0101280

SAF-RC-210
100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 100F - Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 6/23/11
INITIAL/DATE

COMMENTS:

SDG J01109 **SAF-RC-210**

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 600-351 Verification

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

RECEIVED
JUN 2011

Job Number: 280-16640-1

SDG Number: J01109

Job Description: SAF# RC-210

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
6/21/2011 1:34 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
06/21/2011

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.

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ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-16640-1

SDG #: J01109
SAF#: RC-210

Date SDG Closed: June 7, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1JDK4	280-16640-1	6010/7471/WTPH-D+/8082/8081/8151	6010B/7471A/NWTPH-Dx/8082/8081A/8151A
J1JDK5	280-16640-2	6010/7471/WTPH-D+/8082/8081/8151	6010B/7471A/NWTPH-Dx/8082/8081A/8151A
J1JDK6	280-16640-3	6010/7471/WTPH-D+/8082/8081/8151	6010B/7471A/NWTPH-Dx/8082/8081A/8151A
J1JDK7	280-16640-4	6010/7471/WTPH-D+/8082/8081/8151	6010B/7471A/NWTPH-Dx/8082/8081A/8151A
J1JDK8	280-16640-5	6010/7471/WTPH-D+/8082/8081/8151	6010B/7471A/NWTPH-Dx/8082/8081A/8151A
J1JDK9	280-16640-6	6010/7471	6010B/7471A

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 6/7/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.9 C.

GC SEMIVOLATILES - SW846 8081A - PESTICIDEs
The organic prep laboratory noted that a Florisil clean-up was performed on the samples presented in this report to reduce matrix interferences.

Surrogate Decachlorobiphenyl was recovered outside the control limits, biased low, in sample J1JDK8. This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary. The laboratory noted that the sample chromatogram shows a baseline rise and a number of non-target analyte peaks in the region where the Decachlorobiphenyl peak is located.

The MSD aliquot of the MS/MSD performed on sample J1JDK4 exhibited percent recoveries outside the control limits for 4,4'-DDD and Endrin ketone, and the associated sample results have been flagged "N". 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.

GC SEMIVOLATILES - SW846 8082 - PCBs
No anomalies were encountered.

GC SEMIVOLATILES - SW846 8151A - HERBICIDEs
In some cases, the RPD between the primary and confirmation columns exceeded 40%. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

Surrogate DCAA was recovered outside the control limits, biased high, in the method blank associated with batch 280-71077. This is an indicator that data may be biased high. As no detectable concentrations are present in the method blank, corrective action is deemed unnecessary.

Dinoseb was not recovered in the MSD aliquot of the MS/MSD performed on sample J1JDK8, and the associated sample result has been flagged "N". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

A Continuing Calibration Verification (CCV) standard exhibited the %Difference (%D) value >15%, biased high, for Dinoseb (+23%) on the confirmation column. The overall mean %D is ≤15%; therefore, method criteria have been met and corrective action is deemed unnecessary.

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO
No anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-70979 indicates that physical and chemical interferences are present for Cobalt, Manganese and Nickel. Results have been flagged with an "X".

Low levels of Aluminum and Iron are present in the method blank associated with batch 280-70979. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Arsenic, Iron, Lead and Manganese in the Matrix Spike performed on sample J1JDK4; therefore, control limits are not applicable.

Silicon was recovered outside the control limits in the Matrix Spike performed on sample J1JDK4, and the associated sample result has 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 J1JDK4 exhibited RPD data outside the control limits for Arsenic, Cadmium and Mercury, 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: 280-16640-1
Sdg Number: J01109

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Analyzed for but not detected.
	X	More than 40% difference between columns, lower result reported.
	N	MS, MSD: Spike 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.
	*	Surrogate exceeds the control limit
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.
General Chemistry		
	U	Analyzed for but not detected.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Organochlorine Pesticides (GC)	TAL DEN	SW846 8081A	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Herbicides (GC)	TAL DEN	SW846 8151A	
Extraction (Herbicides)	TAL DEN		SW846 8151A
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

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: 280-16640-1
Sdg Number: J01109

Method	Analyst	Analyst ID
SW846 8081A	Ream, Brian E	BER
SW846 8082	Jackson, Todd D	TDJ
SW846 8151A	Wells, David	DW
NWTPH NWTPH-Dx	Pavlakovich, Adam M	AMP
SW846 6010B	Harre, John K	JKH
SW846 7471A	Niman, Katie M	KMN
ASTM D-2216	Allen, Andrew J	AJA

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-16640-1	J1JDK4	Solid	06/06/2011 0935	06/07/2011 0930
280-16640-2	J1JDK5	Solid	06/06/2011 0940	06/07/2011 0930
280-16640-3	J1JDK6	Solid	06/06/2011 0945	06/07/2011 0930
280-16640-4	J1JDK7	Solid	06/06/2011 0950	06/07/2011 0930
280-16640-5FD	J1JDK8	Solid	06/06/2011 0935	06/07/2011 0930
280-16640-6EB	J1JDK9	Solid	06/06/2011 0930	06/07/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-70847	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/11/2011 0047			Injection Volume:	1 uL
Prep Date:	06/07/2011 1950			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.53	U N	0.53	1.6
4,4'-DDE		0.23	U	0.23	1.6
4,4'-DDT		0.57	U	0.57	1.6
Aldrin		0.24	U	0.24	1.6
alpha-BHC		0.21	U	0.21	1.6
beta-BHC		0.64	U	0.64	1.6
delta-BHC		0.39	U	0.39	1.6
gamma-BHC (Lindane)		0.45	U	0.45	1.6
Heptachlor		0.21	U	0.21	1.6
Heptachlor epoxide		0.41	U	0.41	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.28	U	0.28	1.6
Endosulfan sulfate		0.27	U	0.27	1.6
Endrin		0.29	U	0.29	1.6
Endrin aldehyde		0.16	U	0.16	1.6
Endrin ketone		0.47	U N	0.47	1.6
gamma-Chlordane		0.26	U	0.26	1.6
Methoxychlor		0.43	U	0.43	3.2
alpha-Chlordane		0.31	U	0.31	1.6
Dieldrin		0.20	U	0.20	1.6
Toxaphene		15	U	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		59 - 115
Decachlorobiphenyl	68		63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-70847	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/11/2011 0136			Injection Volume:	1 uL
Prep Date:	06/07/2011 1950			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.56	U	0.56	1.7
4,4'-DDE		0.24	U	0.24	1.7
4,4'-DDT		0.60	U	0.60	1.7
Aldrin		0.26	U	0.26	1.7
alpha-BHC		0.22	U	0.22	1.7
beta-BHC		0.68	U	0.68	1.7
delta-BHC		0.41	U	0.41	1.7
gamma-BHC (Lindane)		0.47	U	0.47	1.7
Heptachlor		0.22	U	0.22	1.7
Heptachlor epoxide		0.43	U	0.43	1.7
Endosulfan I		0.18	U	0.18	1.7
Endosulfan II		0.29	U	0.29	1.7
Endosulfan sulfate		0.28	U	0.28	1.7
Endrin		0.31	U	0.31	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.50	U	0.50	1.7
gamma-Chlordane		0.27	U	0.27	1.7
Methoxychlor		0.46	U	0.46	3.4
alpha-Chlordane		0.33	U	0.33	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		16	U	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		59 - 115
Decachlorobiphenyl	69		63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid
% Moisture: 1.9

