0096116

SAF-RC-211
100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 100-F – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 5/3/11
INITIAL/DATE

COMMENTS:

SDG J01066 SAF-RC-211

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-IU-2 600-307

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-14139-1

SDG Number: J01066

Job Description: SAF# RC-211

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

Attention: Joan H Kessner

Approved for release.
Michael T Dedio
Project Mgmt. Assistant
4/18/2011 4:56 PM

Designee for
Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
04/18/2011

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: 280-14139-1

SDG #: J01066
SAF#: RC-211

Date SDG Closed: April 1, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H049	280-14139-1	6010/7471/1311-6010-7470/ NWTPH-G/ 8270C/8310/8082/9056M/353.2	6010B/7471A/NWTPH-G/ 8270C/8310/8082/9056M/353.2
J1H049	280-14139-2	NWTPH-Dx	NWTPH-Dx

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 sample was received on 4/1/2011; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 3.4, 4.4, and 2.7 C.

Sample J1H049 was logged as two samples one soil (280-14139-1) and one waste (280-14139-2) as the laboratory was unable to extract the NWTPH-Dx as a soil sample.

Sample J1H049, requesting TCLP Metals 1311/6010B/7470A analyses, was leached and placed on hold, as instructed on the chain-of-custody.

GC/MS SEMIVOLATILES - SW846 8270C
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the presence of interfering, non-target compounds, sample J1H049 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required. The laboratory noted that analysis at a less diluted concentration would jeopardize the integrity of the instrument.

Surrogate recoveries have been "D" flagged in sample J1H049, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

Low levels of Bis(2-ethylhexyl) phthalate are present in the method blank associated with batch 280-60435. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in sample J1H049 due to matrix interferences. It can be noted that these compounds were adequately resolved in associated standards, indicating the instrument is achieving separation. The combined peak was reported as Benzo(b)fluoranthene, while Benzo(k)fluoranthene was reported as undetected even though it may be present. Associated results have been "K" flagged.

Spike compound recoveries, RPD data and surrogate recoveries have been "D" flagged in the MS/MSD performed on sample J1H049, as the recoveries obtained are calculated from diluted samples and are not considered reliable. The acceptable LCS analysis data indicated that the analytical system was operating within control.

No other anomalies were encountered.

GC VOLATILES - NWTPH-Gx - GRO

Low levels of Gasoline are present in the method blank associated with batch 280-61929. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

The method required MS/MSD could not be performed for batch 280-61929, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs

Surrogate Decachlorobiphenyl was recovered outside the control limits, biased high, in sample J1H049. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The laboratory noted that sample J1H049 contained more than one Aroclor component. Results should be considered estimated due to shared peaks.

The method required MS/MSD could not be performed for batch 280-61929, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO

The MS/MSD performed on sample J1H049 exhibited the percent recovery outside the control limits for C10-C36, 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.

No other anomalies were encountered.

HPLC - SW846 8310 - PAHs

The RPD between the primary and confirmation columns exceeded 40% for analytes in samples J1H049. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

Surrogate Terphenyl-d14 was recovered outside the control limits, biased low, in sample J1H049. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1H049 exhibited the percent recoveries outside the control limits, and the associated sample result has been flagged "N". RPD data was also outside of control limits. In addition, surrogate Terphenyl-d14 was recovered outside the control limits in the MS/MSD. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-60434 indicates that physical and chemical interferences are present for Cobalt, Lead, Nickel and Zinc. Results have been flagged with an "X".

It can be noted that the sample amount was greater than four times the spike amount for several elements in the Matrix Spike performed on sample J1H049; therefore, control limits are not applicable.

The duplicate analysis of sample J1H049 exhibited RPD data outside the control limits for Arsenic, Copper, Iron 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.

Mercury was recovered outside the control limits in the SW846 7471A Matrix Spike performed on sample J1H049, and the associated sample result have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE

The Matrix Spike performed on sample J1H049 exhibited percent recoveries outside the control limits, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The duplicate analysis of sample J1H049 exhibited RPD data outside the control limits, 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.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

The Matrix Spike performed on sample J1H049 exhibited percent recoveries outside the control limits for Orthophosphate as P and Fluoride, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
GC VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Analyzed for but not detected.
	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

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Section	Qualifier	Description
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.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	M	Sample duplicate precision not met.
HPLC/IC		
	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.
	*	MS/MSD RPD exceeded the control limit
	*	Surrogate exceeds the control limit

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Gx	
Purge and Trap	TAL DEN		SW846 5030B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
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
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	
Matrix: Waste			
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Waste Dilution	TAL DEN		SW846 3580A

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: 280-14139-1
Sdg Number: J01066

Method	Analyst	Analyst ID
SW846 8270C	Hoffman, Michael G	MGH
NWTPH NWTPH-Gx	Smith, Matthew P	MPS
SW846 8082	Pavlakovich, Adam M	AMP
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 7471A	Stoltz, Katie	KS
MCAWW 353.2	Stosak, Lara E	LES
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Berry III, Paul B	PBB
SW846 8310	Hall, Koley J	KJH

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-14139-1	J1H049	Solid	03/30/2011 1340	04/01/2011 0830
280-14139-2	J1H049	Waste	03/30/2011 1340	04/01/2011 0830

