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 6/18/12
INITIAL/DATE

COMMENTS:

SDG J01517 SAF-RC-210

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 600-300

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-29179-1

SDG Number: J01517

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
6/13/2012 9:27 AM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
06/13/2012

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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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-29179-1

SDG #: J01517
SAF#: RC-210

Date SDG Closed: May 23, 2012
Data Deliverable: 21 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1P8F2	280-29179-1	6010B/7471/1311-6010-7470/WTPH-D+/ 8310/8082/8081	6010B/7471A/1311/NWTPH-Dx/ 8310/8082/8081A
J1P8F3	280-29179-2	6010B/7471/1311-6010-7470/WTPH-D+/ 8310/8082/8081	6010B/7471A/1311/NWTPH-Dx/ 8310/8082/8081A
J1P8F4	280-29179-3	6010B/7471/1311-6010-7470/WTPH-D+/ 8310/8082/8081	6010B/7471A/1311/NWTPH-Dx/ 8310/8082/8081A
J1P8F5	280-29179-4	6010B/7471/1311-6010-7470/WTPH-D+/ 8310/8082/8081	6010B/7471A/1311/NWTPH-Dx/ 8310/8082/8081A

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 5/23/2012 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3º C.

Samples requesting TCLP Metals 1311/6010B/7470A analysis were leached and placed on hold, as instructed on the chain-of-custody.

GC SEMIVOLATILES - SW846 8081A - PESTICIDEs
The MS/MSD performed on sample J1P8F3 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged "N". In addition, RPD limits were exceeded. 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 - NWTPH-Dx - DRO
No anomalies were encountered.

HPLC - SW846 8310 - PAHs

The RPD between the primary and confirmation columns exceeded 40% for analytes in sample J1P8F2. The lower of the two values has been reported, as matrix interference is evident on both columns. Associated results have been flagged with an “X”.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-121104 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an “X”.

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 J1P8F2; therefore, control limits are not applicable.

The duplicate analysis of sample J1P8F2 exhibited RPD data outside the control limits for Mercury, and the associated sample result has 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: 280-29179-1
Sdg Number: J01517

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Analyzed for but not detected.
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	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.
	M	Sample duplicate precision not met.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
HPLC/IC		
	U	Analyzed for but not detected.
	X	More than 40% difference between columns, lower result reported.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

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
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
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: 280-29179-1
Sdg Number: J01517

Method	Analyst	Analyst ID
SW846 8081A	Wells, David	DW
SW846 8082	Pavlakovich, Adam M	AMP
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Bowen, Heidi E	HEB
SW846 7471A	Rawlings, Brendon L	BLR
ASTM D-2216	Blythe, Scott	SB
SW846 8310	Fiedler, Heather K	HKF

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-29179-1	J1P8F2	Solid	05/21/2012 0750	05/23/2012 0915
280-29179-2	J1P8F3	Solid	05/21/2012 0800	05/23/2012 0915
280-29179-3	J1P8F4	Solid	05/21/2012 0810	05/23/2012 0915
280-29179-4	J1P8F5	Solid	05/21/2012 0818	05/23/2012 0915

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid
% Moisture: 4.0

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-121123	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 2016			Injection Volume:	1 uL
Prep Date:	05/23/2012 2200			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		1.1	J	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		0.40	U	0.40	1.6
gamma-BHC (Lindane)		0.46	U	0.46	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	3.3
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		16	U	16	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		59 - 115
Decachlorobiphenyl	85		63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-121123	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 2034			Injection Volume:	1 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.56	U	0.56	1.8
4,4'-DDE		0.25	U	0.25	1.8
4,4'-DDT		0.61	U	0.61	1.8
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)		0.48	U	0.48	1.7
Heptachlor		0.22	U	0.22	1.7
Heptachlor epoxide		0.44	U	0.44	1.7
Endosulfan I		0.18	U	0.18	1.7
Endosulfan II		0.30	U N	0.30	1.8
Endosulfan sulfate		0.28	U N	0.28	1.8
Endrin		0.32	U	0.32	1.8
Endrin aldehyde		0.18	U N	0.18	1.8
Endrin ketone		0.50	U N	0.50	1.8
gamma-Chlordane		0.27	U	0.27	1.8
Methoxychlor		0.46	U N	0.46	3.4
alpha-Chlordane		0.33	U	0.33	1.8
Dieldrin		0.22	U	0.22	1.8
Toxaphene		16	U	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		59 - 115
Decachlorobiphenyl	86		63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid

