0079888

SAF-RC-129
618-13 Soil
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 1/12/09 Initials/Date
Kathy Wendt	H4-21	KW 1/12/09 Initials/Date

COMMENTS:

SDG J00265 **SAF-RC-129**

Rad only X Chem only Rad & Chem

X Complete Partial

WASTE SITE: 618-13 Stockpiles

Analytical Data Package Prepared For

Washington Closure Hanford

Analysis Provided By

TestAmerica Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TARL

SDG Number:J00265

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

January 8, 2009

Attention: Joan Kessner

SAF Number	:	RC-129
Date SDG Closed	:	December 30, 2008
Number of Samples	:	Four (4)
Sample Type	:	Soil
SDG Number	:	J00265
Data Deliverable	:	Quick Turn Metals / Summary

CASE NARRATIVE

I. Introduction

On December 18, 2008 four soils were received at TestAmerica for ICP metals analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J181H0	K4085	SOIL	12/18/08
J181H1	K409H	SOIL	12/18/08
J181H2	K409T	SOIL	12/18/08
J181H3	K409W	SOIL	12/18/08

II. Sample Receipt

The samples were received in good condition. Mercury was requested on the chain of custody. The client was contacted by phone on December 22, 2008. The mercury analysis was cancelled by the client on the December 22, 2008 phone call. No other anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors. The requested analyses were:

ICP Metals
ICP Metals by method SW-846 6010A

IV. Quality Control

SDG J00265 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. A duplicate sample, matrix spike sample and a matrix spike duplicate sample will be analyzed per 20 samples or per month, whichever is more frequent. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

V. Comments

ICP Metals

ICP Metals by method SW-846 6010A

One batch was analyzed in December 2008 for samples with the standard metal request list and add ons aluminum, beryllium, copper, iron and zinc.

Batch 8354233:

Iron in both the ICV and CCV recovered high. Suspect iron contamination in the system due to high level iron samples. Arsenic also recovered high for the CCV. Cause is under investigation. Sample J181H0 and its duplicate, J181H0 DUP, had significant differences in values for lead, iron, cadmium, copper and zinc due to inhomogeniety of the sample. Sample J181H0 was in the form of small round, colorful pebbles.

Except as noted, the LCS, batch blank, sample, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

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

Reviewed and approved:

Sandra Seger
Project Manager

TESTAMERICA

SDG Number:
SAF Number:
Batch Number: 8354233

Sample Number	Client ID	Aliquant	Aluminum	Arsenic	Barium	Beryllium	Cadmium	Copper	Chromium	Iron	Lead	Selenium	Silver	Zinc
		sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa	mg/sa
J8L190000-233-B		1.000	-0.0073	-0.0011	0.0001	0	0	-0.0001	0.0006	0.1809	0.0026	0.00178	0.0011	0.0154
J8L190000-233-C		1.000	0.9578	0.9683	0.9666	0.9876	0.9193	0.9924	0.9294	1.091	0.9343	0.78482	0.9136	0.9267
LCS Recovery %			95.780%	96.830%	96.660%	98.760%	97.560%	99.240%	92.940%	109.100%	93.430%	78.482%	91.360%	92.670%
		g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
J8L180311-001	J181H0	0.5122	196.798126	<MDL	3.377587	0.068333	0.449043	1.015228	<MDL	3522.0617	0.985943	<MDL	<MDL	6.237798
J8L180311-001-X	J181H0-DUP	0.4988	239.57498	<MDL	2.034884	0.05012	0.05012	0.120289	<MDL	430.73376	0.511227	<MDL	<MDL	1.072574
J8L180311-002	J181H1	0.5007	5828.83962	0.82884	46.89435	0.219692	2.306771	8.927501	9.247054	20461.354	3.405233	<MDL	<MDL	32.83403
J8L180311-003	J181H2	0.5113	6320.16429	1.349501	63.76882	0.244475	2.33718	10.11148	10.04303	20604.342	4.420106	<MDL	<MDL	34.88167
J8L180311-004	J181H3	0.5172	5720.08506	1.633482	48.95612	0.212643	2.300406	8.360719	9.858883	19982.599	3.508602	<MDL	<MDL	32.54398
J8L180311-001-S	J181H0-MS	0.5064	N/A	96.90956	98.63744	99.13112	91.87401	99.82227	93.04897	N/A	94.22393	79.66726	91.35071	92.76264
% Recovery				96.910	95.260	99.063	91.425	98.807	93.049		93.238	79.667	91.351	86.525
J8L180311-001-D	J181H0-MSD	0.5012	N/A	99.12211	99.76057	101.1572	93.65523	100.7582	94.70271	N/A	95.93974	80.54469	92.46808	94.93216
% Recovery				99.122	96.383	101.089	93.206	99.743	94.703		94.954	80.545	92.468	88.694