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		87	U D	87	2800
Acenaphthylene		140	U D	140	2800
Anthracene		140	U D	140	2800
Benzo[a]anthracene		350	J D	170	2800
Benzo[a]pyrene		170	U D	170	2800
Benzo[b]fluoranthene		680	J D K	220	2800
Benzo[ghi]perylene		190	J D	130	2800
Benzo[k]fluoranthene		340	U D K	340	2800
Bis(2-chloroethoxy)methane		190	U D	190	2800
Bis(2-chloroethyl)ether		140	U D	140	2800
bis (2-chloroisopropyl) ether		190	U D	190	2800
Bis(2-ethylhexyl) phthalate		390	U D	390	2800
4-Bromophenyl phenyl ether		160	U D	160	2800
Butyl benzyl phthalate		360	U D	360	2800
Carbazole		300	U D	300	2800
4-Chloroaniline		690	U D	690	2800
4-Chloro-3-methylphenol		560	U D	560	2800
2-Chloronaphthalene		84	U D	84	2800
2-Chlorophenol		180	U D	180	2800
4-Chlorophenyl phenyl ether		180	U D	180	2800
Chrysene		230	U D	230	2800
Dibenz(a,h)anthracene		160	U D	160	2800
Dibenzofuran		170	U D	170	2800
1,2-Dichlorobenzene		190	U D	190	2800
1,3-Dichlorobenzene		100	U D	100	2800
1,4-Dichlorobenzene		110	U D	110	2800
3,3'-Dichlorobenzidine		760	U D	760	5600
2,4-Dichlorophenol		84	U D	84	2800
Diethyl phthalate		220	U D	220	2800
2,4-Dimethylphenol		560	U D	560	2800
Dimethyl phthalate		190	U D	190	2800
Di-n-butyl phthalate		240	U D	240	2800
4,6-Dinitro-2-methylphenol		2800	U D	2800	5600
2,4-Dinitrophenol		2800	U D	2800	7000
2,4-Dinitrotoluene		560	U D	560	2800
2,6-Dinitrotoluene		240	U D	240	2800
Di-n-octyl phthalate		120	U D	120	2800
Fluoranthene		300	U D	300	2800
Fluorene		150	U D	150	2800
Hexachlorobenzene		240	U D	240	2800
Hexachlorobutadiene		84	U D	84	2800
Hexachlorocyclopentadiene		420	U D	420	2800
Hexachloroethane		180	U D	180	2800
Indeno[1,2,3-cd]pyrene		190	U D	190	2800
Isophorone		140	U D	140	2800
2-Methylnaphthalene		160	U D	160	2800

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		110	U D	110	2800
3 & 4 Methylphenol		280	U D	280	2800
Naphthalene		260	U D	260	2800
2-Nitroaniline		420	U D	420	2800
3-Nitroaniline		620	U D	620	2800
4-Nitroaniline		610	U D	610	2800
Nitrobenzene		190	U D	190	2800
2-Nitrophenol		84	U D	84	2800
4-Nitrophenol		820	U D	820	5600
N-Nitrosodi-n-propylamine		260	U D	260	2800
N-Nitrosodiphenylamine		180	U D	180	2800
Pentachlorophenol		2800	U D	2800	5600
Phenanthrene		140	U D	140	2800
Phenol		150	U D	150	2800
Pyrene		160	J D	100	2800
1,2,4-Trichlorobenzene		240	U D	240	2800
2,4,5-Trichlorophenol		84	U D	84	2800
2,4,6-Trichlorophenol		84	U D	84	2800

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	49	D	50 - 120
2-Fluorophenol	50	D	53 - 120
Nitrobenzene-d5	49	D	50 - 120
Phenol-d5	47	D	52 - 120
Terphenyl-d14	53	D	55 - 120
2,4,6-Tribromophenol	53	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.43	2400	J N

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Gx	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Prep Method:	5030B	Prep Batch:	280-61929	Initial Weight/Volume:	9.66 g
Dilution:	1.0			Final Weight/Volume:	250 mL
Analysis Date:	04/13/2011 0152			Injection Volume:	5 mL
Prep Date:	04/12/2011 1916			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		410	J B	180	670

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	78		77 - 123

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-60446	Initial Weight/Volume:	32.6 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/04/2011 1855			Injection Volume:	1 uL
Prep Date:	04/01/2011 1933			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		7.5	J	2.6	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	518	*	59 - 130
Tetrachloro-m-xylene	84		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-2
Client Matrix: Waste

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Prep Method:	3580A	Prep Batch:	280-60714	Lab File ID:	007B0701.D
Dilution:	1.0			Initial Weight/Volume:	1.0191 g
Analysis Date:	04/05/2011 2010			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3500000	N	290000	980000
C10-C28		900000	J N	200000	980000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	76		55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-60439	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	04/04/2011 2319			Injection Volume:	20 uL
Prep Date:	04/01/2011 1929			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U N	11	110
Acenaphthylene		9.6	U N	9.6	110
Anthracene		3.2	U N	3.2	21
Benzo[a]anthracene		3.4	U N	3.4	16
Benzo[a]pyrene		870	N X	6.8	16
Benzo[b]fluoranthene		4.5	U N	4.5	16
Benzo[g,h,i]perylene		7.7	U N	7.7	32
Benzo[k]fluoranthene		4.2	U N	4.2	16
Chrysene		350	N X	5.2	43
Dibenzo(a,h)anthracene		12	U N	12	32
Fluoranthene		480	N X	14	43
Fluorene		5.6	U N	5.6	32
Indeno[1,2,3-cd]pyrene		13	U N	13	32
Naphthalene		13	U N	13	110
Phenanthrene		300	N	13	43
Pyrene		150	N	13	43