% Moisture: 5.9

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-121123	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 2125			Injection Volume:	1 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.55	U	0.55	1.7
4,4'-DDE		0.24	U	0.24	1.7
4,4'-DDT		0.59	U	0.59	1.7
Aldrin		0.25	U	0.25	1.7
alpha-BHC		0.22	U	0.22	1.7
beta-BHC		0.67	U	0.67	1.7
delta-BHC		0.40	U	0.40	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		0.49	U	0.49	1.7
gamma-Chlordane		0.27	U	0.27	1.7
Methoxychlor		0.45	U	0.45	3.3
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		16	U	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	77		59 - 115
Decachlorobiphenyl	105		63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid

% Moisture: 3.4

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-121123	Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 2142			Injection Volume:	1 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.56	U	0.56	1.8
4,4'-DDE		0.28	J	0.25	1.8
4,4'-DDT		0.61	U	0.61	1.8
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)		0.48	U	0.48	1.7
Heptachlor		0.22	U	0.22	1.7
Heptachlor epoxide		0.44	U	0.44	1.7
Endosulfan I		0.18	U	0.18	1.7
Endosulfan II		0.30	U	0.30	1.8
Endosulfan sulfate		0.28	U	0.28	1.8
Endrin		0.32	U	0.32	1.8
Endrin aldehyde		0.18	U	0.18	1.8
Endrin ketone		0.50	U	0.50	1.8
gamma-Chlordane		0.27	U	0.27	1.8
Methoxychlor		0.46	U	0.46	3.4
alpha-Chlordane		0.33	U	0.33	1.8
Dieldrin		0.22	U	0.22	1.8
Toxaphene		16	U	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		59 - 115
Decachlorobiphenyl	100		63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid
% Moisture: 4.0

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-122156	Initial Weight/Volume:	32.6 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/05/2012 1400			Injection Volume:	1 uL
Prep Date:	06/01/2012 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	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	78		59 - 130
Tetrachloro-m-xylene	70		53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-122156	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/05/2012 1423			Injection Volume:	1 uL
Prep Date:	06/01/2012 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	71		59 - 130
Tetrachloro-m-xylene	69		53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid

% Moisture: 5.9

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-122156	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/05/2012 1446			Injection Volume:	1 uL
Prep Date:	06/01/2012 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	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	Qualifier	Acceptance Limits
Decachlorobiphenyl	72		59 - 130
Tetrachloro-m-xylene	70		53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid

% Moisture: 3.4

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-122156	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	06/05/2012 1532			Injection Volume:	1 uL
Prep Date:	06/01/2012 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	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		9.7	J	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	74		59 - 130
Tetrachloro-m-xylene	68		53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid
% Moisture: 4.0

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-121120	Lab File ID:	079B3101.D
Dilution:	1.0			Initial Weight/Volume:	30.0 g
Analysis Date:	06/05/2012 0224			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		27000		1000	4200
C10-C28		6500		710	4200

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	73		49 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-121120	Lab File ID:	080B3201.D
Dilution:	1.0			Initial Weight/Volume:	32.6 g
Analysis Date:	06/05/2012 0248			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3900		960	3900
C10-C28		1700	J	650	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	74		49 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-121120	Lab File ID:	081B3301.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	06/05/2012 0312			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		6400		1000	4200
C10-C28		1900	J	700	4200

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	77		49 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-121120	Lab File ID:	084B3601.D
Dilution:	1.0			Initial Weight/Volume:	31.5 g
Analysis Date:	06/05/2012 0425			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		5300		980	3900
C10-C28		2800	J	670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	80		49 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid
% Moisture: 4.0

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-121122	Initial Weight/Volume:	32.5 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	06/01/2012 0129			Injection Volume:	20 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	96
Acenaphthylene		8.7	U	8.7	96
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.8	J X	3.1	14
Benzo[a]pyrene		21		6.2	14
Benzo[b]fluoranthene		12	J X	4.0	14
Benzo[g,h,i]perylene		15	J X	6.9	29
Benzo[k]fluoranthene		3.8	U	3.8	14
Chrysene		6.6	J X	4.7	38
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		17	J	13	38
Fluorene		5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	96
Phenanthrene		25	J	12	38
Pyrene		13	J	12	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	81		72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-121122	Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	06/01/2012 0300			Injection Volume:	20 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.4	U	9.4	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.7	U	6.7	16
Benzo[b]fluoranthene		4.4	U	4.4	16
Benzo[g,h,i]perylene		7.5	U	7.5	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		5.1	U	5.1	42
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		14	U	14	42
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		13	U	13	31
Naphthalene		13	U	13	100
Phenanthrene		13	U	13	42
Pyrene		13	U	13	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	84		72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-121122	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	06/01/2012 0331			Injection Volume:	20 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.4	U	9.4	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.7	U	6.7	16
Benzo[b]fluoranthene		4.4	U	4.4	16
Benzo[g,h,i]perylene		7.5	U	7.5	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		5.1	U	5.1	42
Dibenzo(a,h)anthracene		12	U	12	31
Fluoranthene		14	U	14	42
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		13	U	13	31
Naphthalene		13	U	13	100
Phenanthrene		13	U	13	42
Pyrene		13	U	13	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	85		72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-121122	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	06/01/2012 0402			Injection Volume:	20 uL
Prep Date:	05/23/2012 2200			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.2	U	9.2	100
Anthracene		3.1	U	3.1	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		6.5	U	6.5	15
Benzo[b]fluoranthene		6.4	J	4.3	15
Benzo[g,h,i]perylene		7.3	U	7.3	31
Benzo[k]fluoranthene		4.0	U	4.0	15
Chrysene		4.9	U	4.9	41
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		13	U	13	41
Fluorene		5.4	U	5.4	31
Indeno[1,2,3-cd]pyrene		12	U	12	31
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	41
Pyrene		12	U	12	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	85		72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid
% Moisture: 4.0