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-70847	Initial Weight/Volume:	31.2 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/11/2011 0153			Injection Volume:	1 uL
Prep Date:	06/07/2011 1950			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.54	U	0.54	1.7
4,4'-DDE		0.23	U	0.23	1.7
4,4'-DDT		0.58	U	0.58	1.7
Aldrin		0.25	U	0.25	1.6
alpha-BHC		0.21	U	0.21	1.6
beta-BHC		0.65	U	0.65	1.6
delta-BHC		0.39	U	0.39	1.6
gamma-BHC (Lindane)		0.45	U	0.45	1.6
Heptachlor		0.21	U	0.21	1.6
Heptachlor epoxide		0.42	U	0.42	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.28	U	0.28	1.7
Endosulfan sulfate		0.27	U	0.27	1.7
Endrin		0.30	U	0.30	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.48	U	0.48	1.7
gamma-Chlordane		0.26	U	0.26	1.7
Methoxychlor		0.44	U	0.44	3.2
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		15	U	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	66		59 - 115
Decachlorobiphenyl	69		63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid

% Moisture: 2.8

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-70847	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/11/2011 0209			Injection Volume:	1 uL
Prep Date:	06/07/2011 1950			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.53	U	0.53	1.7
4,4'-DDE		0.23	U	0.23	1.7
4,4'-DDT		0.58	U	0.58	1.7
Aldrin		0.25	U	0.25	1.6
alpha-BHC		0.21	U	0.21	1.6
beta-BHC		0.65	U	0.65	1.6
delta-BHC		0.39	U	0.39	1.6
gamma-BHC (Lindane)		0.45	U	0.45	1.6
Heptachlor		0.21	U	0.21	1.6
Heptachlor epoxide		0.42	U	0.42	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.28	U	0.28	1.7
Endosulfan sulfate		0.27	U	0.27	1.7
Endrin		0.30	U	0.30	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.48	U	0.48	1.7
gamma-Chlordane		0.26	U	0.26	1.7
Methoxychlor		0.44	U	0.44	3.2
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		15	U	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		59 - 115
Decachlorobiphenyl	74		63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid

% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-70847	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/11/2011 0226			Injection Volume:	1 uL
Prep Date:	06/07/2011 1950			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.53	U	0.53	1.7
4,4'-DDE		0.23	U	0.23	1.7
4,4'-DDT		0.58	U	0.58	1.7
Aldrin		0.25	U	0.25	1.6
alpha-BHC		0.21	U	0.21	1.6
beta-BHC		0.65	U	0.65	1.6
delta-BHC		0.39	U	0.39	1.6
gamma-BHC (Lindane)		0.45	U	0.45	1.6
Heptachlor		0.21	U	0.21	1.6
Heptachlor epoxide		0.42	U	0.42	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.28	U	0.28	1.7
Endosulfan sulfate		0.27	U	0.27	1.7
Endrin		0.30	U	0.30	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.48	U	0.48	1.7
gamma-Chlordane		0.26	U	0.26	1.7
Methoxychlor		0.44	U	0.44	3.2
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		15	U	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		59 - 115
Decachlorobiphenyl	58	*	63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-70848	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/09/2011 1101			Injection Volume:	1 uL
Prep Date:	06/07/2011 2045			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.9
Aroclor 1221		7.9	U	7.9	16
Aroclor 1232		2.0	U	2.0	9.9
Aroclor 1242		4.6	U	4.6	9.9
Aroclor 1248		4.6	U	4.6	9.9
Aroclor 1254		2.6	U	2.6	9.9
Aroclor 1260		2.6	U	2.6	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	73		59 - 130
Tetrachloro-m-xylene	84		53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-70848	Initial Weight/Volume:	32.7 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/09/2011 1133			Injection Volume:	1 uL
Prep Date:	06/07/2011 2045			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.5
Aroclor 1221		7.6	U	7.6	16
Aroclor 1232		1.9	U	1.9	9.5
Aroclor 1242		4.4	U	4.4	9.5
Aroclor 1248		4.4	U	4.4	9.5
Aroclor 1254		2.5	U	2.5	9.5
Aroclor 1260		2.5	U	2.5	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	83		59 - 130
Tetrachloro-m-xylene	89		53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid
% Moisture: 1.9

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-70848	Initial Weight/Volume:	32.0 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/09/2011 1308			Injection Volume:	1 uL
Prep Date:	06/07/2011 2045			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.6
Aroclor 1221		7.7	U	7.7	16
Aroclor 1232		1.9	U	1.9	9.6
Aroclor 1242		4.5	U	4.5	9.6
Aroclor 1248		4.5	U	4.5	9.6
Aroclor 1254		2.5	U	2.5	9.6
Aroclor 1260		2.5	U	2.5	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	84		59 - 130
Tetrachloro-m-xylene	89		53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-70848	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/09/2011 1340			Injection Volume:	1 uL
Prep Date:	06/07/2011 2045			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.8
Aroclor 1221		7.8	U	7.8	16
Aroclor 1232		2.0	U	2.0	9.8
Aroclor 1242		4.5	U	4.5	9.8
Aroclor 1248		4.5	U	4.5	9.8
Aroclor 1254		2.5	U	2.5	9.8
Aroclor 1260		2.5	U	2.5	9.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	63		59 - 130
Tetrachloro-m-xylene	85		53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-70848	Initial Weight/Volume:	32.2 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/09/2011 1412			Injection Volume:	1 uL
Prep Date:	06/07/2011 2045			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.4
Aroclor 1221		7.6	U	7.6	16
Aroclor 1232		1.9	U	1.9	9.4
Aroclor 1242		4.4	U	4.4	9.4
Aroclor 1248		4.4	U	4.4	9.4
Aroclor 1254		2.5	U	2.5	9.4
Aroclor 1260		2.5	U	2.5	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	68		59 - 130
Tetrachloro-m-xylene	82		53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-71077	Initial Weight/Volume:	51.1 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/16/2011 1727			Injection Volume:	1 uL
Prep Date:	06/08/2011 2320			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	79
2,4-DB		4.8	J X	2.8	79
Dalapon		1.4	U	1.4	40
Dicamba		1.4	U	1.4	40
Dichlorprop		3.2	U	3.2	79
Dinoseb		1.4	U	1.4	12
MCPA		2000	U	2000	7900
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	7900