TESTAMERICA

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-129-002	Page 1 of 1
Collector T. Stephens	**Company Contact** Joan Kessner	**Telephone No.** 509-375-4688	**Project Coordinator** KESSNER, JH	**Price Code** ~~8K~~ 12/12/08 2B **Data Turnaround** 24 Hours
Project Designation 618-13 Soil	**Sampling Location** 618-13 Stockpiles		**SAF No.** RC-129	
Ice Chest No.	**Field Logbook No.** EL-1395-14	**COA** R618132600	**Method of Shipment** Government Vehicle	
Shipped To TestAmerica Incorporated, Richland	**Offsite Property No.** NA		**Bill of Lading/Air Bill No.** NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

Possible Radioactive Material

J8L180311
J00265
Due 12.19.08

Special Handling and/or Storage

None

Preservation	None 12/17/08										
Type of Container	P JG										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										
Sample No.	**Matrix ***	**Sample Date**	**Sample Time**								
J181H0	SOIL	12/17/08	0825	X	21397			K40	85		EB
J181H1	SOIL	"	0830	X	21398			K40	9H		SP-3
J181H2	SOIL	"	0840	X	21399			K40	9T		SP-2
J181H3	SOIL	12/17/08	0850	X	21400			K40	9W		SP-1

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From: T Stephens T Stephens	Date/Time: 12.17.08 0930	Received By/Stored In: R Coffman / R Coffman	Date/Time: 12/17/08 0930
Relinquished By/Removed From: R T Coffman / R T Coffman	Date/Time: 12/17/08 1015	Received By/Stored In: Roger #B, 1060	Date/Time: 12/17/08 1015
Relinquished By/Removed From: Roger B/1060 / J.E. Benhal	Date/Time: 12-18-08 1200	Received By/Stored In: J. E. Benhal	Date/Time: 12-18-08 1200
Relinquished By/Removed From: J.E. Benhal	Date/Time: 12-18-08 1500	Received By/Stored In: J. Smith / J Smith	Date/Time: 12.18.08 1500
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

None

(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Metals by ICP - 6010 - Quick Turn (Add On) (Aluminum, Beryllium, Copper, Iron, Zinc, Zirconium); Mercury - 7471 - (CV) (Mercury)

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

5

J181H1

Radiological Counting Facility

Analysis Report for RCF21398

J181F7 SAF:RC-129 FF2/618-13 Stockpile Soil

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF21398
Sample Description	: J181F7 SAF:RC-129 FF2/618-13 Stockpile Soil
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 4.600E+01 grams
Facility	: Default
Sample Taken On	: 12/17/2008 8:30:00AM
Acquisition Started	: 12/17/2008 10:04:10AM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: PGTWHITE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.7 seconds
Dead Time	: 0.02 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 80 - 4096
Peak Area Range (in channels)	: 80 - 4096
Identification Energy Tolerance	: 1.300 keV
Energy Calibration Used Done On	: 1/31/2008
Efficiency Calibration Used Done On	: 2/4/2008
Efficiency Calibration Description	: 50ml Pill Box (1234-95-2) 2/4/2008
Sample Number	: 25264

INTERFERENCE CORRECTED REPORT

Nuclide Name	*Nuclide Id Confidence*	*Wt mean Activity (pCi/grams)*	*Wt mean Activity Uncertainty*	*Comments*
K-40	0.999	1.86E+01	4.02E+00	
PB-212	0.709	1.37E+00	2.53E-01	
RA-226d	0.463	7.19E-01	2.63E-01	
TH-232d	0.678	8.50E-01	1.83E-01	