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-122488	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	06/04/2012 1452			Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8910		1.6	5.1
Antimony		0.48	B	0.39	0.61
Arsenic		2.9		0.67	1.0
Barium		81.6		0.078	0.51
Beryllium		0.22		0.034	0.20
Boron		4.3		1.0	2.0
Cadmium		0.19	B	0.042	0.20
Calcium		5060		14.4	51.1
Chromium		12.1	X	0.059	0.20
Cobalt		6.2	X	0.10	1.0
Copper		13.1	X	0.22	1.0
Iron		17200		3.9	5.1
Lead		25.0	X	0.28	0.51
Magnesium		4070		3.8	20.4
Manganese		302		0.10	1.0
Molybdenum		0.30	B	0.27	2.0
Nickel		11.2	X	0.13	4.1
Potassium		1890		41.9	306
Selenium		0.88	U	0.88	1.0
Silicon		514	X	5.8	10.2
Silver		0.16	U	0.16	0.20
Sodium		236		60.3	123
Vanadium		39.0		0.096	2.0
Zinc		53.4	X	0.41	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	05/25/2012 1846			Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.016	B M	0.0065	0.020

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-122488	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	06/04/2012 1501			Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10700		1.5	5.0
Antimony		0.40	B	0.38	0.60
Arsenic		3.0		0.66	1.0
Barium		91.8		0.076	0.50
Beryllium		0.28		0.033	0.20
Boron		2.3		0.98	2.0
Cadmium		0.14	B	0.041	0.20
Calcium		3710		14.1	49.9
Chromium		12.3	X	0.058	0.20
Cobalt		7.4	X	0.10	1.0
Copper		14.3	X	0.22	1.0
Iron		19900		3.8	5.0
Lead		6.2	X	0.27	0.50
Magnesium		4540		3.7	20.0
Manganese		349		0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Nickel		12.7	X	0.12	4.0
Potassium		2310		40.9	300
Selenium		0.86	U	0.86	1.0
Silicon		610	X	5.7	10
Silver		0.16	U	0.16	0.20
Sodium		237		58.9	120
Vanadium		41.4		0.094	2.0
Zinc		42.2	X	0.40	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	05/25/2012 1853			Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				

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

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-122488	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	06/04/2012 1504			Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10800		1.6	5.3
Antimony		0.40	U	0.40	0.64
Arsenic		2.9		0.70	1.1
Barium		96.6		0.081	0.53
Beryllium		0.29		0.035	0.21
Boron		2.2		1.0	2.1
Cadmium		0.18	B	0.044	0.21
Calcium		3670		15.0	53.1
Chromium		12.0	X	0.062	0.21
Cobalt		7.5	X	0.11	1.1
Copper		13.9	X	0.23	1.1
Iron		20300		4.0	5.3
Lead		8.4	X	0.29	0.53
Magnesium		4880		3.9	21.2
Manganese		360		0.11	1.1
Molybdenum		0.28	U	0.28	2.1
Nickel		11.9	X	0.13	4.2
Potassium		2210		43.6	319
Selenium		0.91	U	0.91	1.1
Silicon		791	X	6.0	10.6
Silver		0.17	U	0.17	0.21
Sodium		267		62.7	127
Vanadium		41.4		0.10	2.1
Zinc		45.6	X	0.42	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	05/25/2012 1855			Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0051	U	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-122488	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	06/04/2012 1506			Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6580		1.6	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		1.8		0.66	1.0
Barium		57.6		0.076	0.50
Beryllium		0.11	B	0.033	0.20
Boron		1.3	B	0.98	2.0
Cadmium		0.15	B	0.041	0.20
Calcium		3860		14.2	50.2
Chromium		8.3	X	0.058	0.20
Cobalt		6.7	X	0.10	1.0
Copper		11.9	X	0.22	1.0
Iron		18600		3.8	5.0
Lead		4.8	X	0.27	0.50
Magnesium		4000		3.7	20.1
Manganese		288		0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Nickel		9.6	X	0.12	4.0
Potassium		1370		41.2	301
Selenium		0.86	U	0.86	1.0
Silicon		429	X	5.7	10.0
Silver		0.16	U	0.16	0.20
Sodium		197		59.3	121
Vanadium		47.5		0.094	2.0
Zinc		42.4	X	0.40	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	05/25/2012 1858			Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				