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	71	*	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61068	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	04/06/2011 1438			Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7560		1.4	4.5
Antimony		18.6		0.34	0.54
Arsenic		7.3	M	0.60	0.90
Barium		523		0.069	0.45
Beryllium		0.23		0.030	0.18
Boron		9.0		0.89	1.8
Cadmium		2.2		0.037	0.18
Calcium		35400		12.7	45.2
Chromium		85.2		0.052	0.18
Cobalt		10.2	X	0.090	0.90
Copper		133	M	0.20	0.90
Iron		12600	M	3.4	4.5
Lead		662	X	0.24	0.45
Magnesium		7510		3.3	18.1
Manganese		237		0.090	0.90
Molybdenum		2.1		0.23	1.8
Nickel		123	X	0.11	3.6
Potassium		1740		37.0	271
Selenium		0.78	U	0.78	0.90
Silicon		1060		5.1	9.0
Silver		0.89		0.14	0.18
Sodium		659		53.3	108
Vanadium		176		0.085	1.8
Zinc		783	X	0.36	0.90

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61031	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	04/05/2011 1745			Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.030	M N	0.0056	0.017

General Chemistry

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	4.0	M N	mg/Kg	0.38	0.81	1.0	353.2
Analysis Batch: 280-60832	Analysis Date: 04/05/2011 1237						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Nitrate as N-Soluble	7.4		mg/Kg	0.34	2.7	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Bromide-Soluble	0.42	U	mg/Kg	0.42	2.1	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	2.7	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U N	mg/Kg	1.3	5.4	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Sulfate-Soluble	123		mg/Kg	1.9	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Fluoride-Soluble	0.92	B N	mg/Kg	0.88	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-60392	Analysis Date: 04/01/2011 1400						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-60435					
LCS 280-60435/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-60435/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
280-14139-1MS	Matrix Spike	T	Solid	3550C	
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-60731					
LCS 280-60435/2-A	Lab Control Sample	T	Solid	8270C	280-60435
MB 280-60435/1-A	Method Blank	T	Solid	8270C	280-60435
280-14139-1	J1H049	T	Solid	8270C	280-60435
280-14139-1MS	Matrix Spike	T	Solid	8270C	280-60435
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-60435

Report Basis
T = Total

GC VOA					
Prep Batch: 280-61929					
LCS 280-61929/1-A	Lab Control Sample	T	Solid	5030B	
LCSD 280-61929/2-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 280-61929/3-A	Method Blank	T	Solid	5030B	
280-14139-1	J1H049	T	Solid	5030B	
Analysis Batch:280-62066					
LCS 280-61929/1-A	Lab Control Sample	T	Solid	NWTPH-Gx	280-61929
LCSD 280-61929/2-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Gx	280-61929
MB 280-61929/3-A	Method Blank	T	Solid	NWTPH-Gx	280-61929
280-14139-1	J1H049	T	Solid	NWTPH-Gx	280-61929

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-60446					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-60446/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
Prep Batch: 280-60714					
LCS 280-60714/2-A	Lab Control Sample	T	Waste	3580A	
MB 280-60714/1-A	Method Blank	T	Waste	3580A	
280-14139-2	J1H049	T	Waste	3580A	
280-14139-2MS	Matrix Spike	T	Waste	3580A	
280-14139-2MSD	Matrix Spike Duplicate	T	Waste	3580A	
Analysis Batch:280-60773					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	8082	280-60446
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	8082	280-60446
MB 280-60446/1-A	Method Blank	T	Solid	8082	280-60446
280-14139-1	J1H049	T	Solid	8082	280-60446
Analysis Batch:280-60774					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	8082	280-60446
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	8082	280-60446
MB 280-60446/1-A	Method Blank	T	Solid	8082	280-60446
280-14139-1	J1H049	T	Solid	8082	280-60446
Analysis Batch:280-60894					
LCS 280-60714/2-A	Lab Control Sample	T	Waste	NWTPH-Dx	280-60714
MB 280-60714/1-A	Method Blank	T	Waste	NWTPH-Dx	280-60714
280-14139-2	J1H049	T	Waste	NWTPH-Dx	280-60714
280-14139-2MS	Matrix Spike	T	Waste	NWTPH-Dx	280-60714
280-14139-2MSD	Matrix Spike Duplicate	T	Waste	NWTPH-Dx	280-60714

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-60434					
LCS 280-60434/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-60434/1-A	Method Blank	T	Solid	3050B	
280-14139-1	J1H049	T	Solid	3050B	
280-14139-1DU	Duplicate	T	Solid	3050B	
280-14139-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-60720					
LCS 280-60720/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-60720/1-A	Method Blank	T	Solid	7471A	
280-14139-1	J1H049	T	Solid	7471A	
280-14139-1DU	Duplicate	T	Solid	7471A	
280-14139-1MS	Matrix Spike	T	Solid	7471A	
Analysis Batch:280-61031					
LCS 280-60720/2-A	Lab Control Sample	T	Solid	7471A	280-60720
MB 280-60720/1-A	Method Blank	T	Solid	7471A	280-60720
280-14139-1	J1H049	T	Solid	7471A	280-60720
280-14139-1DU	Duplicate	T	Solid	7471A	280-60720
280-14139-1MS	Matrix Spike	T	Solid	7471A	280-60720
Analysis Batch:280-61068					
LCS 280-60434/2-A	Lab Control Sample	T	Solid	6010B	280-60434
MB 280-60434/1-A	Method Blank	T	Solid	6010B	280-60434
280-14139-1	J1H049	T	Solid	6010B	280-60434
280-14139-1DU	Duplicate	T	Solid	6010B	280-60434
280-14139-1MS	Matrix Spike	T	Solid	6010B	280-60434