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	88		31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-71077	Initial Weight/Volume:	50.8 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/16/2011 1749			Injection Volume:	1 uL
Prep Date:	06/08/2011 2320			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	82
2,4-DB		9.1	J X	2.9	82
Dalapon		1.4	U	1.4	41
Dicamba		1.4	U	1.4	41
Dichlorprop		3.3	U	3.3	82
Dinoseb		1.4	U	1.4	12
MCPA		2000	U	2000	8200
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	8200

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	65		31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid
% Moisture: 1.9

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-71077	Initial Weight/Volume:	51.5 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/16/2011 1810			Injection Volume:	1 uL
Prep Date:	06/08/2011 2320			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	79
2,4-DB		16	J	2.8	79
Dalapon		1.4	U	1.4	40
Dicamba		1.4	U	1.4	40
Dichlorprop		3.2	U	3.2	79
Dinoseb		1.4	U	1.4	12
MCPA		2000	U	2000	7900
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	7900

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	86		31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-71077	Initial Weight/Volume:	50.4 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/16/2011 1832			Injection Volume:	1 uL
Prep Date:	06/08/2011 2320			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	82
2,4-DB		35	J	2.9	82
Dalapon		1.4	U	1.4	41
Dicamba		1.4	U	1.4	41
Dichlorprop		3.3	U	3.3	82
Dinoseb		4.5	J	1.4	12
MCPA		2000	U	2000	8200
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		3500	J X	2000	8200

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	85		31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-71077	Initial Weight/Volume:	50.5 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	06/16/2011 1854			Injection Volume:	1 uL
Prep Date:	06/08/2011 2320			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	80
2,4-DB		2.8	U	2.8	80
Dalapon		1.4	U	1.4	40
Dicamba		1.4	U	1.4	40
Dichlorprop		3.2	U	3.2	80
Dinoseb		1.4	U N	1.4	12
MCPA		2000	U	2000	8000
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	J X	2000	8000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	83		31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-70849	Lab File ID:	006B0601.D
Dilution:	1.0			Initial Weight/Volume:	31.1 g
Analysis Date:	06/09/2011 1648			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		91000		980	3900
C10-C28		56000		660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	88		49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-70849	Lab File ID:	007B0701.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	06/09/2011 1716			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		9800		1000	4100
C10-C28		5700		690	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	86		49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid
% Moisture: 1.9

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-70849	Lab File ID:	008B0801.D
Dilution:	1.0			Initial Weight/Volume:	30.0 g
Analysis Date:	06/09/2011 1743			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		4400		1000	4100
C10-C28		2500	J	690	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	91		49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-70849	Lab File ID:	011B1101.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	06/09/2011 1907			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		120000		1000	4000
C10-C28		47000		680	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	110		49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-70849	Lab File ID:	012B1201.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Analysis Date:	06/09/2011 1934			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		210000		960	3800
C10-C28		160000		650	3800

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	84		49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	06/09/2011 1717			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10100		1.5	4.8
Antimony		0.39	B	0.37	0.58
Arsenic		363	M	0.64	0.97
Barium		93.1		0.073	0.48
Beryllium		0.24		0.032	0.19
Boron		1.3	B	0.95	1.9
Cadmium		0.82	M	0.040	0.19
Calcium		4140		13.6	48.3
Chromium		13.2		0.056	0.19
Cobalt		8.0	X	0.097	0.97
Copper		17.6		0.21	0.97
Iron		21600		3.7	4.8
Lead		1390		0.26	0.48
Magnesium		4780		3.6	19.3
Manganese		323	X	0.097	0.97
Molybdenum		0.25	U	0.25	1.9
Nickel		12.9	X	0.12	3.9
Potassium		1620		39.6	290
Selenium		0.83	U	0.83	0.97
Silicon		279	N	5.5	9.7
Silver		0.15	U	0.15	0.19
Sodium		266		57.0	116
Vanadium		49.3		0.091	1.9
Zinc		64.5		0.38	0.97

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	06/16/2011 1528			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.024	M	0.0056	0.017

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	06/09/2011 1736			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10400		1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		131		0.63	0.95
Barium		97.1		0.072	0.48
Beryllium		0.21		0.031	0.19
Boron		1.3	B	0.93	1.9
Cadmium		0.34		0.039	0.19
Calcium		4120		13.4	47.5
Chromium		12.4		0.055	0.19
Cobalt		8.4	X	0.095	0.95
Copper		15.5		0.21	0.95
Iron		22200		3.6	4.8
Lead		251		0.26	0.48
Magnesium		4960		3.5	19.0
Manganese		364	X	0.095	0.95
Molybdenum		0.25	U	0.25	1.9
Nickel		12.5	X	0.12	3.8
Potassium		1710		39.0	285
Selenium		0.82	U	0.82	0.95
Silicon		439		5.4	9.5
Silver		0.15	U	0.15	0.19
Sodium		262		56.1	114
Vanadium		48.8		0.089	1.9
Zinc		45.1		0.38	0.95

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	06/16/2011 1535			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0080	B	0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid
% Moisture: 1.9

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	06/09/2011 1738			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7830		1.5	4.9
Antimony		0.38	U	0.38	0.59
Arsenic		45.1		0.65	0.99
Barium		64.6		0.075	0.49
Beryllium		0.15	B	0.033	0.20
Boron		1.1	B	0.97	2.0
Cadmium		0.16	B	0.041	0.20
Calcium		5050		14.0	49.5
Chromium		10.7		0.057	0.20
Cobalt		6.7	X	0.099	0.99
Copper		15.1		0.21	0.99
Iron		17300		3.8	4.9
Lead		132		0.27	0.49
Magnesium		4540		3.7	19.8
Manganese		288	X	0.099	0.99
Molybdenum		0.26	U	0.26	2.0
Nickel		11.1	X	0.12	4.0
Potassium		1120		40.6	297
Selenium		0.85	U	0.85	0.99
Silicon		278		5.6	9.9
Silver		0.16	U	0.16	0.20
Sodium		222		58.4	119
Vanadium		42.3		0.093	2.0
Zinc		39.3		0.39	0.99

