0099704

SAF-RC-148
300 Area Field Remediation – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 9/26/11
INITIAL/DATE

COMMENTS:

SDG J01257 SAF-RC-148

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 313-ESSP

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-19762-1

SDG Number: J01257

Job Description: SAF# RC-148

RECEIVED
SEP 2011

For:
Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
9/23/2011 12:41 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
09/23/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

Cover Title Page 1

Report Narrative 3

Data Qualifiers 5

Method Summary 6

Method / Analyst Summary 7

Sample Summary 8

Sample Results 9

Sample Datasheets 10

QC Results 35

Qc Association Summary 36

Qc Reports 40

Client Chain of Custody 54

Sample Receipt Checklist 55

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-19762-1

SDG #: J01257
SAF#: RC-148

Date SDG Closed: September 1, 2011
Data Deliverable: 21 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1KV27	280-19762-1	6010/7471/8260	6010B/6020/7471A/8260B
J1KV28	280-19762-2	6010/7471/8260	6010B/6020/7471A/8260B
J1KV29	280-19762-3	6010/7471/8260	6010B/6020/7471A/8260B
J1KV30	280-19762-4	6010/7471/8260	6010B/6020/7471A/8260B
J1KV31	280-19762-5	6010/7471/8260	6010B/6020/7471A/8260B

The Uranium method substitution noted above, as agreed to by all parties, has no technical impact on the data.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. 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 signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

The results, RLs and MDLs included in this report have been adjusted for dry weight, as appropriate.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 9/1/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were -0.1 C and 4.1 C.

It can be noted that all samples requesting 5035/8260 VOA analysis were received at the laboratory frozen. The cooler received at a temperature of -0.1 C contained the 5035/8260 VOA samples.

GC/MS VOLATILES - SW846 8260B
Low levels of Carbon disulfide are present in the method blank associated with batch 280-84206. Because the concentration in the method blank is not present at a level greater than half the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

The MS/MSD performed on sample J1KV27 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged "T". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/6020/7471A
Serial dilution of a digestate in batch 280-84384 indicates that physical and chemical interferences are present for Cobalt and Zinc. Results have been flagged with an "X".

Low levels of Barium, Zinc and Uranium are present in the method blanks associated with batches 280-84384 and 280-84441, respectively. Because the concentrations in the method blanks are not present at levels greater than half the reporting limit or the associated sample amounts are twenty times greater than the method blank concentration, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1KV27; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1KV27 exhibited percent recoveries outside the control limits for Copper and Silicon, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The duplicate analysis of sample j1kv27 exhibited RPD data outside the control limits for Copper and Silicon, and the associated sample results have been flagged "M". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals			SW846 3050B
Metals (ICP/MS)	TAL DEN	SW846 6020	
Preparation, Metals			SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury			SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method	Analyst	Analyst ID
SW846 8260B	Reinhardt, Jason	JR
SW846 6010B	Harre, John K	JKH
SW846 6020	Lill, Thomas E	TEL
SW846 7471A	Bowen, Heidi E	HEB
ASTM D-2216	Doherty, Jillian A	JAD

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-19762-1	J1KV27	Solid	08/26/2011 1048	09/01/2011 0900
280-19762-2	J1KV28	Solid	08/26/2011 1058	09/01/2011 0900
280-19762-3	J1KV29	Solid	08/26/2011 1058	09/01/2011 0900
280-19762-4	J1KV30	Solid	08/26/2011 1111	09/01/2011 0900
280-19762-5	J1KV31	Solid	08/26/2011 1118	09/01/2011 0900

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV27**

Lab Sample ID: 280-19762-1
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 08/26/2011 1048
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9040.D
Dilution:	1.0			Initial Weight/Volume:	5.558 g
Analysis Date:	09/01/2011 2057			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.0	U	5.0	19
Benzene		0.44	U	0.44	4.6
Bromodichloromethane		0.20	U	0.20	4.6
Bromoform		0.21	U	0.21	4.6
Bromomethane		0.46	U	0.46	9.3
2-Butanone (MEK)		1.7	U	1.7	9.3
Carbon disulfide		0.39	U	0.39	4.6
Carbon tetrachloride		0.58	U	0.58	4.6
Chlorobenzene		0.50	U	0.50	4.6
Dibromochloromethane		0.53	U	0.53	4.6
Chloroethane		0.83	U	0.83	9.3
Chloroform		0.27	U	0.27	4.6
Chloromethane		0.71	U	0.71	9.3
1,1-Dichloroethane		0.19	U	0.19	4.6
1,2-Dichloroethane		0.65	U	0.65	4.6
1,1-Dichloroethene		0.55	U	0.55	4.6
1,2-Dichloroethene, Total		0.36	U	0.36	4.6
1,2-Dichloropropane		0.51	U	0.51	4.6
cis-1,3-Dichloropropene		1.2	U	1.2	4.6
trans-1,3-Dichloropropene		0.62	U	0.62	4.6
Ethylbenzene		0.62	U T	0.62	4.6
2-Hexanone		4.5	U	4.5	19
Methylene Chloride		0.70	U	0.70	4.6
4-Methyl-2-pentanone (MIBK)		4.0	U	4.0	9.3
Styrene		0.58	U T	0.58	4.6
1,1,2,2-Tetrachloroethane		0.57	U	0.57	4.6
Tetrachloroethene		5.9		0.55	4.6
Toluene		0.92	J	0.64	4.6
1,1,1-Trichloroethane		0.48	U	0.48	4.6
1,1,2-Trichloroethane		0.82	U	0.82	4.6
Trichloroethene		0.70	J	0.21	4.6
Vinyl chloride		1.2	U	1.2	4.6
Xylenes, Total		0.57	U T	0.57	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		58 - 140
Toluene-d8 (Surr)	98		80 - 126
4-Bromofluorobenzene (Surr)	114		76 - 127
Dibromofluoromethane (Surr)	94		75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV27**