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-60392					
280-14139-1	J1H049	T	Solid	D-2216	
280-14139-1DU	Duplicate	T	Solid	D-2216	
Prep Batch: 280-60705					
LCS 280-60705/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-60705/1-A	Method Blank	S	Solid	DI Leach	
280-14139-1	J1H049	S	Solid	DI Leach	
280-14139-1DU	Duplicate	S	Solid	DI Leach	
280-14139-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-60832					
LCS 280-60705/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-60705/1-A	Method Blank	S	Solid	353.2	
280-14139-1	J1H049	S	Solid	353.2	
280-14139-1DU	Duplicate	S	Solid	353.2	
280-14139-1MS	Matrix Spike	S	Solid	353.2	
Prep Batch: 280-60849					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-60849/2-A	Method Blank	S	Solid	DI Leach	
280-14139-1	J1H049	S	Solid	DI Leach	
280-14139-1DU	Duplicate	S	Solid	DI Leach	
280-14139-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-60988					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-60849/2-A	Method Blank	S	Solid	9056M	
280-14139-1	J1H049	S	Solid	9056M	
280-14139-1DU	Duplicate	S	Solid	9056M	
280-14139-1MS	Matrix Spike	S	Solid	9056M	
Analysis Batch:280-60991					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-60849/2-A	Method Blank	S	Solid	9056M	
280-14139-1	J1H049	S	Solid	9056M	
280-14139-1DU	Duplicate	S	Solid	9056M	
280-14139-1MS	Matrix Spike	S	Solid	9056M	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-60439					
LCS 280-60439/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-60439/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
280-14139-1MS	Matrix Spike	T	Solid	3550C	
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-60648					
LCS 280-60439/2-A	Lab Control Sample	T	Solid	8310	280-60439
MB 280-60439/1-A	Method Blank	T	Solid	8310	280-60439
280-14139-1	J1H049	T	Solid	8310	280-60439
280-14139-1MS	Matrix Spike	T	Solid	8310	280-60439
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-60439

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-60435/1-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2878.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	10	U	10	330
Acenaphthylene	17	U	17	330
Anthracene	17	U	17	330
Benzo[a]anthracene	20	U	20	330
Benzo[a]pyrene	20	U	20	330
Benzo[b]fluoranthene	26	U	26	330
Benzo[ghi]perylene	16	U	16	330
Benzo[k]fluoranthene	40	U	40	330
Bis(2-chloroethoxy)methane	23	U	23	330
Bis(2-chloroethyl)ether	16	U	16	330
bis (2-chloroisopropyl) ether	23	U	23	330
Bis(2-ethylhexyl) phthalate	84.6	J	46	330
4-Bromophenyl phenyl ether	19	U	19	330
Butyl benzyl phthalate	43	U	43	330
Carbazole	36	U	36	330
4-Chloroaniline	81	U	81	330
4-Chloro-3-methylphenol	66	U	66	330
2-Chloronaphthalene	9.9	U	9.9	330
2-Chlorophenol	21	U	21	330
4-Chlorophenyl phenyl ether	21	U	21	330
Chrysene	27	U	27	330
Dibenz(a,h)anthracene	19	U	19	330
Dibenzofuran	20	U	20	330
1,2-Dichlorobenzene	22	U	22	330
1,3-Dichlorobenzene	12	U	12	330
1,4-Dichlorobenzene	14	U	14	330
3,3'-Dichlorobenzidine	89	U	89	660
2,4-Dichlorophenol	9.9	U	9.9	330
Diethyl phthalate	26	U	26	330
2,4-Dimethylphenol	66	U	66	330
Dimethyl phthalate	23	U	23	330
Di-n-butyl phthalate	29	U	29	330
4,6-Dinitro-2-methylphenol	330	U	330	660
2,4-Dinitrophenol	330	U	330	820
2,4-Dinitrotoluene	66	U	66	330
2,6-Dinitrotoluene	28	U	28	330
Di-n-octyl phthalate	14	U	14	330
Fluoranthene	36	U	36	330
Fluorene	18	U	18	330
Hexachlorobenzene	29	U	29	330
Hexachlorobutadiene	9.9	U	9.9	330
Hexachlorocyclopentadiene	50	U	50	330
Hexachloroethane	21	U	21	330
Indeno[1,2,3-cd]pyrene	22	U	22	330
Isophorone	17	U	17	330