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.67 g
Analysis Date:	06/16/2011 1537			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0068	B	0.0050	0.016

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	06/09/2011 1741			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9660		1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		92.8		0.63	0.95
Barium		93.0		0.072	0.48
Beryllium		0.18	B	0.031	0.19
Boron		1.8	B	0.93	1.9
Cadmium		0.29		0.039	0.19
Calcium		4130		13.4	47.6
Chromium		11.7		0.055	0.19
Cobalt		8.4	X	0.095	0.95
Copper		14.9		0.21	0.95
Iron		21700		3.6	4.8
Lead		384		0.26	0.48
Magnesium		4570		3.5	19.0
Manganese		366	X	0.095	0.95
Molybdenum		0.25	U	0.25	1.9
Nickel		11.3	X	0.12	3.8
Potassium		2050		39.0	286
Selenium		0.82	U	0.82	0.95
Silicon		227		5.4	9.5
Silver		0.15	U	0.15	0.19
Sodium		248		56.2	114
Vanadium		49.7		0.090	1.9
Zinc		52.9		0.38	0.95

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	06/16/2011 1539			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.014	B	0.0049	0.015

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid

% Moisture: 1.4

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	06/09/2011 1743			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9450		1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		500		0.60	0.91
Barium		89.1		0.069	0.45
Beryllium		0.19		0.030	0.18
Boron		1.5	B	0.89	1.8
Cadmium		1.3		0.037	0.18
Calcium		3930		12.8	45.3
Chromium		11.8		0.053	0.18
Cobalt		7.8	X	0.091	0.91
Copper		15.1		0.20	0.91
Iron		20500		3.4	4.5
Lead		1910		0.24	0.45
Magnesium		4280		3.3	18.1
Manganese		318	X	0.091	0.91
Molybdenum		0.24	U	0.24	1.8
Nickel		11.1	X	0.11	3.6
Potassium		1870		37.1	272
Selenium		0.78	U	0.78	0.91
Silicon		269		5.1	9.1
Silver		0.14	U	0.14	0.18
Sodium		239		53.4	109
Vanadium		45.9		0.085	1.8
Zinc		67.8		0.36	0.91

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	06/16/2011 1542			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0049	0.015

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Client Sample ID: **J1JDK9**

Lab Sample ID: 280-16640-6EB
Client Matrix: Solid
% Moisture: 0.0

Date Sampled: 06/06/2011 0930
Date Received: 06/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-71292	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	06/09/2011 1745			Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		226		1.5	4.7
Antimony		0.36	U	0.36	0.57
Arsenic		0.62	U	0.62	0.94
Barium		2.1		0.072	0.47
Beryllium		0.031	U	0.031	0.19
Boron		0.92	U	0.92	1.9
Cadmium		0.039	U	0.039	0.19
Calcium		43.1	B	13.3	47.2
Chromium		0.16	B	0.055	0.19
Cobalt		0.11	B X	0.094	0.94
Copper		0.21	B	0.20	0.94
Iron		261		3.6	4.7
Lead		0.57		0.25	0.47
Magnesium		24.7		3.5	18.9
Manganese		5.0	X	0.094	0.94
Molybdenum		0.25	U	0.25	1.9
Nickel		0.14	B X	0.12	3.8
Potassium		49.6	B	38.7	283
Selenium		0.81	U	0.81	0.94
Silicon		132		5.3	9.4
Silver		0.15	U	0.15	0.19
Sodium		55.7	U	55.7	113
Vanadium		0.35	B	0.089	1.9
Zinc		1.2		0.38	0.94

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	06/16/2011 1544			Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				

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

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK4**

Lab Sample ID: 280-16640-1
Client Matrix: Solid

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK5**

Lab Sample ID: 280-16640-2
Client Matrix: Solid

Date Sampled: 06/06/2011 0940
Date Received: 06/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK6**

Lab Sample ID: 280-16640-3
Client Matrix: Solid

Date Sampled: 06/06/2011 0945
Date Received: 06/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK7**

Lab Sample ID: 280-16640-4
Client Matrix: Solid

Date Sampled: 06/06/2011 0950
Date Received: 06/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.8		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK8**

Lab Sample ID: 280-16640-5FD
Client Matrix: Solid

Date Sampled: 06/06/2011 0935
Date Received: 06/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

General Chemistry

Client Sample ID: **J1JDK9**

Lab Sample ID: 280-16640-6EB
Client Matrix: Solid

Date Sampled: 06/06/2011 0930
Date Received: 06/07/2011 0930

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

Analysis Batch: 280-70937 Analysis Date: 06/08/2011 1050 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-70847					
LCS 280-70847/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-70847/1-A	Method Blank	T	Solid	3550C	
280-16640-1	J1JDK4	T	Solid	3550C	
280-16640-1MS	Matrix Spike	T	Solid	3550C	
280-16640-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-16640-2	J1JDK5	T	Solid	3550C	
280-16640-3	J1JDK6	T	Solid	3550C	
280-16640-4	J1JDK7	T	Solid	3550C	
280-16640-5FD	J1JDK8	T	Solid	3550C	
Prep Batch: 280-70848					
LCS 280-70848/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-70848/1-A	Method Blank	T	Solid	3550C	
280-16640-1	J1JDK4	T	Solid	3550C	
280-16640-2	J1JDK5	T	Solid	3550C	
280-16640-2MS	Matrix Spike	T	Solid	3550C	
280-16640-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-16640-3	J1JDK6	T	Solid	3550C	
280-16640-4	J1JDK7	T	Solid	3550C	
280-16640-5FD	J1JDK8	T	Solid	3550C	
Prep Batch: 280-70849					
LCS 280-70849/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-70849/1-A	Method Blank	T	Solid	3550C	
280-16640-1	J1JDK4	T	Solid	3550C	
280-16640-2	J1JDK5	T	Solid	3550C	
280-16640-3	J1JDK6	T	Solid	3550C	
280-16640-3MS	Matrix Spike	T	Solid	3550C	
280-16640-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-16640-4	J1JDK7	T	Solid	3550C	
280-16640-5FD	J1JDK8	T	Solid	3550C	
Prep Batch: 280-71077					
LCS 280-71077/2-A	Lab Control Sample	T	Solid	8151A	
MB 280-71077/1-A	Method Blank	T	Solid	8151A	
280-16640-1	J1JDK4	T	Solid	8151A	
280-16640-2	J1JDK5	T	Solid	8151A	
280-16640-3	J1JDK6	T	Solid	8151A	
280-16640-4	J1JDK7	T	Solid	8151A	
280-16640-5FD	J1JDK8	T	Solid	8151A	
280-16640-5MS	Matrix Spike	T	Solid	8151A	
280-16640-5MSD	Matrix Spike Duplicate	T	Solid	8151A	