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

General Chemistry

Client Sample ID: **J1P8F2**

Lab Sample ID: 280-29179-1
Client Matrix: Solid

Date Sampled: 05/21/2012 0750
Date Received: 05/23/2012 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.0		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-122370 Analysis Date: 06/04/2012 1206 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1P8F3**

Lab Sample ID: 280-29179-2
Client Matrix: Solid

Date Sampled: 05/21/2012 0800
Date Received: 05/23/2012 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-122370 Analysis Date: 06/04/2012 1206 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1P8F4**

Lab Sample ID: 280-29179-3
Client Matrix: Solid

Date Sampled: 05/21/2012 0810
Date Received: 05/23/2012 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-122370 Analysis Date: 06/04/2012 1206 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1P8F5**

Lab Sample ID: 280-29179-4
Client Matrix: Solid

Date Sampled: 05/21/2012 0818
Date Received: 05/23/2012 0915

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

Analysis Batch: 280-122370 Analysis Date: 06/04/2012 1206 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-121120					
LCS 280-121120/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-121120/1-A	Method Blank	T	Solid	3550C	
280-29179-1	J1P8F2	T	Solid	3550C	
280-29179-2	J1P8F3	T	Solid	3550C	
280-29179-3	J1P8F4	T	Solid	3550C	
280-29179-3MS	Matrix Spike	T	Solid	3550C	
280-29179-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-29179-4	J1P8F5	T	Solid	3550C	
Prep Batch: 280-121123					
LCS 280-121123/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-121123/1-A	Method Blank	T	Solid	3550C	
280-29179-1	J1P8F2	T	Solid	3550C	
280-29179-2	J1P8F3	T	Solid	3550C	
280-29179-2MS	Matrix Spike	T	Solid	3550C	
280-29179-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-29179-3	J1P8F4	T	Solid	3550C	
280-29179-4	J1P8F5	T	Solid	3550C	
Analysis Batch:280-121932					
LCS 280-121123/2-A	Lab Control Sample	T	Solid	8081A	280-121123
MB 280-121123/1-A	Method Blank	T	Solid	8081A	280-121123
280-29179-1	J1P8F2	T	Solid	8081A	280-121123
280-29179-2	J1P8F3	T	Solid	8081A	280-121123
280-29179-2MS	Matrix Spike	T	Solid	8081A	280-121123
280-29179-2MSD	Matrix Spike Duplicate	T	Solid	8081A	280-121123
280-29179-3	J1P8F4	T	Solid	8081A	280-121123
280-29179-4	J1P8F5	T	Solid	8081A	280-121123
Prep Batch: 280-122156					
LCS 280-122156/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-122156/1-A	Method Blank	T	Solid	3550C	
280-29179-1	J1P8F2	T	Solid	3550C	
280-29179-2	J1P8F3	T	Solid	3550C	
280-29179-3	J1P8F4	T	Solid	3550C	
280-29179-4	J1P8F5	T	Solid	3550C	
280-29179-4MS	Matrix Spike	T	Solid	3550C	
280-29179-4MSD	Matrix Spike Duplicate	T	Solid	3550C	

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-122738					
LCS 280-122156/2-A	Lab Control Sample	T	Solid	8082	280-122156
MB 280-122156/1-A	Method Blank	T	Solid	8082	280-122156
280-29179-1	J1P8F2	T	Solid	8082	280-122156
280-29179-2	J1P8F3	T	Solid	8082	280-122156
280-29179-3	J1P8F4	T	Solid	8082	280-122156
280-29179-4	J1P8F5	T	Solid	8082	280-122156
280-29179-4MS	Matrix Spike	T	Solid	8082	280-122156
280-29179-4MSD	Matrix Spike Duplicate	T	Solid	8082	280-122156
Analysis Batch:280-122918					
LCS 280-121120/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-121120
MB 280-121120/1-A	Method Blank	T	Solid	NWTPH-Dx	280-121120
280-29179-1	J1P8F2	T	Solid	NWTPH-Dx	280-121120
280-29179-2	J1P8F3	T	Solid	NWTPH-Dx	280-121120
280-29179-3	J1P8F4	T	Solid	NWTPH-Dx	280-121120
280-29179-3MS	Matrix Spike	T	Solid	NWTPH-Dx	280-121120
280-29179-3MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-121120
280-29179-4	J1P8F5	T	Solid	NWTPH-Dx	280-121120