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-60435/1-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2878.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	19	U	19	330
2-Methylphenol	13	U	13	330
3 & 4 Methylphenol	33	U	33	330
Naphthalene	31	U	31	330
2-Nitroaniline	50	U	50	330
3-Nitroaniline	73	U	73	330
4-Nitroaniline	72	U	72	330
Nitrobenzene	22	U	22	330
2-Nitrophenol	9.9	U	9.9	330
4-Nitrophenol	96	U	96	660
N-Nitrosodi-n-propylamine	31	U	31	330
N-Nitrosodiphenylamine	21	U	21	330
Pentachlorophenol	330	U	330	660
Phenanthrene	17	U	17	330
Phenol	18	U	18	330
Pyrene	12	U	12	330
1,2,4-Trichlorobenzene	28	U	28	330
2,4,5-Trichlorophenol	9.9	U	9.9	330
2,4,6-Trichlorophenol	9.9	U	9.9	330

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	93	50 - 120
2-Fluorophenol	97	53 - 120
Nitrobenzene-d5	88	50 - 120
Phenol-d5	96	52 - 120
Terphenyl-d14	111	55 - 120
2,4,6-Tribromophenol	90	51 - 120

Method Blank TICs- Batch: 280-60435

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	2.21	142	J N
	Unknown	2.26	197	J N
	Unknown	2.37	267	J N
	Unknown	2.44	4170	J N

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-60435/2-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2871.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	04/04/2011 1443	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2580	2060	80	52 - 120	
Anthracene	2580	2240	87	57 - 120	
Carbazole	2580	2250	87	54 - 120	
4-Chloro-3-methylphenol	2580	1860	72	57 - 120	
2-Chlorophenol	2580	2000	78	53 - 120	
1,4-Dichlorobenzene	2580	1810	70	46 - 120	
2,4-Dinitrotoluene	2580	2240	87	53 - 120	
2-Methylnaphthalene	2580	2020	78	55 - 120	
2-Methylphenol	2580	2010	78	51 - 120	
4-Nitrophenol	2580	2060	80	41 - 120	
N-Nitrosodi-n-propylamine	2580	2150	83	51 - 120	
Pentachlorophenol	2580	1730	67	30 - 120	
Phenol	2580	2110	82	54 - 120	
Pyrene	2580	2120	82	50 - 120	
1,2,4-Trichlorobenzene	2580	1800	70	50 - 120	
2,4,6-Trichlorophenol	2580	1960	76	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	85	50 - 120
2-Fluorophenol	84	53 - 120
Nitrobenzene-d5	81	50 - 120
Phenol-d5	86	52 - 120
Terphenyl-d14	89	55 - 120
2,4,6-Tribromophenol	84	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60435

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-14139-1	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2880.D
Dilution:	8.0	Leach Batch:	N/A	Initial Weight/Volume:	31.3 g
Analysis Date:	04/04/2011 1732			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14139-1	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2881.D
Dilution:	8.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	04/04/2011 1751			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	33	45	52 - 120	35	30	J D	J D
Anthracene	32	48	57 - 120	42	30	J D	J D
Carbazole	32	47	54 - 120	39	30	J D	J D
4-Chloro-3-methylphenol	24	32	57 - 120	34	30	J D	J D
2-Chlorophenol	32	49	53 - 120	45	30	J D	J D
1,4-Dichlorobenzene	33	43	46 - 120	28	30	J D	J D
2,4-Dinitrotoluene	32	44	53 - 120	35	30	J D	J D
2-Methylnaphthalene	33	45	55 - 120	32	30	J D	J D
2-Methylphenol	31	38	51 - 120	24	30	J D	J D
4-Nitrophenol	0	0	41 - 120	NC	30	U D	U D
N-Nitrosodi-n-propylamine	30	49	51 - 120	50	30	J D	J D
Pentachlorophenol	0	0	30 - 120	NC	30	U D	U D
Phenol	33	45	54 - 120	33	30	J D	J D
Pyrene	34	46	50 - 120	28	38	J D	J D
1,2,4-Trichlorobenzene	28	43	50 - 120	46	30	J D	J D
2,4,6-Trichlorophenol	27	42	50 - 120	48	30	J D	J D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2-Fluorobiphenyl	34	D	49	D	50 - 120
2-Fluorophenol	34	D	48	D	53 - 120
Nitrobenzene-d5	33	D	49	D	50 - 120
Phenol-d5	33	D	48	D	52 - 120
Terphenyl-d14	32	D	47	D	55 - 120
2,4,6-Tribromophenol	43	D	51	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-61929

Method: NWTPH-Gx
Preparation: 5030B

Lab Sample ID:	MB 280-61929/3-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	214F1901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.44 g
Analysis Date:	04/13/2011 0110	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline	258	J	160	570

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene	94	77 - 123

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-61929

Method: NWTPH-Gx
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-61929/1-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	212F1701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.82 g
Analysis Date:	04/12/2011 2345	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-61929/2-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	213F1801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.91 g
Analysis Date:	04/13/2011 0027	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline	100	102	85 - 153	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	108	106	77 - 123

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60446

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-60446/1-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	019F1901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	04/04/2011 1751	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.3
Aroclor 1221	7.5	U	7.5	15
Aroclor 1232	1.9	U	1.9	9.3
Aroclor 1242	4.4	U	4.4	9.3
Aroclor 1248	4.4	U	4.4	9.3
Aroclor 1254	2.4	U	2.4	9.3
Aroclor 1260	2.4	U	2.4	9.3

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	106	59 - 130
Tetrachloro-m-xylene	98	53 - 128