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-71289					
LCS 280-70848/2-A	Lab Control Sample	T	Solid	8082	280-70848
MB 280-70848/1-A	Method Blank	T	Solid	8082	280-70848
280-16640-1	J1JDK4	T	Solid	8082	280-70848
280-16640-2	J1JDK5	T	Solid	8082	280-70848
280-16640-2MS	Matrix Spike	T	Solid	8082	280-70848
280-16640-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-70848
280-16640-3	J1JDK6	T	Solid	8082	280-70848
280-16640-4	J1JDK7	T	Solid	8082	280-70848
280-16640-5FD	J1JDK8	T	Solid	8082	280-70848
Analysis Batch:280-71661					
LCS 280-70849/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-70849
MB 280-70849/1-A	Method Blank	T	Solid	NWTPH-Dx	280-70849
280-16640-1	J1JDK4	T	Solid	NWTPH-Dx	280-70849
280-16640-2	J1JDK5	T	Solid	NWTPH-Dx	280-70849
280-16640-3	J1JDK6	T	Solid	NWTPH-Dx	280-70849
280-16640-3MS	Matrix Spike	T	Solid	NWTPH-Dx	280-70849
280-16640-3MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-70849
280-16640-4	J1JDK7	T	Solid	NWTPH-Dx	280-70849
280-16640-5FD	J1JDK8	T	Solid	NWTPH-Dx	280-70849
Analysis Batch:280-72286					
LCS 280-70847/2-A	Lab Control Sample	T	Solid	8081A	280-70847
MB 280-70847/1-A	Method Blank	T	Solid	8081A	280-70847
280-16640-1	J1JDK4	T	Solid	8081A	280-70847
280-16640-1MS	Matrix Spike	T	Solid	8081A	280-70847
280-16640-1MSD	Matrix Spike Duplicate	T	Solid	8081A	280-70847
280-16640-2	J1JDK5	T	Solid	8081A	280-70847
280-16640-3	J1JDK6	T	Solid	8081A	280-70847
280-16640-4	J1JDK7	T	Solid	8081A	280-70847
280-16640-5FD	J1JDK8	T	Solid	8081A	280-70847
Analysis Batch:280-72587					
LCS 280-71077/2-A	Lab Control Sample	T	Solid	8151A	280-71077
MB 280-71077/1-A	Method Blank	T	Solid	8151A	280-71077
280-16640-1	J1JDK4	T	Solid	8151A	280-71077
280-16640-2	J1JDK5	T	Solid	8151A	280-71077
280-16640-3	J1JDK6	T	Solid	8151A	280-71077
280-16640-4	J1JDK7	T	Solid	8151A	280-71077
280-16640-5FD	J1JDK8	T	Solid	8151A	280-71077
280-16640-5MS	Matrix Spike	T	Solid	8151A	280-71077
280-16640-5MSD	Matrix Spike Duplicate	T	Solid	8151A	280-71077

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-70826					
LCS 280-70826/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-70826/1-A	Method Blank	T	Solid	7471A	
280-16640-1	J1JDK4	T	Solid	7471A	
280-16640-1DU	Duplicate	T	Solid	7471A	
280-16640-1MS	Matrix Spike	T	Solid	7471A	
280-16640-2	J1JDK5	T	Solid	7471A	
280-16640-3	J1JDK6	T	Solid	7471A	
280-16640-4	J1JDK7	T	Solid	7471A	
280-16640-5FD	J1JDK8	T	Solid	7471A	
280-16640-6EB	J1JDK9	T	Solid	7471A	
Prep Batch: 280-70979					
LCS 280-70979/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-70979/1-A	Method Blank	T	Solid	3050B	
280-16640-1	J1JDK4	T	Solid	3050B	
280-16640-1DU	Duplicate	T	Solid	3050B	
280-16640-1MS	Matrix Spike	T	Solid	3050B	
280-16640-2	J1JDK5	T	Solid	3050B	
280-16640-3	J1JDK6	T	Solid	3050B	
280-16640-4	J1JDK7	T	Solid	3050B	
280-16640-5FD	J1JDK8	T	Solid	3050B	
280-16640-6EB	J1JDK9	T	Solid	3050B	
Analysis Batch:280-71292					
LCS 280-70979/2-A	Lab Control Sample	T	Solid	6010B	280-70979
MB 280-70979/1-A	Method Blank	T	Solid	6010B	280-70979
280-16640-1	J1JDK4	T	Solid	6010B	280-70979
280-16640-1DU	Duplicate	T	Solid	6010B	280-70979
280-16640-1MS	Matrix Spike	T	Solid	6010B	280-70979
280-16640-2	J1JDK5	T	Solid	6010B	280-70979
280-16640-3	J1JDK6	T	Solid	6010B	280-70979
280-16640-4	J1JDK7	T	Solid	6010B	280-70979
280-16640-5FD	J1JDK8	T	Solid	6010B	280-70979
280-16640-6EB	J1JDK9	T	Solid	6010B	280-70979

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-72500					
LCS 280-70826/2-A	Lab Control Sample	T	Solid	7471A	280-70826
MB 280-70826/1-A	Method Blank	T	Solid	7471A	280-70826
280-16640-1	J1JDK4	T	Solid	7471A	280-70826
280-16640-1DU	Duplicate	T	Solid	7471A	280-70826
280-16640-1MS	Matrix Spike	T	Solid	7471A	280-70826
280-16640-2	J1JDK5	T	Solid	7471A	280-70826
280-16640-3	J1JDK6	T	Solid	7471A	280-70826
280-16640-4	J1JDK7	T	Solid	7471A	280-70826
280-16640-5FD	J1JDK8	T	Solid	7471A	280-70826
280-16640-6EB	J1JDK9	T	Solid	7471A	280-70826

Report Basis
T = Total

General Chemistry				
Analysis Batch:280-70937				
280-16640-1	J1JDK4	T	Solid	D-2216
280-16640-1DU	Duplicate	T	Solid	D-2216
280-16640-2	J1JDK5	T	Solid	D-2216
280-16640-3	J1JDK6	T	Solid	D-2216
280-16640-4	J1JDK7	T	Solid	D-2216
280-16640-5FD	J1JDK8	T	Solid	D-2216
280-16640-6EB	J1JDK9	T	Solid	D-2216