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-121104					
LCS 280-121104/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-121104/1-A	Method Blank	T	Solid	3050B	
280-29179-1	J1P8F2	T	Solid	3050B	
280-29179-1DU	Duplicate	T	Solid	3050B	
280-29179-1MS	Matrix Spike	T	Solid	3050B	
280-29179-2	J1P8F3	T	Solid	3050B	
280-29179-3	J1P8F4	T	Solid	3050B	
280-29179-4	J1P8F5	T	Solid	3050B	
Prep Batch: 280-121137					
LCS 280-121137/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-121137/1-A	Method Blank	T	Solid	7471A	
280-29179-1	J1P8F2	T	Solid	7471A	
280-29179-1DU	Duplicate	T	Solid	7471A	
280-29179-1MS	Matrix Spike	T	Solid	7471A	
280-29179-2	J1P8F3	T	Solid	7471A	
280-29179-3	J1P8F4	T	Solid	7471A	
280-29179-4	J1P8F5	T	Solid	7471A	
Analysis Batch:280-121649					
LCS 280-121137/2-A	Lab Control Sample	T	Solid	7471A	280-121137
MB 280-121137/1-A	Method Blank	T	Solid	7471A	280-121137
280-29179-1	J1P8F2	T	Solid	7471A	280-121137
280-29179-1DU	Duplicate	T	Solid	7471A	280-121137
280-29179-1MS	Matrix Spike	T	Solid	7471A	280-121137
280-29179-2	J1P8F3	T	Solid	7471A	280-121137
280-29179-3	J1P8F4	T	Solid	7471A	280-121137
280-29179-4	J1P8F5	T	Solid	7471A	280-121137
Analysis Batch:280-122488					
LCS 280-121104/2-A	Lab Control Sample	T	Solid	6010B	280-121104
MB 280-121104/1-A	Method Blank	T	Solid	6010B	280-121104
280-29179-1	J1P8F2	T	Solid	6010B	280-121104
280-29179-1DU	Duplicate	T	Solid	6010B	280-121104
280-29179-1MS	Matrix Spike	T	Solid	6010B	280-121104
280-29179-2	J1P8F3	T	Solid	6010B	280-121104
280-29179-3	J1P8F4	T	Solid	6010B	280-121104
280-29179-4	J1P8F5	T	Solid	6010B	280-121104

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-122370					
280-29179-1	J1P8F2	T	Solid	D-2216	
280-29179-1DU	Duplicate	T	Solid	D-2216	
280-29179-2	J1P8F3	T	Solid	D-2216	
280-29179-3	J1P8F4	T	Solid	D-2216	
280-29179-4	J1P8F5	T	Solid	D-2216	

Report Basis
T = Total

HPLC/IC					
Prep Batch: 280-121122					
LCS 280-121122/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-121122/1-A	Method Blank	T	Solid	3550C	
280-29179-1	J1P8F2	T	Solid	3550C	
280-29179-1MS	Matrix Spike	T	Solid	3550C	
280-29179-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-29179-2	J1P8F3	T	Solid	3550C	
280-29179-3	J1P8F4	T	Solid	3550C	
280-29179-4	J1P8F5	T	Solid	3550C	
Analysis Batch:280-121929					
LCS 280-121122/2-A	Lab Control Sample	T	Solid	8310	280-121122
MB 280-121122/1-A	Method Blank	T	Solid	8310	280-121122
280-29179-1	J1P8F2	T	Solid	8310	280-121122
280-29179-1MS	Matrix Spike	T	Solid	8310	280-121122
280-29179-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-121122
280-29179-2	J1P8F3	T	Solid	8310	280-121122
280-29179-3	J1P8F4	T	Solid	8310	280-121122
280-29179-4	J1P8F5	T	Solid	8310	280-121122

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-121123

Method: 8081A
Preparation: 3550C

Lab Sample ID:	MB 280-121123/1-A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-121123	Lab File ID:	05300046.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	05/30/2012 2159	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.52	U	0.52	1.6
4,4'-DDE	0.23	U	0.23	1.6
4,4'-DDT	0.56	U	0.56	1.6
Aldrin	0.24	U	0.24	1.6
alpha-BHC	0.20	U	0.20	1.6
beta-BHC	0.63	U	0.63	1.6
delta-BHC	0.38	U	0.38	1.6
gamma-BHC (Lindane)	0.44	U	0.44	1.6
Heptachlor	0.20	U	0.20	1.6
Heptachlor epoxide	0.41	U	0.41	1.6
Endosulfan I	0.17	U	0.17	1.6
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	0.47	U	0.47	1.6
gamma-Chlordane	0.25	U	0.25	1.6
Methoxychlor	0.43	U	0.43	3.1
alpha-Chlordane	0.31	U	0.31	1.6
Dieldrin	0.20	U	0.20	1.6
Toxaphene	15	U	15	160

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	72	59 - 115
Decachlorobiphenyl	87	63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Lab Control Sample - Batch: 280-121123