Lab Sample ID: 280-19762-1
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 08/26/2011 1048
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9040.D
Dilution:	1.0			Initial Weight/Volume:	5.558 g
Analysis Date:	09/01/2011 2057			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV28**

Lab Sample ID: 280-19762-2
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9043.D
Dilution:	1.0			Initial Weight/Volume:	5.589 g
Analysis Date:	09/01/2011 2205			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Analyte DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone	5.0	U	5.0	19
Benzene	0.44	U	0.44	4.7
Bromodichloromethane	0.21	U	0.21	4.7
Bromoform	0.21	U	0.21	4.7
Bromomethane	0.47	U	0.47	9.3
2-Butanone (MEK)	1.7	U	1.7	9.3
Carbon disulfide	0.39	U	0.39	4.7
Carbon tetrachloride	0.59	U	0.59	4.7
Chlorobenzene	0.50	U	0.50	4.7
Dibromochloromethane	0.53	U	0.53	4.7
Chloroethane	0.83	U	0.83	9.3
Chloroform	0.27	U	0.27	4.7
Chloromethane	0.72	U	0.72	9.3
1,1-Dichloroethane	0.20	U	0.20	4.7
1,2-Dichloroethane	0.65	U	0.65	4.7
1,1-Dichloroethene	0.55	U	0.55	4.7
1,2-Dichloroethene, Total	0.36	U	0.36	4.7
1,2-Dichloropropane	0.51	U	0.51	4.7
cis-1,3-Dichloropropene	1.2	U	1.2	4.7
trans-1,3-Dichloropropene	0.63	U	0.63	4.7
Ethylbenzene	0.63	U	0.63	4.7
2-Hexanone	4.6	U	4.6	19
Methylene Chloride	0.70	U	0.70	4.7
4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	9.3
Styrene	0.59	U	0.59	4.7
1,1,2,2-Tetrachloroethane	0.57	U	0.57	4.7
Tetrachloroethene	3.7	J	0.55	4.7
Toluene	0.98	J	0.64	4.7
1,1,1-Trichloroethane	0.49	U	0.49	4.7
1,1,2-Trichloroethane	0.82	U	0.82	4.7
Trichloroethene	0.21	U	0.21	4.7
Vinyl chloride	1.3	U	1.3	4.7
Xylenes, Total	0.57	U	0.57	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		58 - 140
Toluene-d8 (Surr)	93		80 - 126
4-Bromofluorobenzene (Surr)	93		76 - 127
Dibromofluoromethane (Surr)	93		75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV28**

Lab Sample ID: 280-19762-2
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9043.D
Dilution:	1.0			Initial Weight/Volume:	5.589 g
Analysis Date:	09/01/2011 2205			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV29**

Lab Sample ID: 280-19762-3
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9044.D
Dilution:	1.0			Initial Weight/Volume:	5.144 g
Analysis Date:	09/01/2011 2227			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.5	J	5.5	20
Benzene		0.48	U	0.48	5.1
Bromodichloromethane		0.22	U	0.22	5.1
Bromoform		0.23	U	0.23	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		1.9	U	1.9	10
Carbon disulfide		0.43	U	0.43	5.1
Carbon tetrachloride		0.64	U	0.64	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.58	U	0.58	5.1
Chloroethane		0.90	U	0.90	10
Chloroform		0.29	U	0.29	5.1
Chloromethane		0.78	U	0.78	10
1,1-Dichloroethane		0.21	U	0.21	5.1
1,2-Dichloroethane		0.71	U	0.71	5.1
1,1-Dichloroethene		0.60	U	0.60	5.1
1,2-Dichloroethene, Total		0.40	U	0.40	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.68	U	0.68	5.1
Ethylbenzene		0.68	U	0.68	5.1
2-Hexanone		5.0	U	5.0	20
Methylene Chloride		0.76	U	0.76	5.1
4-Methyl-2-pentanone (MIBK)		4.4	U	4.4	10
Styrene		0.64	U	0.64	5.1
1,1,2,2-Tetrachloroethane		0.62	U	0.62	5.1
Tetrachloroethene		6.9		0.60	5.1
Toluene		0.70	U	0.70	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.89	U	0.89	5.1
Trichloroethene		0.63	J	0.23	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.62	U	0.62	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		58 - 140
Toluene-d8 (Surr)	93		80 - 126
4-Bromofluorobenzene (Surr)	98		76 - 127
Dibromofluoromethane (Surr)	90		75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV29**

Lab Sample ID: 280-19762-3
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9044.D
Dilution:	1.0			Initial Weight/Volume:	5.144 g
Analysis Date:	09/01/2011 2227			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV30**

Lab Sample ID: 280-19762-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 08/26/2011 1111
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9045.D
Dilution:	1.0			Initial Weight/Volume:	5.303 g
Analysis Date:	09/01/2011 2250			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		6.3	J	5.3	20
Benzene		0.46	U	0.46	4.9
Bromodichloromethane		0.21	U	0.21	4.9
Bromoform		0.22	U	0.22	4.9
Bromomethane		0.49	U	0.49	9.8
2-Butanone (MEK)		1.8	U	1.8	9.8
Carbon disulfide		0.41	U	0.41	4.9
Carbon tetrachloride		0.61	U	0.61	4.9
Chlorobenzene		0.53	U	0.53	4.9
Dibromochloromethane		0.56	U	0.56	4.9
Chloroethane		0.87	U	0.87	9.8
Chloroform		0.28	U	0.28	4.9
Chloromethane		0.75	U	0.75	9.8
1,1-Dichloroethane		0.20	U	0.20	4.9
1,2-Dichloroethane		0.68	U	0.68	4.9
1,1-Dichloroethene		0.58	U	0.58	4.9
1,2-Dichloroethene, Total		0.38	U	0.38	4.9
1,2-Dichloropropane		0.54	U	0.54	4.9
cis-1,3-Dichloropropene		1.3	U	1.3	4.9
trans-1,3-Dichloropropene		0.65	U	0.65	4.9
Ethylbenzene		0.65	U	0.65	4.9
2-Hexanone		4.8	U	4.8	20
Methylene Chloride		0.73	U	0.73	4.9
4-Methyl-2-pentanone (MIBK)		4.3	U	4.3	9.8
Styrene		0.61	U	0.61	4.9
1,1,2,2-Tetrachloroethane		0.60	U	0.60	4.9
Tetrachloroethene		2.8	J	0.58	4.9
Toluene		1.1	J	0.67	4.9
1,1,1-Trichloroethane		0.51	U	0.51	4.9
1,1,2-Trichloroethane		0.86	U	0.86	4.9
Trichloroethene		0.22	U	0.22	4.9
Vinyl chloride		1.3	U	1.3	4.9
Xylenes, Total		0.60	U	0.60	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		58 - 140
Toluene-d8 (Surr)	93		80 - 126
4-Bromofluorobenzene (Surr)	101		76 - 127
Dibromofluoromethane (Surr)	90		75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV30**