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-70847

Method: 8081A
Preparation: 3550C

Lab Sample ID:	MB 280-70847/1-A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-70847	Lab File ID:	062F6201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.2 g
Analysis Date:	06/11/2011 0242	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	06/07/2011 1950			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.51	U	0.51	1.6
4,4'-DDE	0.22	U	0.22	1.6
4,4'-DDT	0.55	U	0.55	1.6
Aldrin	0.23	U	0.23	1.5
alpha-BHC	0.20	U	0.20	1.5
beta-BHC	0.62	U	0.62	1.5
delta-BHC	0.37	U	0.37	1.5
gamma-BHC (Lindane)	0.43	U	0.43	1.5
Heptachlor	0.20	U	0.20	1.5
Heptachlor epoxide	0.40	U	0.40	1.5
Endosulfan I	0.16	U	0.16	1.5
Endosulfan II	0.27	U	0.27	1.6
Endosulfan sulfate	0.26	U	0.26	1.6
Endrin	0.29	U	0.29	1.6
Endrin aldehyde	0.16	U	0.16	1.6
Endrin ketone	0.46	U	0.46	1.6
gamma-Chlordane	0.25	U	0.25	1.6
Methoxychlor	0.42	U	0.42	3.1
alpha-Chlordane	0.30	U	0.30	1.6
Dieldrin	0.20	U	0.20	1.6
Toxaphene	15	U	15	150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	79	59 - 115
Decachlorobiphenyl	73	63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Lab Control Sample - Batch: 280-70847

Method: 8081A
Preparation: 3550C

Lab Sample ID:	LCS 280-70847/2-A	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-70847	Lab File ID:	054F5401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	06/11/2011 0030	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	06/07/2011 1950			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.6	11.6	70	57 - 118	
4,4'-DDE	16.6	12.4	75	61 - 115	
4,4'-DDT	16.6	13.7	83	53 - 125	
Aldrin	16.6	11.5	69	60 - 115	
alpha-BHC	16.6	12.4	75	54 - 115	
beta-BHC	16.6	12.5	76	58 - 115	
delta-BHC	16.6	12.4	75	62 - 115	
gamma-BHC (Lindane)	16.6	12.1	73	59 - 115	
Heptachlor	16.6	12.8	77	61 - 115	
Heptachlor epoxide	16.6	13.4	81	62 - 112	
Endosulfan I	16.6	13.0	79	55 - 115	
Endosulfan II	16.6	13.5	82	60 - 115	
Endosulfan sulfate	16.6	13.0	78	58 - 118	
Endrin	16.6	15.5	93	61 - 121	
Endrin aldehyde	16.6	11.5	70	54 - 115	
Endrin ketone	16.6	12.0	72	61 - 118	
gamma-Chlordane	16.6	13.3	80	60 - 115	
Methoxychlor	16.6	13.0	78	52 - 123	
alpha-Chlordane	16.6	13.1	79	60 - 115	
Dieldrin	16.6	13.9	84	63 - 117	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	59 - 115
Decachlorobiphenyl	82	63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-70847

Method: 8081A
Preparation: 3550C

MS Lab Sample ID:	280-16640-1	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-70847	Lab File ID:	056F5601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	06/11/2011 0103			Final Weight/Volume:	10000 uL
Prep Date:	06/07/2011 1950			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-16640-1	Analysis Batch:	280-72286	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-70847	Lab File ID:	057F5701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	06/11/2011 0120			Final Weight/Volume:	10000 uL
Prep Date:	06/07/2011 1950			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	58	53	57 - 118	11	20		N
4,4'-DDE	66	61	61 - 115	9	15		
4,4'-DDT	72	66	53 - 125	11	29		
Aldrin	71	66	60 - 115	10	50		
alpha-BHC	79	73	54 - 115	11	17		
beta-BHC	79	71	58 - 115	13	17		
delta-BHC	77	71	62 - 115	11	19		
gamma-BHC (Lindane)	78	72	59 - 115	10	24		
Heptachlor	79	73	61 - 115	10	18		
Heptachlor epoxide	75	69	62 - 112	10	18		
Endosulfan I	70	64	55 - 115	10	26		
Endosulfan II	71	65	60 - 115	11	20		
Endosulfan sulfate	68	63	58 - 118	10	22		
Endrin	91	79	61 - 121	17	30		
Endrin aldehyde	63	55	54 - 115	16	29		
Endrin ketone	65	60	61 - 118	11	20		N
gamma-Chlordane	71	67	60 - 115	9	21		
Methoxychlor	69	63	52 - 123	11	23		
alpha-Chlordane	71	66	60 - 115	9	18		
Dieldrin	73	68	63 - 117	10	25		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	86	76	59 - 115
Decachlorobiphenyl	73	72	63 - 124

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-70848

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-70848/1-A	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-70848	Lab File ID:	004F0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	06/09/2011 0957	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	06/07/2011 2045			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.8	U	2.8	10
Aroclor 1221	8.0	U	8.0	17
Aroclor 1232	2.0	U	2.0	10
Aroclor 1242	4.7	U	4.7	10
Aroclor 1248	4.7	U	4.7	10
Aroclor 1254	2.6	U	2.6	10
Aroclor 1260	2.6	U	2.6	10

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	94	59 - 130
Tetrachloro-m-xylene	84	53 - 128

Lab Control Sample - Batch: 280-70848

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-70848/2-A	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-70848	Lab File ID:	005F0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	06/09/2011 1029	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	06/07/2011 2045			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	32.7	30.3	93	54 - 132	
Aroclor 1260	32.7	32.0	98	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	92	59 - 130
Tetrachloro-m-xylene	84	53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-70848

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-16640-2	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-70848	Lab File ID:	008F0801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.5 g
Analysis Date:	06/09/2011 1204			Final Weight/Volume:	5000 uL
Prep Date:	06/07/2011 2045			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-16640-2	Analysis Batch:	280-71289	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-70848	Lab File ID:	009F0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	06/09/2011 1236			Final Weight/Volume:	5000 uL
Prep Date:	06/07/2011 2045			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	84	93	54 - 132	14	26		
Aroclor 1260	86	86	62 - 129	5	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	81	83	59 - 130
Tetrachloro-m-xylene	85	88	53 - 128

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-71077

Method: 8151A
Preparation: 8151A

Lab Sample ID:	MB 280-71077/1-A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-71077	Lab File ID:	027B2701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.7 g
Analysis Date:	06/16/2011 1959	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	06/08/2011 2320			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
2,4,5-T	2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid	14	U	14	79
2,4-DB	2.8	U	2.8	79
Dalapon	1.4	U	1.4	39
Dicamba	1.4	U	1.4	39
Dichlorprop	3.2	U	3.2	79
Dinoseb	1.4	U	1.4	12
MCPA	2000	U	2000	7900
2,4,5-TP (Silvex)	1.4	U	1.4	20
MCPP	2000	U	2000	7900