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-60446

Method: 8082
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-60446/2-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	020F2001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.8 g
Analysis Date:	04/04/2011 1812	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY
LCSD Lab Sample ID:	LCSD 280-60446/3-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	021F2101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.4 g
Analysis Date:	04/04/2011 1833	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aroclor 1016	116	104	54 - 132	7	26		
Aroclor 1260	114	102	62 - 129	7	26		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Decachlorobiphenyl	110	102	59 - 130
Tetrachloro-m-xylene	105	97	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

Lab Sample ID:	MB 280-60714/1-A	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	005B0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/05/2011 1914	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	300000	U	300000	1000000
C10-C28	200000	U	200000	1000000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	82	55 - 125

Lab Control Sample - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

Lab Sample ID:	LCS 280-60714/2-A	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	006B0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/05/2011 1942	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	20000000	23100000	115	57 - 138	
C10-C28	20000000	23100000	115	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	90	55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

MS Lab Sample ID:	280-14139-2	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	008B0801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0139 g
Analysis Date:	04/05/2011 2038			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14139-2	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0030 g
Analysis Date:	04/05/2011 2106			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	137	138	57 - 134	1	38	N	N
C10-C28	131	130	53 - 115	1	23	N	N

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	89	83	55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60439

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-60439/1-A	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	04/04/2011 2217	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.3	U	9.3	93
Acenaphthylene	8.4	U	8.4	93
Anthracene	2.9	U	2.9	19
Benzo[a]anthracene	3.0	U	3.0	14
Benzo[a]pyrene	6.0	U	6.0	14
Benzo[b]fluoranthene	3.9	U	3.9	14
Benzo[g,h,i]perylene	6.7	U	6.7	28
Benzo[k]fluoranthene	3.7	U	3.7	14
Chrysene	4.5	U	4.5	37
Dibenzo(a,h)anthracene	10	U	10	28
Fluoranthene	12	U	12	37
Fluorene	4.9	U	4.9	28
Indeno[1,2,3-cd]pyrene	11	U	11	28
Naphthalene	11	U	11	93
Phenanthrene	11	U	11	37
Pyrene	11	U	11	37

Surrogate	% Rec .	Acceptance Limits
Terphenyl-d14 (SUR)	93	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60439

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-60439/2-A	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 2248	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1990	1720	87	72 - 115	
Acenaphthylene	1990	1820	92	60 - 115	
Anthracene	1990	1650	83	61 - 115	
Benzo[a]anthracene	1990	1980	100	76 - 115	
Benzo[a]pyrene	1990	1560	79	69 - 115	
Benzo[b]fluoranthene	1990	1940	97	81 - 115	
Benzo[g,h,i]perylene	1990	1860	94	71 - 115	
Benzo[k]fluoranthene	1990	2110	106	85 - 115	
Chrysene	1990	1910	96	70 - 115	
Dibenzo(a,h)anthracene	1990	1940	98	79 - 115	
Fluoranthene	1990	1900	96	67 - 115	
Fluorene	1990	1850	93	72 - 115	
Indeno[1,2,3-cd]pyrene	1990	2210	111	76 - 115	
Naphthalene	1990	1920	97	77 - 115	
Phenanthrene	1990	1900	96	79 - 115	
Pyrene	1990	1910	96	77 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60439

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-14139-1	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404016.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 2349			Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14139-1	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/05/2011 0020			Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	38	49	72 - 115	27	20	N	N *
Acenaphthylene	35	49	60 - 115	35	21	N	N *
Anthracene	40	51	61 - 115	25	20	N	N *
Benzo[a]anthracene	37	44	76 - 115	17	20	N	N
Benzo[a]pyrene	-0.2	-9	69 - 115	23	20	N	N *
Benzo[b]fluoranthene	29	34	81 - 115	15	20	N	N
Benzo[g,h,i]perylene	13	10	71 - 115	30	20	N	N *
Benzo[k]fluoranthene	28	29	85 - 115	4	20	N	N
Chrysene	17	30	70 - 115	34	20	N	N *
Dibenzo(a,h)anthracene	17	20	79 - 115	23	20	N	N *
Fluoranthene	25	27	67 - 115	4	20	N	N
Fluorene	45	56	72 - 115	22	20	N	N *
Indeno[1,2,3-cd]pyrene	24	25	76 - 115	6	20	N	N
Naphthalene	45	60	77 - 115	30	20	N	N *
Phenanthrene	34	42	79 - 115	15	20	N	N
Pyrene	32	45	77 - 115	29	20	N	N *