Method: 8081A
Preparation: 3550C

Lab Sample ID:	LCS 280-121123/2-A	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-121123	Lab File ID:	05300039.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.6 g
Analysis Date:	05/30/2012 1959	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	15.8	14.4	91	54 - 130	
4,4'-DDE	15.8	12.5	79	58 - 121	
4,4'-DDT	15.8	13.3	84	57 - 133	
Aldrin	15.8	11.4	72	63 - 115	
alpha-BHC	15.8	11.1	70	64 - 116	
beta-BHC	15.8	11.3	72	67 - 115	
delta-BHC	15.8	11.9	75	67 - 115	
gamma-BHC (Lindane)	15.8	11.2	71	63 - 118	
Heptachlor	15.8	11.5	73	68 - 115	
Heptachlor epoxide	15.8	12.0	76	66 - 117	
Endosulfan I	15.8	11.9	75	65 - 118	
Endosulfan II	15.8	12.3	78	71 - 118	
Endosulfan sulfate	15.8	12.8	81	67 - 123	
Endrin	15.8	15.0	95	77 - 134	
Endrin aldehyde	15.8	10.7	68	47 - 115	
Endrin ketone	15.8	13.0	82	62 - 115	
gamma-Chlordane	15.8	11.9	75	65 - 117	
Methoxychlor	15.8	14.0	89	67 - 130	
alpha-Chlordane	15.8	12.1	76	63 - 120	
Dieldrin	15.8	12.7	80	65 - 127	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	70	59 - 115
Decachlorobiphenyl	87	63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-121123

Method: 8081A
Preparation: 3550C

MS Lab Sample ID:	280-29179-2	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-121123	Lab File ID:	05300042.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	05/30/2012 2051			Final Weight/Volume:	10000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-29179-2	Analysis Batch:	280-121932	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-121123	Lab File ID:	05300043.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	05/30/2012 2108			Final Weight/Volume:	10000 uL
Prep Date:	05/23/2012 2200			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	96	67	54 - 130	37	20		*
4,4'-DDE	81	78	58 - 121	5	15		
4,4'-DDT	87	57	57 - 133	43	29		*
Aldrin	77	78	63 - 115	1	50		
alpha-BHC	80	78	64 - 116	5	17		
beta-BHC	97	81	67 - 115	4	17		
delta-BHC	96	71	67 - 115	13	19		
gamma-BHC (Lindane)	78	77	63 - 118	2	24		
Heptachlor	80	78	68 - 115	3	18		
Heptachlor epoxide	80	77	66 - 117	6	18		
Endosulfan I	78	73	65 - 118	9	26		
Endosulfan II	79	24	71 - 118	109	20		N *
Endosulfan sulfate	85	18	67 - 123	130	22		N *
Endrin	100	88	77 - 134	14	30		
Endrin aldehyde	7	35	47 - 115	133	29	J N	N *
Endrin ketone	82	42	62 - 115	65	20		N *
gamma-Chlordane	79	78	65 - 117	3	21		
Methoxychlor	89	22	67 - 130	121	23		N *
alpha-Chlordane	80	80	63 - 120	2	18		
Dieldrin	82	78	65 - 127	6	25		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	76	77	59 - 115
Decachlorobiphenyl	105	90	63 - 124

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-122156

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-122156/1-A	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-122156	Lab File ID:	009F0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	06/05/2012 1313	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	06/01/2012 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	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	4.6	U	4.6	9.8
Aroclor 1248	4.6	U	4.6	9.8
Aroclor 1254	2.5	U	2.5	9.8
Aroclor 1260	2.5	U	2.5	9.8

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	79	59 - 130
Tetrachloro-m-xylene	72	53 - 128

Lab Control Sample - Batch: 280-122156

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-122156/2-A	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-122156	Lab File ID:	010F1001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	06/05/2012 1336	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	06/01/2012 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	31.3	25.9	83	54 - 132	
Aroclor 1260	31.3	27.9	89	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	78	59 - 130
Tetrachloro-m-xylene	76	53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-122156

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-29179-4	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-122156	Lab File ID:	016F1601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	06/05/2012 1555			Final Weight/Volume:	5000 uL
Prep Date:	06/01/2012 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-29179-4	Analysis Batch:	280-122738	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-122156	Lab File ID:	017F1701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	06/05/2012 1618			Final Weight/Volume:	5000 uL
Prep Date:	06/01/2012 1600			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	81	81	54 - 132	1	26		
Aroclor 1260	86	78	62 - 129	7	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	76	75	59 - 130
Tetrachloro-m-xylene	76	76	53 - 128

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-121120

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-121120/1-A	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-121120	Lab File ID:	077B2901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	06/05/2012 0135	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	960	U	960	3900
C10-C28	660	U	660	3900