Surrogate	% Rec		Acceptance Limits
DCAA	111	*	31 - 105

Lab Control Sample - Batch: 280-71077

Method: 8151A
Preparation: 8151A

Lab Sample ID:	LCS 280-71077/2-A	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-71077	Lab File ID:	019B1901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.2 g
Analysis Date:	06/16/2011 1705	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	06/08/2011 2320			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4,5-T	93.8	94.7	101	24 - 115	
2,4-Dichlorophenoxyacetic acid	89.8	98.7	110	32 - 115	
2,4-DB	97.7	65.4	67	37 - 119	J
Dalapon	102	86.1	85	11 - 115	
Dicamba	89.8	90.7	101	11 - 115	
Dichlorprop	89.8	83.8	93	35 - 115	
Dinoseb	89.8	7.44	8	5 - 166	J
MCPA	9100	8920	98	37 - 115	
2,4,5-TP (Silvex)	89.8	92.3	103	53 - 134	
MCPP	9110	10500	115	48 - 132	

Surrogate	% Rec	Acceptance Limits
DCAA	104	31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-71077

Method: 8151A
Preparation: 8151A

MS Lab Sample ID:	280-16640-5	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-71077	Lab File ID:	025B2501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.5 g
Analysis Date:	06/16/2011 1916			Final Weight/Volume:	10000 uL
Prep Date:	06/08/2011 2320			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-16640-5	Analysis Batch:	280-72587	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-71077	Lab File ID:	026B2601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.0 g
Analysis Date:	06/16/2011 1937			Final Weight/Volume:	10000 uL
Prep Date:	06/08/2011 2320			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4,5-T	91	92	24 - 115	2	40		
2,4-Dichlorophenoxyacetic acid	83	87	32 - 115	6	40	J	J
2,4-DB	84	76	37 - 119	8	50		J
Dalapon	86	98	11 - 115	14	50		
Dicamba	101	107	11 - 115	6	50		
Dichlorprop	85	90	35 - 115	8	50	J	
Dinoseb	18	0	5 - 166	NC	50		U N
MCPA	56	60	37 - 115	6	50		
2,4,5-TP (Silvex)	88	92	53 - 134	5	40		
MCPP	117	130	48 - 132	12	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCAA	92	100	31 - 105

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-70849

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-70849/1-A	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-70849	Lab File ID:	004B0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.3 g
Analysis Date:	06/09/2011 1552	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	960	U	960	3800
C10-C28	650	U	650	3800

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	94	49 - 115

Lab Control Sample - Batch: 280-70849

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-70849/2-A	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-70849	Lab File ID:	005B0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.4 g
Analysis Date:	06/09/2011 1620	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	61700	57900	94	57 - 115	
C10-C28	61700	57900	94	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	95	49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-70849

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-16640-3	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-70849	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	06/09/2011 1811			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-16640-3	Analysis Batch:	280-71661	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-70849	Lab File ID:	010B1001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.7 g
Analysis Date:	06/09/2011 1839			Final Weight/Volume:	1000 uL
Prep Date:	06/07/2011 1900			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	85	98	57 - 115	8	23		
C10-C28	85	99	56 - 115	9	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	93	102	49 - 115

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-70979

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-70979/1-A	Analysis Batch:	280-71292	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/09/2011 1713	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.73	B	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.076	U	0.076	0.50
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	4.49	B	3.8	5.0
Lead	0.27	U	0.27	0.50
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	0.40	U	0.40	1.0

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Lab Control Sample - Batch: 280-70979

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-70979/2-A	Analysis Batch:	280-71292	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/09/2011 1715	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	180.5	90	82 - 116	
Antimony	50.0	46.86	94	82 - 110	
Arsenic	100	92.46	92	85 - 110	
Barium	200	194.1	97	87 - 112	
Beryllium	5.00	4.58	92	84 - 114	
Boron	100	91.62	92	81 - 110	
Cadmium	10.0	9.67	97	87 - 110	
Calcium	5000	4652	93	82 - 114	
Chromium	20.0	18.97	95	84 - 114	
Cobalt	50.0	46.55	93	87 - 110	
Copper	25.0	25.32	101	88 - 110	
Iron	100	98.42	98	87 - 120	
Lead	50.0	48.18	96	86 - 110	
Magnesium	5000	4758	95	90 - 110	
Manganese	50.0	48.08	96	88 - 110	
Molybdenum	100	95.01	95	86 - 110	
Nickel	50.0	46.66	93	87 - 110	
Potassium	5000	4842	97	89 - 110	
Selenium	200	194.8	97	83 - 110	
Silicon	1000	137.5	14	10 - 70	
Silver	5.00	5.08	102	87 - 114	
Sodium	5000	4875	98	90 - 112	
Vanadium	50.0	48.37	97	88 - 110	
Zinc	50.0	46.63	93	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Matrix Spike - Batch: 280-70979

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-16640-1	Analysis Batch:	280-71292	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.14 g
Analysis Date:	06/09/2011 1724	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	10100		178	12790	1524	50 - 200	4
Antimony	0.39	B	44.5	17.90	39	20 - 200	
Arsenic	363		89.0	549.3	209	76 - 111	4
Barium	93.1		178	265.7	97	52 - 159	
Beryllium	0.24		4.45	4.05	86	72 - 105	
Boron	1.3	B	89.0	74.10	82	75 - 107	
Cadmium	0.82		8.90	9.16	94	40 - 130	
Calcium	4140		4450	9041	110	43 - 165	
Chromium	13.2		17.8	28.82	88	70 - 200	
Cobalt	8.0		44.5	45.83	85	72 - 106	
Copper	17.6		22.2	39.01	96	37 - 187	
Iron	21600		89.0	23020	1549	70 - 200	4
Lead	1390		44.5	1805	923	70 - 200	4
Magnesium	4780		4450	9097	97	64 - 145	
Manganese	323		44.5	395.1	161	40 - 200	4
Molybdenum	0.25	U	89.0	75.27	85	75 - 103	
Nickel	12.9		44.5	50.21	84	61 - 126	
Potassium	1620		4450	5969	98	56 - 172	
Selenium	0.83	U	178	156.1	88	76 - 104	
Silicon	279		890	363.7	10	20 - 200	N
Silver	0.15	U	4.45	4.16	94	75 - 141	
Sodium	266		4450	4547	96	78 - 111	
Vanadium	49.3		44.5	93.05	98	50 - 169	
Zinc	64.5		44.5	112.8	108	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Duplicate - Batch: 280-70979