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Terphenyl-d14 (SUR)	55	*	46	*	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-60434/1-A	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/06/2011 1434	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
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: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-60434/2-A	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/06/2011 1436	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	178.7	89	82 - 116	
Antimony	50.0	47.35	95	82 - 110	
Arsenic	100	92.47	92	85 - 110	
Barium	200	204.4	102	87 - 112	
Beryllium	5.00	4.77	95	84 - 114	
Boron	100	91.73	92	81 - 110	
Cadmium	10.0	10.08	101	87 - 110	
Calcium	5000	4966	99	82 - 114	
Chromium	20.0	19.87	99	84 - 114	
Cobalt	50.0	48.37	97	87 - 110	
Copper	25.0	23.95	96	88 - 110	
Iron	100	96.40	96	87 - 120	
Lead	50.0	46.05	92	86 - 110	
Magnesium	5000	4606	92	90 - 110	
Manganese	50.0	48.78	98	88 - 110	
Molybdenum	100	99.67	100	86 - 110	
Nickel	50.0	48.57	97	87 - 110	
Potassium	5000	5157	103	89 - 110	
Selenium	200	192.2	96	83 - 110	
Silicon	1000	215.2	22	10 - 70	
Silver	5.00	5.04	101	87 - 114	
Sodium	5000	5330	107	90 - 112	
Vanadium	50.0	50.19	100	88 - 110	
Zinc	50.0	45.76	92	76 - 114	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	04/06/2011 1443	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7560		201	10880	1656	50 - 200	4
Antimony	18.6		50.2	61.94	86	20 - 200	
Arsenic	7.3		100	95.53	88	76 - 111	
Barium	523		201	735.8	106	52 - 159	
Beryllium	0.23		5.02	4.72	89	72 - 105	
Boron	9.0		100	93.21	84	75 - 107	
Cadmium	2.2		10.0	12.09	98	40 - 130	
Calcium	35400		5020	39210	75	43 - 165	4
Chromium	85.2		20.1	101.0	79	70 - 200	4
Cobalt	10.2		50.2	54.21	88	72 - 106	
Copper	133		25.1	145.0	48	37 - 187	4
Iron	12600		100	13600	1010	70 - 200	4
Lead	662		50.2	802.3	280	70 - 200	4
Magnesium	7510		5020	11950	88	64 - 145	
Manganese	237		50.2	307.0	140	40 - 200	4
Molybdenum	2.1		100	90.74	88	75 - 103	
Nickel	123		50.2	165.6	85	61 - 126	
Potassium	1740		5020	7275	110	56 - 172	
Selenium	0.78	U	201	185.1	92	76 - 104	
Silicon	1060		1000	1499	44	20 - 200	
Silver	0.89		5.02	5.94	101	75 - 141	
Sodium	659		5020	6103	108	78 - 111	
Vanadium	176		50.2	232.9	114	50 - 169	
Zinc	783		50.2	952.1	337	70 - 200	4

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Duplicate - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.09 g
Analysis Date:	04/06/2011 1445	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7560		6635	13	40	
Antimony	18.6		16.11	14	40	
Arsenic	7.3		9.89	31	30	M
Barium	523		519.7	0.6	30	
Beryllium	0.23		0.230	1	30	
Boron	9.0		8.25	9	30	
Cadmium	2.2		2.48	12	30	
Calcium	35400		31830	11	30	
Chromium	85.2		87.49	3	40	
Cobalt	10.2		11.31	11	30	
Copper	133		188.2	34	30	M
Iron	12600		38760	102	40	M
Lead	662		600.2	10	40	
Magnesium	7510		7185	4	30	
Manganese	237		281.4	17	40	
Molybdenum	2.1		2.59	22	30	
Nickel	123		125.9	3	30	
Potassium	1740		1566	11	40	
Selenium	0.78	U	0.987	NC	30	B
Silicon	1060		1364	25	40	
Silver	0.89		0.956	8	30	
Sodium	659		612.2	7	30	
Vanadium	176		162.0	8	30	
Zinc	783		1085	32	40	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60720

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-60720/1-A	Analysis Batch:	280-61031	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/05/2011 1741	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-60720

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-60720/2-A	Analysis Batch:	280-61031	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/05/2011 1743	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.395	95	87 - 111	

Matrix Spike - Batch: 280-60720

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61031	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/05/2011 1750	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.030	0.448	0.538	113	87 - 111	N

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Duplicate - Batch: 280-60720

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61031	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.61 g
Analysis Date:	04/05/2011 1748	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.030	0.100	108	20	M

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60832

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-60705/1-A	Analysis Batch:	280-60832	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0405NXN.
Dilution:	1.0	Leach Batch:	280-60705	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1234	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/02/2011 1105				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.36	U	0.36	0.75

Method Reporting Limit Check - Batch: 280-60832

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-60832/17	Analysis Batch:	280-60832	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0405NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/05/2011 1223	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0693	69	50 - 150	B

Lab Control Sample - Batch: 280-60832

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-60705/2-A	Analysis Batch:	280-60832	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0405NXN.
Dilution:	1.0	Leach Batch:	280-60705	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1235	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/02/2011 1105				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	48.5	47.90	99	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-60832

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60832	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0405NXN.
Dilution:	1.0	Leach Batch:	280-60705	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1240	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/02/2011 1105				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	4.0	43.0	52.35	113	90 - 110	N

Duplicate - Batch: 280-60832

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60832	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0405NXN.
Dilution:	1.0	Leach Batch:	280-60705	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1238	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/02/2011 1105				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	4.0	4.52	13	10	M

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60988

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-60849/2-A	Analysis Batch:	280-60988	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	178.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0509	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	2.0	U	2.0	5.0
Bromide-Soluble	0.39	U	0.39	2.0
Sulfate-Soluble	1.7	U	1.7	5.0
Fluoride-Soluble	0.82	U	0.82	5.0

Method Reporting Limit Check - Batch: 280-60988

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-60988/3	Analysis Batch:	280-60988	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1040	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.00	0.981	98	50 - 150	B
Bromide-Soluble	0.200	0.182	91	50 - 150	B
Sulfate-Soluble	1.00	0.946	95	50 - 150	B
Fluoride-Soluble	0.200	0.191	96	50 - 150	B

Lab Control Sample - Batch: 280-60988

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-60849/1-A	Analysis Batch:	280-60988	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	177.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0453	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	250	252.7	101	90 - 110	
Bromide-Soluble	50.0	50.12	100	90 - 110	
Sulfate-Soluble	250	250.2	100	90 - 110	
Fluoride-Soluble	50.0	51.34	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-60988