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	77	49 - 115

Lab Control Sample - Batch: 280-121120

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-121120/2-A	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-121120	Lab File ID:	078B3001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	06/05/2012 0200	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	63500	69500	109	57 - 115	
C10-C28	63500	69500	109	53 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-121120

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-29179-3	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-121120	Lab File ID:	082B3401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.9 g
Analysis Date:	06/05/2012 0337			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-29179-3	Analysis Batch:	280-122918	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-121120	Lab File ID:	083B3501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.1 g
Analysis Date:	06/05/2012 0401			Final Weight/Volume:	1000 uL
Prep Date:	05/23/2012 2315			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	102	101	57 - 115	7	23		
C10-C28	100	100	56 - 115	9	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	79	83	49 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-121122

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-121122/1-A	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-121122	Lab File ID:	G0531029.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	06/01/2012 0028	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.8	U	9.8	98
Acenaphthylene	8.9	U	8.9	98
Anthracene	3.0	U	3.0	20
Benzo[a]anthracene	3.1	U	3.1	15
Benzo[a]pyrene	6.3	U	6.3	15
Benzo[b]fluoranthene	4.1	U	4.1	15
Benzo[g,h,i]perylene	7.1	U	7.1	30
Benzo[k]fluoranthene	3.9	U	3.9	15
Chrysene	4.8	U	4.8	39
Dibenzo(a,h)anthracene	11	U	11	30
Fluoranthene	13	U	13	39
Fluorene	5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene	12	U	12	30
Naphthalene	12	U	12	98
Phenanthrene	12	U	12	39
Pyrene	12	U	12	39

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	88	72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Lab Control Sample - Batch: 280-121122

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-121122/2-A	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-121122	Lab File ID:	G0531030.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	06/01/2012 0058	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2000	1930	97	78 - 116	
Acenaphthylene	2000	1840	92	76 - 115	
Anthracene	2000	1950	98	74 - 115	
Benzo[a]anthracene	2000	2080	104	85 - 120	
Benzo[a]pyrene	2000	1910	96	74 - 121	
Benzo[b]fluoranthene	2000	2120	106	85 - 115	
Benzo[g,h,i]perylene	2000	2020	101	85 - 120	
Benzo[k]fluoranthene	2000	2030	102	85 - 115	
Chrysene	2000	2060	103	83 - 115	
Dibenzo(a,h)anthracene	2000	2060	103	83 - 115	
Fluoranthene	2000	2080	104	83 - 115	
Fluorene	2000	1920	96	80 - 115	
Indeno[1,2,3-cd]pyrene	2000	2140	107	85 - 123	
Naphthalene	2000	1840	92	80 - 121	
Phenanthrene	2000	1970	99	80 - 115	
Pyrene	2000	2050	102	75 - 116	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	90	72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-121122

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-29179-1	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-121122	Lab File ID:	G0531032.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.9 g
Analysis Date:	06/01/2012 0159			Final Weight/Volume:	4000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-29179-1	Analysis Batch:	280-121929	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-121122	Lab File ID:	G0531033.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.6 g
Analysis Date:	06/01/2012 0230			Final Weight/Volume:	4000 uL
Prep Date:	05/23/2012 2200			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	94	96	78 - 116	0	20		
Acenaphthylene	93	95	76 - 115	0	21		
Anthracene	96	100	74 - 115	2	20		
Benzo[a]anthracene	98	101	85 - 120	1	20		
Benzo[a]pyrene	92	97	74 - 121	3	20		
Benzo[b]fluoranthene	100	103	85 - 115	1	20		
Benzo[g,h,i]perylene	92	87	85 - 120	7	20		
Benzo[k]fluoranthene	100	103	85 - 115	1	20		
Chrysene	100	105	83 - 115	2	20		
Dibenzo(a,h)anthracene	96	102	83 - 115	5	20		
Fluoranthene	101	105	83 - 115	2	20		
Fluorene	99	102	80 - 115	1	20		
Indeno[1,2,3-cd]pyrene	101	108	85 - 123	4	20		
Naphthalene	90	90	80 - 121	2	20		
Phenanthrene	98	102	80 - 115	2	20		
Pyrene	99	105	75 - 116	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	93	94	72 - 115

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-121104

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-121104/1-A	Analysis Batch:	280-122488	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/04/2012 1447	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				
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
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	3.8	U	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: 280-29179-1
Sdg Number: J01517