Lab Sample ID: 280-19762-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 08/26/2011 1111
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9045.D
Dilution:	1.0			Initial Weight/Volume:	5.303 g
Analysis Date:	09/01/2011 2250			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV31**

Lab Sample ID: 280-19762-5
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 08/26/2011 1118
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9046.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Analysis Date:	09/01/2011 2313			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.5	U	5.5	20
Benzene		0.48	U	0.48	5.1
Bromodichloromethane		0.23	U	0.23	5.1
Bromoform		0.24	U	0.24	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		1.9	U	1.9	10
Carbon disulfide		0.43	U	0.43	5.1
Carbon tetrachloride		0.64	U	0.64	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.58	U	0.58	5.1
Chloroethane		0.91	U	0.91	10
Chloroform		0.30	U	0.30	5.1
Chloromethane		0.79	U	0.79	10
1,1-Dichloroethane		0.21	U	0.21	5.1
1,2-Dichloroethane		0.72	U	0.72	5.1
1,1-Dichloroethene		0.60	U	0.60	5.1
1,2-Dichloroethene, Total		0.40	U	0.40	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.69	U	0.69	5.1
Ethylbenzene		0.69	U	0.69	5.1
2-Hexanone		5.0	U	5.0	20
Methylene Chloride		0.77	U	0.77	5.1
4-Methyl-2-pentanone (MIBK)		4.5	U	4.5	10
Styrene		0.64	U	0.64	5.1
1,1,2,2-Tetrachloroethane		0.62	U	0.62	5.1
Tetrachloroethene		0.60	U	0.60	5.1
Toluene		0.71	U	0.71	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.90	U	0.90	5.1
Trichloroethene		0.24	U	0.24	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.62	U	0.62	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		58 - 140
Toluene-d8 (Surr)	95		80 - 126
4-Bromofluorobenzene (Surr)	99		76 - 127
Dibromofluoromethane (Surr)	93		75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV31**

Lab Sample ID: 280-19762-5
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 08/26/2011 1118
Date Received: 09/01/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Prep Method:	5035	Prep Batch:	280-84206	Lab File ID:	J9046.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Analysis Date:	09/01/2011 2313			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV27**

Lab Sample ID: 280-19762-1
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 08/26/2011 1048
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/06/2011 2029			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6600		1.5	4.9
Antimony		0.37	U	0.37	0.58
Arsenic		2.5		0.64	0.97
Beryllium		0.032	U	0.032	0.19
Boron		0.95	U	0.95	1.9
Cadmium		0.11	B	0.040	0.19
Calcium		4000		13.7	48.6
Chromium		9.5		0.056	0.19
Cobalt		7.1	X	0.097	0.97
Copper		63.2	M N	0.21	0.97
Iron		19200		3.7	4.9
Lithium		6.8		0.29	2.4
Magnesium		3890		3.6	19.5
Manganese		292		0.097	0.97
Molybdenum		0.35	B	0.25	1.9
Nickel		16.0		0.12	3.9
Potassium		1120		39.9	292
Selenium		0.84	U	0.84	0.97
Silicon		236	M N	5.5	9.7
Silver		0.16	U	0.16	0.19
Sodium		259		57.4	117
Vanadium		47.0		0.091	1.9
Zinc		46.3	X	0.39	0.97

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/07/2011 2331			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		72.3		0.074	0.49
Lead		9.4		0.26	0.49
Zirconium		16.5		0.34	2.4

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-84779	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84441	Lab File ID:	292AREF.D
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	09/07/2011 0404			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV27**

Lab Sample ID: 280-19762-1
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 08/26/2011 1048
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		2.9		0.0016	0.10

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	09/12/2011 2347			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0069	B	0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV28**

Lab Sample ID: 280-19762-2
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	09/06/2011 2038			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6580		1.4	4.7
Antimony		0.35	U	0.35	0.56
Arsenic		3.1		0.62	0.93
Beryllium		0.031	U	0.031	0.19
Boron		1.3	B	0.91	1.9
Cadmium		0.086	B	0.038	0.19
Calcium		6080		13.1	46.6
Chromium		8.4		0.054	0.19
Cobalt		6.3	X	0.093	0.93
Copper		11.5		0.20	0.93
Iron		18900		3.5	4.7
Lithium		6.5		0.28	2.3
Magnesium		3730		3.4	18.6
Manganese		278		0.093	0.93
Molybdenum		0.24	U	0.24	1.9
Nickel		8.5		0.11	3.7
Potassium		1250		38.2	280
Selenium		0.80	U	0.80	0.93
Silicon		225		5.3	9.3
Silver		0.15	U	0.15	0.19
Sodium		240		55.0	112
Vanadium		43.3		0.088	1.9
Zinc		39.5	X	0.37	0.93

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	09/07/2011 2340			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		74.0		0.071	0.47
Lead		5.0		0.25	0.47
Zirconium		17.1		0.33	2.3