J181H2

Radiological Counting Facility

Analysis Report for RCF21399

J181F8 SAF:RC-129 FF2/618-13 Stockpiles Soil Sample

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF21399
Sample Description	: J181F8 SAF:RC-129 FF2/618-13 Stockpiles Soil Sample
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 4.800E+01 grams
Facility	: Default
Sample Taken On	: 12/17/2008 8:40:00AM
Acquisition Started	: 12/17/2008 11:47:04AM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: BEGE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.2 seconds
Dead Time	: 0.01 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 80 - 4096
Peak Area Range (in channels)	: 80 - 4096
Identification Energy Tolerance	: 1.300 keV
Energy Calibration Used Done On	: 3/27/2008
Efficiency Calibration Used Done On	: 3/31/2008
Efficiency Calibration Description	: 50 ml Pill Box 3-31-2008
Sample Number	: 25265

INTERFERENCE CORRECTED REPORT

Nuclide Name	*Nuclide Id Confidence*	*Wt mean Activity (pCi/grams)*	*Wt mean Activity Uncertainty*	*Comments*
K-40	0.942	1.86E+01	3.63E+00	
RA-226d	0.629	6.65E-01	1.72E-01	
TH-232d	0.363	5.73E-01	1.58E-01	

J181H3

Radiological Counting Facility

Analysis Report for RCF21400

J181F9 SAF:RC-129 FF2/618-13 Stockpiles Soil Sample

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF21400
Sample Description	: J181F9 SAF:RC-129 FF2/618-13 Stockpiles Soil Sample
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 4.600E+01 grams
Facility	: Default
Sample Taken On	: 12/17/2008 8:50:00AM
Acquisition Started	: 12/17/2008 11:47:10AM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: PGTWHITE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.7 seconds
Dead Time	: 0.02 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 80 - 4096
Peak Area Range (in channels)	: 80 - 4096
Identification Energy Tolerance	: 1.300 keV
Energy Calibration Used Done On	: 1/31/2008
Efficiency Calibration Used Done On	: 2/4/2008
Efficiency Calibration Description	: 50ml Pill Box (1234-95-2) 2/4/2008
Sample Number	: 25266

INTERFERENCE CORRECTED REPORT

Nuclide Name	*Nuclide Id Confidence*	*Wt mean Activity (pCi/grams)*	*Wt mean Activity Uncertainty*	*Comments*
K-40	1.000	1.82E+01	4.19E+00	
PB-212	0.709	1.48E+00	2.57E-01	
RA-226d	0.617	7.84E-01	2.24E-01	
TH-232d	0.403	7.81E-01	2.81E-01	

Radiological Counting Facility

Analysis Report for RCF21397

J181F6 SAF:RC-129 FF2/618-13 Stockpile Soil

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF21397
Sample Description	: J181F6 SAF:RC-129 FF2/618-13 Stockpile Soil
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 6.000E+01 grams
Facility	: Default
Sample Taken On	: 12/17/2008 8:25:00AM
Acquisition Started	: 12/17/2008 10:03:52AM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: BEGE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.2 seconds
Dead Time	: 0.00 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 80 - 4096
Peak Area Range (in channels)	: 80 - 4096
Identification Energy Tolerance	: 1.300 keV
Energy Calibration Used Done On	: 3/27/2008
Efficiency Calibration Used Done On	: 3/31/2008
Efficiency Calibration Description	: 50 ml Pill Box 3-31-2008
Sample Number	: 25263

INTERFERENCE CORRECTED REPORT

Nuclide Name	*Nuclide Id Confidence*	*Wt mean Activity (pCi/grams)*	*Wt mean Activity Uncertainty*	*Comments*
K-40	0.979	7.39E+00	2.18E+00	

TestAmerica
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Sample Check-in List

Date/Time Received: 12/18/08 WCH - 1500 GM Screen Result .01

Client: WCH SDG #: J00265 NA[ ] SAF #: RC-129 NA [ ]

Work Order Number: J8L180311 Chain of Custody # RC-129-002

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]

4. Cooler Temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]

6. Number of samples in shipping container: 4

7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]

8 Samples have:
_____ Tape
_____ Custody Seals
_____ Hazard Lables
[✓] Appropriate Sample Lables

9. Samples are:
[✓] In Good Condition
_____ Broken
_____ Leaking
_____ Have Air Bubbles
(Only for samples requiring no head space.)

10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added _____

11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers): Mercury analysis on COC. ##

Sample Custodian: L. Smith Date: 12.18.08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____