Lab Control Sample - Batch: 280-121104

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-121104/2-A	Analysis Batch:	280-122488	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/04/2012 1449	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	208.7	104	82 - 116	
Antimony	50.0	50.51	101	82 - 110	
Arsenic	100	102.4	102	85 - 110	
Barium	200	203.2	102	87 - 112	
Beryllium	5.00	5.00	100	84 - 114	
Boron	100	102.3	102	81 - 110	
Cadmium	10.0	10.53	105	87 - 110	
Calcium	5000	5019	100	82 - 114	
Chromium	20.0	20.45	102	84 - 114	
Cobalt	50.0	50.44	101	87 - 110	
Copper	25.0	25.58	102	88 - 110	
Iron	100	102.6	103	87 - 120	
Lead	50.0	50.08	100	86 - 110	
Magnesium	5000	5079	102	90 - 110	
Manganese	50.0	50.72	101	88 - 110	
Molybdenum	100	102.2	102	86 - 110	
Nickel	50.0	50.41	101	87 - 110	
Potassium	5000	5107	102	89 - 110	
Selenium	200	206.2	103	83 - 110	
Silicon	1000	149.7	15	10 - 70	
Silver	5.00	5.15	103	87 - 114	
Sodium	5000	5190	104	90 - 112	
Vanadium	50.0	51.77	104	88 - 110	
Zinc	50.0	51.05	102	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Matrix Spike - Batch: 280-121104

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-29179-1	Analysis Batch:	280-122488	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	06/04/2012 1459	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	8910		202	11580	1321	50 - 200	4
Antimony	0.48	B	50.6	24.50	47	20 - 200	
Arsenic	2.9		101	95.09	91	76 - 111	
Barium	81.6		202	274.4	95	52 - 159	
Beryllium	0.22		5.06	4.77	90	72 - 105	
Boron	4.3		101	94.29	89	75 - 107	
Cadmium	0.19	B	10.1	9.78	95	40 - 130	
Calcium	5060		5060	10490	107	43 - 165	
Chromium	12.1		20.2	31.58	96	70 - 200	
Cobalt	6.2		50.6	51.40	89	72 - 106	
Copper	13.1		25.3	36.59	93	37 - 187	
Iron	17200		101	18120	923	70 - 200	4
Lead	25.0		50.6	65.75	81	70 - 200	
Magnesium	4070		5060	9224	102	64 - 145	
Manganese	302		50.6	364.8	124	40 - 200	4
Molybdenum	0.30	B	101	89.68	88	75 - 103	
Nickel	11.2		50.6	56.09	89	61 - 126	
Potassium	1890		5060	6913	99	56 - 172	
Selenium	0.88	U	202	185.2	92	76 - 104	
Silicon	514		1010	748.0	23	20 - 200	
Silver	0.16	U	5.06	4.77	94	75 - 141	
Sodium	236		5060	5178	98	78 - 111	
Vanadium	39.0		50.6	90.63	102	50 - 169	
Zinc	53.4		50.6	99.01	90	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Duplicate - Batch: 280-121104

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-29179-1	Analysis Batch:	280-122488	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-121104	Lab File ID:	26a060412.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	06/04/2012 1457	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/01/2012 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	8910		8687	3	40	
Antimony	0.48	B	0.39	NC	40	U
Arsenic	2.9		2.81	2	30	
Barium	81.6		84.86	4	30	
Beryllium	0.22		0.210	7	30	
Boron	4.3		4.20	3	30	
Cadmium	0.19	B	0.169	12	30	B
Calcium	5060		4761	6	30	
Chromium	12.1		10.93	10	40	
Cobalt	6.2		6.03	3	30	
Copper	13.1		12.98	0.9	30	
Iron	17200		17000	1	40	
Lead	25.0		24.55	2	40	
Magnesium	4070		3967	2	30	
Manganese	302		296.7	2	40	
Molybdenum	0.30	B	0.27	NC	30	U
Nickel	11.2		10.32	8	30	
Potassium	1890		1885	0.4	40	
Selenium	0.88	U	0.88	NC	30	U
Silicon	514		528.6	3	40	
Silver	0.16	U	0.16	NC	30	U
Sodium	236		215.9	9	30	
Vanadium	39.0		38.54	1	30	
Zinc	53.4		52.41	2	40	

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Method Blank - Batch: 280-121137

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-121137/1-A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	05/25/2012 1837	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-121137

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-121137/2-A	Analysis Batch:	280-121649	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	05/25/2012 1839	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.412	99	87 - 111	

Matrix Spike - Batch: 280-121137

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-29179-1	Analysis Batch:	280-121649	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.51 g
Analysis Date:	05/25/2012 1851	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.016	B	0.511	0.505	96	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Duplicate - Batch: 280-121137

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-29179-1	Analysis Batch:	280-121649	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-121137	Lab File ID:	120525aa3.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.51 g
Analysis Date:	05/25/2012 1848	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2012 1235				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.016	B	0.0120	28	20	B M

Client: Washington Closure Hanford

Job Number: 280-29179-1
Sdg Number: J01517

Duplicate - Batch: 280-122370

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-29179-1	Analysis Batch:	280-122370	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:	06/04/2012 1206	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	4.0	4.2	3	20	