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-84779	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84441	Lab File ID:	297SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	09/07/2011 0419			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV28**

Lab Sample ID: 280-19762-2
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		7.5		0.0014	0.088

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	09/12/2011 2354			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0052	U	0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV29**

Lab Sample ID: 280-19762-3
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	09/06/2011 2041			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6400		1.5	4.7
Antimony		0.36	U	0.36	0.56
Arsenic		2.5		0.62	0.94
Beryllium		0.031	U	0.031	0.19
Boron		1.4	B	0.92	1.9
Cadmium		0.091	B	0.038	0.19
Calcium		5320		13.2	47.0
Chromium		9.1		0.054	0.19
Cobalt		6.7	X	0.094	0.94
Copper		12.4		0.20	0.94
Iron		19000		3.6	4.7
Lithium		6.3		0.28	2.3
Magnesium		3640		3.5	18.8
Manganese		288		0.094	0.94
Molybdenum		0.24	U	0.24	1.9
Nickel		8.4		0.12	3.8
Potassium		1260		38.5	282
Selenium		0.81	U	0.81	0.94
Silicon		177		5.3	9.4
Silver		0.15	U	0.15	0.19
Sodium		237		55.4	113
Vanadium		43.8		0.088	1.9
Zinc		39.8	X	0.37	0.94

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	09/07/2011 2343			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		76.9		0.071	0.47
Lead		5.4		0.25	0.47
Zirconium		16.7		0.33	2.3

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-84779	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84441	Lab File ID:	298SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Analysis Date:	09/07/2011 0422			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV29**

Lab Sample ID: 280-19762-3
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		8.1		0.0014	0.091

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	09/12/2011 2357			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0053	U	0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV30**

Lab Sample ID: 280-19762-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 08/26/2011 1111
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	09/06/2011 2043			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6880		1.4	4.5
Antimony		0.35	U	0.35	0.54
Arsenic		2.7		0.60	0.91
Beryllium		0.030	U	0.030	0.18
Boron		0.98	B	0.89	1.8
Cadmium		0.073	B	0.037	0.18
Calcium		4460		12.8	45.4
Chromium		9.8		0.053	0.18
Cobalt		7.0	X	0.091	0.91
Copper		11.6		0.20	0.91
Iron		20100		3.5	4.5
Lithium		6.9		0.27	2.3
Magnesium		3860		3.4	18.2
Manganese		309		0.091	0.91
Molybdenum		0.54	B	0.24	1.8
Nickel		9.2		0.11	3.6
Potassium		1420		37.2	272
Selenium		0.78	U	0.78	0.91
Silicon		210		5.1	9.1
Silver		0.15	U	0.15	0.18
Sodium		263		53.6	109
Vanadium		44.3		0.085	1.8
Zinc		41.0	X	0.36	0.91

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	09/07/2011 2345			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		72.2		0.069	0.45
Lead		3.9		0.25	0.45
Zirconium		18.0		0.32	2.3

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-84779	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84441	Lab File ID:	299SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	09/07/2011 0425			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV30**

Lab Sample ID: 280-19762-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 08/26/2011 1111
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		6.3		0.0015	0.092

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	09/12/2011 2359			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0054	U	0.0054	0.016

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV31**

Lab Sample ID: 280-19762-5
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 08/26/2011 1118
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	09/06/2011 2046			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6870		1.5	4.8
Antimony		0.37	U	0.37	0.58
Arsenic		3.2		0.64	0.96
Beryllium		0.032	U	0.032	0.19
Boron		0.95	U	0.95	1.9
Cadmium		0.090	B	0.040	0.19
Calcium		4260		13.6	48.2
Chromium		8.7		0.056	0.19
Cobalt		7.4	X	0.096	0.96
Copper		12.6		0.21	0.96
Iron		20100		3.7	4.8
Lithium		7.5		0.29	2.4
Magnesium		3940		3.6	19.3
Manganese		307		0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Nickel		9.3		0.12	3.9
Potassium		1380		39.6	289
Selenium		0.83	U	0.83	0.96
Silicon		312		5.5	9.6
Silver		0.15	U	0.15	0.19
Sodium		163		56.9	116
Vanadium		45.5		0.091	1.9
Zinc		41.0	X	0.38	0.96

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	09/07/2011 2347			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		73.9		0.073	0.48
Lead		4.2		0.26	0.48
Zirconium		18.0		0.34	2.4

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-84779	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84441	Lab File ID:	279SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	09/07/2011 0326			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Client Sample ID: **J1KV31**

Lab Sample ID: 280-19762-5
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 08/26/2011 1118
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		2.2		0.0015	0.096

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	09/13/2011 0001			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0055	U	0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

General Chemistry

Client Sample ID: **J1KV27**

Lab Sample ID: 280-19762-1
Client Matrix: Solid

Date Sampled: 08/26/2011 1048
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.0		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84174 Analysis Date: 09/01/2011 1550 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

General Chemistry

Client Sample ID: **J1KV28**

Lab Sample ID: 280-19762-2
Client Matrix: Solid

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.2		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84174 Analysis Date: 09/01/2011 1550 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

General Chemistry

Client Sample ID: **J1KV29**

Lab Sample ID: 280-19762-3
Client Matrix: Solid

Date Sampled: 08/26/2011 1058
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84174 Analysis Date: 09/01/2011 1550 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

General Chemistry

Client Sample ID: **J1KV30**

Lab Sample ID: 280-19762-4
Client Matrix: Solid

Date Sampled: 08/26/2011 1111
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84174 Analysis Date: 09/01/2011 1550 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

