180

Corrective Action:

Client Contact Name: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____
 Project Management Review: [Signature]

Informed by: _____
 If released, notify: _____
 Date: 12-20-09

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, REVISED 10/21/08 \\Srv01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

WET CHEMISTRY

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RL1

General Chemistry

Lot-Sample #...: F9L170574-001 Work Order #...: LQ9JC Matrix.....: SOLID
 Date Sampled...: 12/09/09 Date Received...: 12/17/09
 % Moisture.....: 4.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Moisture	4.6	0.10	%	MCAWW 160.3 MOD	12/21-12/22/09	9355026
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.5	mg/kg	SW846 9030B/9034	12/18-12/21/09	9352100
		Dilution Factor: 1		MDL.....: 2.5		

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RJ6

General Chemistry

Lot-Sample #...: F9L170574-002 Work Order #...: LQ9JG Matrix.....: SOLID
 Date Sampled...: 11/30/09 Date Received...: 12/17/09
 % Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	12.8	0.10	%	MCAWW 160.3 MOD	12/21-12/22/09	9355026
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	11.5	mg/kg	SW846 9030B/9034	12/18-12/21/09	9352100
		Dilution Factor: 1		MDL.....: 2.7		

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RK2

General Chemistry

Lot-Sample #...: F9L170574-003 Work Order #...: LQ9JN Matrix.....: SOLID
 Date Sampled...: 12/01/09 Date Received...: 12/17/09
 % Moisture.....: 4.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	4.2	0.10	%	MCAWW 160.3 MOD	12/21-12/22/09	9355026
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.4	mg/kg	SW846 9030B/9034	12/18-12/21/09	9352100
		Dilution Factor: 1		MDL.....: 2.5		

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RJ9

General Chemistry

Lot-Sample #...: F9L170574-004 Work Order #...: LQ9JP Matrix.....: SOLID
 Date Sampled...: 11/30/09 Date Received...: 12/17/09
 % Moisture.....: 3.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Moisture	3.9	0.10	%	MCAWW 160.3 MOD	12/21-12/22/09	9355026
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.4	mg/kg	SW846 9030B/9034	12/18-12/21/09	9352100
		Dilution Factor: 1		MDL.....: 2.5		

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22T64

General Chemistry

Lot-Sample #...: F9L170574-005 Work Order #...: LQ9JV Matrix.....: SOLID
 Date Sampled...: 12/01/09 Date Received...: 12/17/09
 % Moisture.....: 1.7

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Moisture	1.7	0.10	%	MCAWW 160.3 MOD	12/21-12/22/09	9355026
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.2	mg/kg	SW846 9030B/9034	12/18-12/21/09	9352100
		Dilution Factor: 1		MDL.....: 2.4		

NOTE (S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RP1

General Chemistry

Lot-Sample #...: F9L220471-001 Work Order #...: LRG8K Matrix.....: SOLID
 Date Sampled...: 12/14/09 Date Received...: 12/22/09
 % Moisture.....: 2.7

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	2.7	0.10	%	MCAWW 160.3 MOD	12/22-12/23/09	9356515
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.3	mg/kg	SW846 9030B/9034	12/28/09	9362127
		Dilution Factor: 1		MDL.....: 2.4		

NOTE(S) :

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation (ARRA)

Client Sample ID: B22RM0

General Chemistry

Lot-Sample #...: F9L220471-002 Work Order #...: LRG8Q Matrix.....: SOLID
 Date Sampled...: 12/11/09 Date Received...: 12/22/09
 % Moisture.....: 2.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Moisture	2.9	0.10	%	MCAWW 160.3 MOD	12/22-12/23/09	9356515
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.3	mg/kg	SW846 9030B/9034	12/28/09	9362127
		Dilution Factor: 1		MDL.....: 2.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: SL840

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP
		LIMIT	UNITS			ANALYSIS DATE	BATCH #
Total Sulfide	ND	10.0	mg/kg	Work Order #: LRGGALAA	MB Lot-Sample #:	F9L180000-100	9352100
				Dilution Factor: 1	SW846 9030B/9034	12/18-12/21/09	
Total Sulfide	ND	10.0	mg/kg	Work Order #: LRNE01AA	MB Lot-Sample #:	F9L280000-127	9362127
				Dilution Factor: 1	SW846 9030B/9034	12/28/09	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: SL840

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	200	196	mg/kg	98	SW846 9030E/9034	12/18-12/21/09	9352100
Work Order #: LRGGALAC LCS Lot-Sample#: F9L180000-100							
Dilution Factor: 1							
Total Sulfide	200	188	mg/kg	94	SW846 9030B/9034	12/28/09	9362127
Work Order #: LRNE01AC LCS Lot-Sample#: F9L280000-127							
Dilution Factor: 1							

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: SL840
 Date Sampled...: 12/09/09

Date Received...: 12/17/09

Matrix.....: SOLID

Percent Moisture: 15

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	210	201	mg/kg	96	SW846 9030B/9	12/18-12/21/09	9352100

Work Order #...: LQ9JC1AG MS Lot-Sample #: F9L170574-001
 Dilution Factor: 1

Total Sulfide	ND	206	197	mg/kg	96	SW846 9030B/9	12/28/09	9362127
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Work Order #...: LRG8K1AE MS Lot-Sample #: F9L220471-001
 Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Results and reporting limits have been adjusted for dry weight.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F9L170574

Work Order #...: LQ9JC-SMP
LQ9JC-DUP

Matrix.....: SOLID

Date Sampled...: 12/09/09

Date Received...: 12/17/09

% Moisture.....: 4.6

PARAM RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	mg/kg	0	(0-30)	SD Lot-Sample #: F9L170574-001 SW846 9030B/9034	12/18-12/21/09	9352100
Dilution Factor: 1							