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-16640-1	Analysis Batch:	280-71292	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-70979	Lab File ID:	25A060911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	06/09/2011 1722	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/09/2011 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	10100		10800	7	40	
Antimony	0.39	B	0.37	NC	40	U
Arsenic	363		517.6	35	30	M
Barium	93.1		98.04	5	30	
Beryllium	0.24		0.260	7	30	
Boron	1.3	B	1.52	12	30	B
Cadmium	0.82		1.17	35	30	M
Calcium	4140		4443	7	30	
Chromium	13.2		15.02	13	40	
Cobalt	8.0		8.54	6	30	
Copper	17.6		19.26	9	30	
Iron	21600		23040	6	40	
Lead	1390		2051	38	40	
Magnesium	4780		4989	4	30	
Manganese	323		348.6	8	40	
Molybdenum	0.25	U	0.26	NC	30	U
Nickel	12.9		13.42	4	30	
Potassium	1620		1787	10	40	
Selenium	0.83	U	0.85	NC	30	U
Silicon	279		246.1	12	40	
Silver	0.15	U	0.16	NC	30	U
Sodium	266		261.5	2	30	
Vanadium	49.3		51.91	5	30	
Zinc	64.5		77.80	19	40	

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Method Blank - Batch: 280-70826

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-70826/1-A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	06/16/2011 1523	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-70826

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-70826/2-A	Analysis Batch:	280-72500	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	06/16/2011 1526	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.429	103	87 - 111	

Matrix Spike - Batch: 280-70826

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-16640-1	Analysis Batch:	280-72500	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.61 g
Analysis Date:	06/16/2011 1532	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.024	0.416	0.439	100	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Duplicate - Batch: 280-70826

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-16640-1	Analysis Batch:	280-72500	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-70826	Lab File ID:	110616AD.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/16/2011 1530	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/16/2011 1125				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.024	0.0151	45	20	B M

Client: Washington Closure Hanford

Job Number: 280-16640-1
Sdg Number: J01109

Duplicate - Batch: 280-70937

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-16640-1	Analysis Batch:	280-70937	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:	06/08/2011 1050	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	1.4	1.3	12	20	

2.9 oc A 60711 IL

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-210-002	Page 1 of 2

Collector D. RICE	Company Contact Jen Russell	Telephone No. 509-380-8093	Project Coordinator KESSNER, JH
Price Code 8C	Data Turnaround 15 Days		
Project Designation 100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 1	Sampling Location 600-351 VERIFICATION		SAF No. RC-210
Ice Chest No. WCH-11-043	Field Logbook No. EL-1651-01	COA R603512000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, ~~Richland~~ Denver JR 6/2/11	Offsite Property No. NA		Bill of Lading/Air Bill No. 7971 7514 1348

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C						
Type of Container	G/P	G	aG	aG	aG						
No. of Container(s)	1	1	1 JR 6/6/11	1	1						
Volume	60mL	120mL	~~120mL~~ 500 mL	120mL	120mL						
SAMPLE ANALYSIS	See item (1) in Special Instructions.	TPH-Diesel Range - WTPH-D +	PCBs - 8082	Pesticides - 8081	Chloro-Herbicides - EPA8151						

Sample No.	Matrix *	Sample Date	Sample Time											
J1JDK4	SOIL	6-6-11	0935	X	X	X	X	X						SZ-1
J1JDK5	SOIL	6-6-11	0940	X	X	X	X	X						SZ-2
J1JDK6	SOIL	6-6-11	0945	X	X	X	X	X						SZ-3
J1JDK7	SOIL	6-6-11	0950	X	X	X	X	X						SZ-4
J1JDK8	SOIL	6-6-11	0935	X	X	X	X	X						DUP

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From: David D. Rice	6-6-11 1000	Received By/Stored In: Jen Russell Jen Russell	6-6-11 1000
Relinquished By/Removed From: Jen Russell Jen Russell	6/6/11 1400	Received By/Stored In: A. PORTER Amanda Porter	6/6/11 1400
Relinquished By/Removed From: A. PORTER Amanda Porter	6/6/11 1410	Received By/Stored In: Fed Ex	
Relinquished By/Removed From		Received By/Stored In	6/7/11 9:30
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

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

REVIEWED BY AJ
DATE 10-6-11

SDG# J01109

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

Page 64 of 67

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-210-002	Page 2 of 2

Collector D. RICE	Company Contact Jen Russell	Telephone No. 509-380-8093	Project Coordinator< KESSNER, JH
Price Code 8C	Data Turnaround 15 Days		
Project Designation 100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 1	Sampling Location 600-351 VERIFICATION		SAF No. RC-210
Ice Chest No. WCH-11-043	Field Logbook No. EL-1651-01	COA R603512000	Method of Shipment FedEx
Shipped To JR 6/2/11 TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No. NA		Bill of Lading/Air Bill No. 7971 7514 1348

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C						
Type of Container	G/P	G	aG	aG	aG						
No. of Container(s)	1	1	1	1	1						
Volume	60mL	120mL	120mL	120mL	120mL						
SAMPLE ANALYSIS	See item (1) in Special Instructions.	TPH-Diesel Range - WTPH-D +	PCBs - 8082	Pesticides - 8081	Chloro-Herbicides - EPA8151						
Sample No. / Matrix * / Sample Date / Sample Time											
J1JDK9 / SOIL / 6-6-11 / 0930	X										EB

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David A. Rice	6-6-11 1000	Jen Russell / Jen Russell	6-6-11 1000
Jen Russell / Jen Russell	6/6/11 1400	A. PORTER / Amanda Porter	6/6/11 1400
A. PORTER / Amanda Porter	6/6/11 1410	FedEx	
		~~Received By/Stored In~~	6/7/11 930

SPECIAL INSTRUCTIONS

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

REVIEWED BY AJ
DATE 6-6-11

SDG# J01109

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 OTR -Solid

Analytical Due:

Report Due: 6/22/11 (Rush 11 Day TAT)

Sample Check-in List

Date/Time Received: 6/7/11 930 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: J01109 NA[ ] SAF #: RC-210 NA [ ]

Job Number: 16640 Chain of Custody # RC-210-002

Shipping Container ID: WCH-11-043 Air Bill # 7971 7514 1348

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: 2.9 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
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: Date: 6/7/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager Date 6/8/11

LS-023, Rev. 7, 1/08

From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 06JUN11
ActWgt: 45.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

TUE - 07 JUN A1
PRIORITY OVERNIGHT

TRK# 0201 7971 7514 1348

XH WHHA

80002
CO-U8
DEN

50DG1/0CB0/7EFB

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