General Chemistry

Client Sample ID: **J1KV31**

Lab Sample ID: 280-19762-5
Client Matrix: Solid

Date Sampled: 08/26/2011 1118
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84174 Analysis Date: 09/01/2011 1550 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-84206					
LCS 280-84206/3-A	Lab Control Sample	T	Solid	5035	
MB 280-84206/1-A	Method Blank	T	Solid	5035	
280-19762-1	J1KV27	T	Solid	5035	
280-19762-1MS	Matrix Spike	T	Solid	5035	
280-19762-1MSD	Matrix Spike Duplicate	T	Solid	5035	
280-19762-2	J1KV28	T	Solid	5035	
280-19762-3	J1KV29	T	Solid	5035	
280-19762-4	J1KV30	T	Solid	5035	
280-19762-5	J1KV31	T	Solid	5035	
Analysis Batch:280-84525					
LCS 280-84206/3-A	Lab Control Sample	T	Solid	8260B	280-84206
MB 280-84206/1-A	Method Blank	T	Solid	8260B	280-84206
280-19762-1	J1KV27	T	Solid	8260B	280-84206
280-19762-1MS	Matrix Spike	T	Solid	8260B	280-84206
280-19762-1MSD	Matrix Spike Duplicate	T	Solid	8260B	280-84206
280-19762-2	J1KV28	T	Solid	8260B	280-84206
280-19762-3	J1KV29	T	Solid	8260B	280-84206
280-19762-4	J1KV30	T	Solid	8260B	280-84206
280-19762-5	J1KV31	T	Solid	8260B	280-84206

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-84328					
LCS 280-84328/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-84328/1-A	Method Blank	T	Solid	7471A	
280-19762-1	J1KV27	T	Solid	7471A	
280-19762-1DU	Duplicate	T	Solid	7471A	
280-19762-1MS	Matrix Spike	T	Solid	7471A	
280-19762-2	J1KV28	T	Solid	7471A	
280-19762-3	J1KV29	T	Solid	7471A	
280-19762-4	J1KV30	T	Solid	7471A	
280-19762-5	J1KV31	T	Solid	7471A	
Prep Batch: 280-84384					
LCS 280-84384/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-84384/1-A	Method Blank	T	Solid	3050B	
280-19762-1	J1KV27	T	Solid	3050B	
280-19762-1DU	Duplicate	T	Solid	3050B	
280-19762-1MS	Matrix Spike	T	Solid	3050B	
280-19762-2	J1KV28	T	Solid	3050B	
280-19762-3	J1KV29	T	Solid	3050B	
280-19762-4	J1KV30	T	Solid	3050B	
280-19762-5	J1KV31	T	Solid	3050B	
Prep Batch: 280-84441					
LCS 280-84441/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-84441/1-A	Method Blank	T	Solid	3050B	
280-19762-1	J1KV27	T	Solid	3050B	
280-19762-1DU	Duplicate	T	Solid	3050B	
280-19762-1MS	Matrix Spike	T	Solid	3050B	
280-19762-2	J1KV28	T	Solid	3050B	
280-19762-3	J1KV29	T	Solid	3050B	
280-19762-4	J1KV30	T	Solid	3050B	
280-19762-5	J1KV31	T	Solid	3050B	
Analysis Batch:280-84764					
LCS 280-84384/2-A	Lab Control Sample	T	Solid	6010B	280-84384
MB 280-84384/1-A	Method Blank	T	Solid	6010B	280-84384
280-19762-1	J1KV27	T	Solid	6010B	280-84384
280-19762-1DU	Duplicate	T	Solid	6010B	280-84384
280-19762-1MS	Matrix Spike	T	Solid	6010B	280-84384
280-19762-2	J1KV28	T	Solid	6010B	280-84384
280-19762-3	J1KV29	T	Solid	6010B	280-84384
280-19762-4	J1KV30	T	Solid	6010B	280-84384
280-19762-5	J1KV31	T	Solid	6010B	280-84384

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-84779					
LCS 280-84441/2-A	Lab Control Sample	T	Solid	6020	280-84441
MB 280-84441/1-A	Method Blank	T	Solid	6020	280-84441
280-19762-1	J1KV27	T	Solid	6020	280-84441
280-19762-1DU	Duplicate	T	Solid	6020	280-84441
280-19762-1MS	Matrix Spike	T	Solid	6020	280-84441
280-19762-2	J1KV28	T	Solid	6020	280-84441
280-19762-3	J1KV29	T	Solid	6020	280-84441
280-19762-4	J1KV30	T	Solid	6020	280-84441
280-19762-5	J1KV31	T	Solid	6020	280-84441
Analysis Batch:280-85005					
LCS 280-84384/2-A	Lab Control Sample	T	Solid	6010B	280-84384
MB 280-84384/1-A	Method Blank	T	Solid	6010B	280-84384
280-19762-1	J1KV27	T	Solid	6010B	280-84384
280-19762-1DU	Duplicate	T	Solid	6010B	280-84384
280-19762-1MS	Matrix Spike	T	Solid	6010B	280-84384
280-19762-2	J1KV28	T	Solid	6010B	280-84384
280-19762-3	J1KV29	T	Solid	6010B	280-84384
280-19762-4	J1KV30	T	Solid	6010B	280-84384
280-19762-5	J1KV31	T	Solid	6010B	280-84384
Analysis Batch:280-85697					
LCS 280-84328/2-A	Lab Control Sample	T	Solid	7471A	280-84328
MB 280-84328/1-A	Method Blank	T	Solid	7471A	280-84328
280-19762-1	J1KV27	T	Solid	7471A	280-84328
280-19762-1DU	Duplicate	T	Solid	7471A	280-84328
280-19762-1MS	Matrix Spike	T	Solid	7471A	280-84328
280-19762-2	J1KV28	T	Solid	7471A	280-84328
280-19762-3	J1KV29	T	Solid	7471A	280-84328
280-19762-4	J1KV30	T	Solid	7471A	280-84328
280-19762-5	J1KV31	T	Solid	7471A	280-84328

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-84174					
280-19762-1	J1KV27	T	Solid	D-2216	
280-19762-1DU	Duplicate	T	Solid	D-2216	
280-19762-2	J1KV28	T	Solid	D-2216	
280-19762-3	J1KV29	T	Solid	D-2216	
280-19762-4	J1KV30	T	Solid	D-2216	
280-19762-5	J1KV31	T	Solid	D-2216	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method Blank - Batch: 280-84206

Method: 8260B
Preparation: 5035

Lab Sample ID:	MB 280-84206/1-A	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9039.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.028 g
Analysis Date:	09/01/2011 2034	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	5.4	U	5.4	20
Benzene	0.47	U	0.47	5.0
Bromodichloromethane	0.22	U	0.22	5.0
Bromoform	0.23	U	0.23	5.0
Bromomethane	0.50	U	0.50	9.9
2-Butanone (MEK)	1.8	U	1.8	9.9
Carbon disulfide	1.02	J	0.42	5.0
Carbon tetrachloride	0.63	U	0.63	5.0
Chlorobenzene	0.54	U	0.54	5.0
Dibromochloromethane	0.57	U	0.57	5.0
Chloroethane	0.89	U	0.89	9.9
Chloroform	0.29	U	0.29	5.0
Chloromethane	0.77	U	0.77	9.9
1,1-Dichloroethane	0.21	U	0.21	5.0
1,2-Dichloroethane	0.70	U	0.70	5.0
1,1-Dichloroethene	0.59	U	0.59	5.0
1,2-Dichloroethene, Total	0.39	U	0.39	5.0
1,2-Dichloropropane	0.55	U	0.55	5.0
cis-1,3-Dichloropropene	1.3	U	1.3	5.0
trans-1,3-Dichloropropene	0.67	U	0.67	5.0
Ethylbenzene	0.67	U	0.67	5.0
2-Hexanone	4.9	U	4.9	20
Methylene Chloride	0.75	U	0.75	5.0
4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	9.9
Styrene	0.63	U	0.63	5.0
1,1,2,2-Tetrachloroethane	0.61	U	0.61	5.0
Tetrachloroethene	0.59	U	0.59	5.0
Toluene	0.69	U	0.69	5.0
1,1,1-Trichloroethane	0.52	U	0.52	5.0
1,1,2-Trichloroethane	0.88	U	0.88	5.0
Trichloroethene	0.23	U	0.23	5.0
Vinyl chloride	1.3	U	1.3	5.0
Xylenes, Total	0.61	U	0.61	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90	58 - 140
Toluene-d8 (Surr)	92	80 - 126
4-Bromofluorobenzene (Surr)	95	76 - 127
Dibromofluoromethane (Surr)	91	75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method Blank TICs- Batch: 280-84206

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Lab Control Sample - Batch: 280-84206

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 280-84206/3-A	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9037.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	09/01/2011 1949	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	200	184	92	45 - 184	
Benzene	50.0	47.5	95	76 - 120	
Bromodichloromethane	50.0	47.7	95	74 - 125	
Bromoform	50.0	46.7	93	75 - 120	
Bromomethane	50.0	36.8	74	40 - 149	
2-Butanone (MEK)	200	192	96	58 - 150	
Carbon disulfide	50.0	32.5	65	49 - 121	
Carbon tetrachloride	50.0	51.5	103	69 - 147	
Chlorobenzene	50.0	47.5	95	74 - 120	
Dibromochloromethane	50.0	46.1	92	74 - 120	
Chloroethane	50.0	37.4	75	51 - 155	
Chloroform	50.0	47.6	95	77 - 125	
Chloromethane	50.0	33.7	67	47 - 148	
1,1-Dichloroethane	50.0	46.7	93	74 - 120	
1,2-Dichloroethane	50.0	46.8	94	62 - 142	
1,1-Dichloroethene	50.0	53.0	106	77 - 143	
1,2-Dichloroethene, Total	100	97.1	97	80 - 120	
1,2-Dichloropropane	50.0	45.6	91	74 - 120	
cis-1,3-Dichloropropene	50.0	47.1	94	77 - 120	
trans-1,3-Dichloropropene	50.0	46.1	92	71 - 120	
Ethylbenzene	50.0	46.5	93	78 - 120	
2-Hexanone	200	198	99	58 - 136	
Methylene Chloride	50.0	48.6	97	76 - 137	
4-Methyl-2-pentanone (MIBK)	200	213	106	62 - 130	
Styrene	50.0	47.2	94	77 - 120	
1,1,2,2-Tetrachloroethane	50.0	42.8	86	68 - 120	
Tetrachloroethene	50.0	49.3	99	71 - 120	
Toluene	50.0	49.0	98	72 - 120	
1,1,1-Trichloroethane	50.0	49.4	99	67 - 143	
1,1,2-Trichloroethane	50.0	46.1	92	69 - 120	
Trichloroethene	50.0	51.1	102	78 - 120	
Vinyl chloride	50.0	34.7	69	45 - 148	
Xylenes, Total	150	141	94	77 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	58 - 140
Toluene-d8 (Surr)	95	80 - 126
4-Bromofluorobenzene (Surr)	88	76 - 127
Dibromofluoromethane (Surr)	89	75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84206

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-19762-1	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9041.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.323 g
Analysis Date:	09/01/2011 2119			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

MSD Lab Sample ID:	280-19762-1	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9042.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.718 g
Analysis Date:	09/01/2011 2142			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	101	99	45 - 184	8	28		
Benzene	82	82	76 - 120	7	20		
Bromodichloromethane	85	84	74 - 125	8	20		
Bromoform	84	79	75 - 120	13	20		
Bromomethane	70	71	40 - 149	5	22		
2-Butanone (MEK)	99	99	58 - 150	7	32		
Carbon disulfide	54	54	49 - 121	7	24		
Carbon tetrachloride	79	81	69 - 147	5	20		
Chlorobenzene	78	75	74 - 120	12	20		
Dibromochloromethane	85	80	74 - 120	14	20		
Chloroethane	69	68	51 - 155	8	22		
Chloroform	83	84	77 - 125	7	20		
Chloromethane	60	63	47 - 148	3	25		
1,1-Dichloroethane	82	83	74 - 120	6	20		
1,2-Dichloroethane	85	85	62 - 142	8	20		
1,1-Dichloroethene	86	87	77 - 143	6	20		
1,2-Dichloroethene, Total	83	83	80 - 120	7	20		
1,2-Dichloropropane	84	84	74 - 120	7	20		
cis-1,3-Dichloropropene	83	82	77 - 120	9	20		
trans-1,3-Dichloropropene	81	80	71 - 120	7	20		
Ethylbenzene	74	70	78 - 120	12	20	T	T
2-Hexanone	101	98	58 - 136	10	29		
Methylene Chloride	93	91	76 - 137	10	21		
4-Methyl-2-pentanone (MIBK)	102	103	62 - 130	6	25		
Styrene	75	72	77 - 120	12	20	T	T
1,1,2,2-Tetrachloroethane	98	90	68 - 120	15	21		
Tetrachloroethene	78	73	71 - 120	12	20		
Toluene	79	79	72 - 120	7	20		
1,1,1-Trichloroethane	80	80	67 - 143	7	20		
1,1,2-Trichloroethane	85	84	69 - 120	8	20		
Trichloroethene	81	81	78 - 120	7	20		
Vinyl chloride	61	62	45 - 148	6	24		

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84206

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-19762-1	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9041.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.323 g
Analysis Date:	09/01/2011 2119			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

MSD Lab Sample ID:	280-19762-1	Analysis Batch:	280-84525	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-84206	Lab File ID:	J9042.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.718 g
Analysis Date:	09/01/2011 2142			Final Weight/Volume:	5 mL
Prep Date:	09/01/2011 1639				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Xylenes, Total	75	70	77 - 120	13	20	T	T

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	92	58 - 140
Toluene-d8 (Surr)	101	98	80 - 126
4-Bromofluorobenzene (Surr)	106	101	76 - 127
Dibromofluoromethane (Surr)	90	90	75 - 121

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method Blank - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-84384/1-A	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/06/2011 2025	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lithium	0.30	U	0.30	2.5
Magnesium	3.7	U	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.577	B	0.40	1.0

Method Blank - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-84384/1-A	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 2327	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	0.0810	B	0.076	0.50
Lead	0.27	U	0.27	0.50
Zirconium	0.35	U	0.35	2.5

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Lab Control Sample - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-84384/2-A	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/06/2011 2027	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	198.5	99	82 - 116	
Antimony	50.0	47.64	95	82 - 110	
Arsenic	100	96.09	96	85 - 110	
Beryllium	5.00	5.22	104	84 - 114	
Boron	100	91.05	91	81 - 110	
Cadmium	10.0	10.14	101	87 - 110	
Calcium	5000	5041	101	82 - 114	
Chromium	20.0	20.07	100	84 - 114	
Cobalt	50.0	48.76	98	87 - 110	
Copper	25.0	23.61	94	88 - 110	
Iron	100	98.25	98	87 - 120	
Lithium	100	96.13	96	90 - 110	
Magnesium	5000	4864	97	90 - 110	
Manganese	50.0	49.30	99	88 - 110	
Molybdenum	100	99.23	99	86 - 110	
Nickel	50.0	49.07	98	87 - 110	
Potassium	5000	4718	94	89 - 110	
Selenium	200	197.3	99	83 - 110	
Silicon	1000	142.4	14	10 - 70	
Silver	5.00	5.16	103	87 - 114	
Sodium	5000	5149	103	90 - 112	
Vanadium	50.0	50.42	101	88 - 110	
Zinc	50.0	52.07	104	76 - 114	

Lab Control Sample - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-84384/2-A	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 2329	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	200	185.2	93	87 - 112	
Lead	50.0	50.90	102	86 - 110	
Zirconium	50.0	46.80	94	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Matrix Spike - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	09/06/2011 2036	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	6600		204	8899	1126	50 - 200	4
Antimony	0.37	U	51.0	26.64	52	20 - 200	
Arsenic	2.5		102	92.94	89	76 - 111	
Beryllium	0.032	U	5.10	4.72	93	72 - 105	
Boron	0.95	U	102	86.45	85	75 - 107	
Cadmium	0.11	B	10.2	9.75	95	40 - 130	
Calcium	4000		5100	11470	146	43 - 165	
Chromium	9.5		20.4	27.74	89	70 - 200	
Cobalt	7.1		51.0	52.30	89	72 - 106	
Copper	63.2		25.5	40.19	-90	37 - 187	N
Iron	19200		102	20760	1555	70 - 200	4
Lithium	6.8		102	98.35	90	84 - 109	
Magnesium	3890		5100	8881	98	64 - 145	
Manganese	292		51.0	348.5	110	40 - 200	4
Molybdenum	0.35	B	102	89.96	88	75 - 103	
Nickel	16.0		51.0	58.16	83	61 - 126	
Potassium	1120		5100	5605	88	56 - 172	
Selenium	0.84	U	204	184.9	91	76 - 104	
Silicon	236		1020	396.9	16	20 - 200	N
Silver	0.16	U	5.10	4.91	96	75 - 141	
Sodium	259		5100	5486	102	78 - 111	
Vanadium	47.0		51.0	100.3	105	50 - 169	
Zinc	46.3		51.0	94.26	94	70 - 200	

Matrix Spike - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	09/07/2011 2338	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Barium	72.3	204	258.0	91	52 - 159	
Lead	9.4	51.0	54.25	88	70 - 200	
Zirconium	16.5	51.0	66.90	99	75 - 125	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Duplicate - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.05 g
Analysis Date:	09/06/2011 2034	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	6600		6215	6	40	
Antimony	0.37	U	0.37	NC	40	U
Arsenic	2.5		2.46	0.6	30	
Beryllium	0.032	U	0.032	NC	30	U
Boron	0.95	U	0.96	NC	30	U
Cadmium	0.11	B	0.115	7	30	B
Calcium	4000		4031	0.8	30	
Chromium	9.5		7.85	19	40	
Cobalt	7.1		7.21	2	30	
Copper	63.2		17.00	115	30	M
Iron	19200		19370	1	40	
Lithium	6.8		6.25	8	30	
Magnesium	3890		3623	7	30	
Manganese	292		286.9	2	40	
Molybdenum	0.35	B	0.317	10	30	B
Nickel	16.0		12.78	22	30	
Potassium	1120		1014	9	40	
Selenium	0.84	U	0.84	NC	30	U
Silicon	236		153.5	42	40	M
Silver	0.16	U	0.16	NC	30	U
Sodium	259		251.8	3	30	
Vanadium	47.0		47.04	0.1	30	
Zinc	46.3		45.92	0.9	40	

Duplicate - Batch: 280-84384

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84384	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.05 g
Analysis Date:	09/07/2011 2335	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Barium	72.3	67.55	7	30	
Lead	9.4	9.01	4	40	
Zirconium	16.5	17.30	5	30	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method Blank - Batch: 280-84441

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 280-84441/1-A	Analysis Batch:	280-84779	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84441	Lab File ID:	290_BLK.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 0359	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Uranium	0.00463	B	0.0016	0.10

Lab Control Sample - Batch: 280-84441

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCS 280-84441/2-A	Analysis Batch:	280-84779	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84441	Lab File ID:	291_LCS.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 0402	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	20.0	21.31	107	85 - 123	

Matrix Spike - Batch: 280-84441

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-84779	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84441	Lab File ID:	296_MS.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.04 g
Analysis Date:	09/07/2011 0416	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	2.9	19.8	23.51	104	85 - 123	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Duplicate - Batch: 280-84441

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-19762-1	Analysis Batch:	280-84779	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84441	Lab File ID:	295_DU.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	09/07/2011 0413	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Uranium	2.9	2.78	3	20	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Method Blank - Batch: 280-84328

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-84328/1-A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/12/2011 2343	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-84328

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-84328/2-A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/12/2011 2345	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.417	100	87 - 111	

Matrix Spike - Batch: 280-84328

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-19762-1	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	09/12/2011 2350	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0069	B	0.416	0.418	99	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Duplicate - Batch: 280-84328

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-19762-1	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84328	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.68 g
Analysis Date:	09/12/2011 2352	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0069	B	0.00660	4	20	B

Client: Washington Closure Hanford

Job Number: 280-19762-1
Sdg Number: J01257

Duplicate - Batch: 280-84174

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-19762-1	Analysis Batch:	280-84174	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/01/2011 1550	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	3.0	2.7	9	20	

-0.1°, 4.1°

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-148-035	Page 1 of 1

Collector: M. WATTS	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 300 Area Field Remediation - Soil Full Protocol	Sampling Location: 313-ESSP		SAF No.: RC-148
Ice Chest No.: WCH-11-014 1 of 3	Field Logbook No.: EL-1395-18	COA: R313SP2000	Method of Shipment: Hand Deliver/Government Vehicle/FedEx
Shipped To: TestAmerica Incorporated, Richland - DENVER	Offsite Property No.: A100870		Bill of Lading/Air Bill No.: SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Radioactive < D.O.T. Limits

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	Freeze	None
Type of Container	G/P	Gs*	G/P
No. of Container(s)	1	5	1
Volume	60mL	40mL	60g

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	See item (1) in Special Instructions.	VOA - 5035/8260 (TCL)	RCF GEA Shipping Screen	ROF						
J1KV27	SOIL	8/26/11	1048	✓	✓		30211						
J1KV28	SOIL	8/26/11	1058	✓	✓		30212						
J1KV29	SOIL	8/26/11	1058	✓	✓		30213						
J1KV30	SOIL	8/26/11	1111	✓	✓		~~30314~~	30214					
J1KV31	SOIL	8/26/11	1118	✓	✓		~~30315~~	30215					

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Mark Watts	8/26/11 1330	DAVID BECKER	8/26/11 1330
DAVID BECKER	8/26/11 1425	1060, #2 A. Freeer	1425 8-26-11
WCH 1060#2	8-31-11 1315	Fed Ex	
			9/1/11 0900

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Client List) (Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Uranium, Vanadium, Zinc, Zirconium); Mercury - 7471 - (CV)

SDG JD1257

Custodian unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

REVIEWED BY CMB DATE 8/31/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 – 60:07G Solid

Analytical Due:

Report Due: 9/22/11 (14d TAT)

Sample Check-in List

Date/Time Received: 9/1/11 900 **GM Screen Result** 12 **microR/hr**

Client: Washington Closure Hanford **SDG #:** J01257 NA[ ] **SAF #:** RC-148-035 NA [ ]

Job Number: 197602 **Chain of Custody #** RC-148-035

Shipping Container ID: WCH-11-014, ERC-02-03 **Air Bill #** 795141475733, 5928

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 °C: -0.1, 4.1 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 5
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): ___

Sample Custodian: [signature] **Date:** 9/1/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 9/1/11

WCH-11-014
-0.1

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx. Express

J1120110429022 5

Ship Date: 31AUG11
ActWgt: 95.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

Ref # R300162000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100
BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100870

ARVADA, CO 80002

1 of 3

THU - 01 SEP A1
PRIORITY OVERNIGHT

TRK# 7951 4147 5733
0201

MASTER

XH WHHA

80002
CO-US
DEN

50FG2/4290/F5F4

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ERC-02-103
4.1

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J112011042900225

Ship Date: 31AUG11
ActWgt: 68.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

Ref # R300162000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100
BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100870

ARVADA, CO 80002

2 of 3

THU - 01 SEP A1
PRIORITY OVERNIGHT

MPS# 7951 4147 5928
0263
Mstr# 7951 4147 5733
0201

XH WHHA

80002
CO-US
DEN

50FG2/4299/F5F4

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