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60988	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	181.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0600	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	2.1	U	269	247.3	92	80 - 120	
Bromide-Soluble	0.42	U	53.7	48.19	90	80 - 120	
Sulfate-Soluble	123		269	358.0	87	80 - 120	
Fluoride-Soluble	0.92	U	53.7	39.10	73	80 - 120	N

Duplicate - Batch: 280-60988

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60988	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	180.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0543	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	2.1	U	2.1	NC	15	U
Bromide-Soluble	0.42	U	0.42	NC	15	U
Sulfate-Soluble	123		124.1	0.5	15	
Fluoride-Soluble	0.92	B	0.914	1	15	B

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60991

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-60849/2-A	Analysis Batch:	280-60991	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	178.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0509	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.31	U	0.31	2.5
Nitrite as N-Soluble	0.34	U	0.34	2.5
Orthophosphate as P-Soluble	1.2	U	1.2	5.0

Method Reporting Limit Check - Batch: 280-60991

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-60991/3	Analysis Batch:	280-60991	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/05/2011 1040	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.198	99	50 - 150	B
Nitrite as N-Soluble	0.200	0.192	96	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.216	108	50 - 150	B

Lab Control Sample - Batch: 280-60991

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-60849/1-A	Analysis Batch:	280-60991	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	177.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0453	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	50.0	50.41	101	90 - 110	
Nitrite as N-Soluble	50.0	50.97	102	90 - 110	
Orthophosphate as P-Soluble	50.0	48.59	97	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-60991

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60991	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	181.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0600	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	7.4		53.7	56.67	92	80 - 120	
Nitrite as N-Soluble	0.36	U	53.7	48.19	90	80 - 120	
Orthophosphate as P-Soluble	1.3	U	53.8	37.94	71	80 - 120	N

Duplicate - Batch: 280-60991

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60991	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	180.TXT
Dilution:	1.0	Leach Batch:	280-60849	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/06/2011 0543	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/05/2011 1600				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	7.4		7.32	1	15	
Nitrite as N-Soluble	0.36	U	0.36	NC	15	U
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Duplicate - Batch: 280-60392

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-14139-1	Analysis Batch:	280-60392	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:	04/01/2011 1400	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	7.0	7.7	9	20	

3-4, 4-2, 2-7

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-211-023	Page 1 of 1

Collector OJEDA, AJ	Company Contact Jen Russell	Telephone No. (509) 540-6502	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 100 IU 2 600-307		SAF No. RC-211		
Ice Chest No. WH-08-042	Field Logbook No. EL-1651	COA 0IU22DY000	Method of Shipment FedEx		
Shipped To JR 3/24/11 TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No. NA		Bill of Lading/Air Bill No. 7969 3631 4598		

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C		
Type of Container	G/P	G/P	G/P	G	aGs*	aG	aG	aG		
No. of Container(s)	1	1	1	1	1	1	1	1		
Volume	60mL	120mL	60mL	60mL	40mL	60mL	60mL	60mL		
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	See item (3) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Semi-VOA - 8270A (TCL)	PAHs - 8310	PCBs - 8082		

Sample No.	Matrix *	Sample Date	Sample Time										
J1H049	SOIL	3-30-11	1340	X	X	X	X	X	X	X	X		

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
AJ Ojeda	3-30-11 @1545	Jen Russell	3/30/11 1415
Jen Russell	3/30/11 1550	A. Freier	1550 3-30-11
A. Freier (WCH)	3-31-11 1045	FED EX	
			4/1/11 830

SPECIAL INSTRUCTIONS

Please leach and hold TCLP metals, per Joan Kessner.

(1) ICP Metals - 6010TR (Client 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}

(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}

(3) IC Anions - 9056 Modified {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate}; NO2/NO3 - 353.2

J01066

REVIEWED BY JEB
DATE 3-31-11

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=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 - 601OTIC - Solid

Analytical Due:

Report Due: 4/18/11 (Rush 1½ TAT)

Sample Check-in List

Date/Time Received: 4/1/11 830 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: J01066 NA[ ] SAF #: RC-211 NA [ ]

Job Number: 14139 Chain of Custody # RC-211-023

Shipping Container ID: WCH-11-019 WCH-08-042 WCH-08-072 Air Bill # 7969363145 98

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ] 7969 3631 4690 7969 3631 4680
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 3-7, 4.2, 2-7 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - Broken
   - Leaking
   - Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added**
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers):

Sample Custodian: [signature] **Date:** 4/1/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager [signature] Date 4/4/11

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

J1151102250225

Ship Date: 31MAR11
ActWgt: 84.0 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

1 of 3

FRI - 01 APR A1
PRIORITY OVERNIGHT

TRK# 7969 3631 4598
0201

MASTER

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 31MAR11
ActWgt: 70.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

Ref #
Invoice #
PO #
Dept #

2 of 3

FRI - 01 APR A1
PRIORITY OVERNIGHT

MPS# 7969 3631 4690
0263
Mstr# 7969 3631 4598 0201

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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

RICHLAND, WA 99354

J11151102250225

Ship Date: 31MAR11
ActWgt: 31.0 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

3 of 3

FRI - 01 APR A1
PRIORITY OVERNIGHT

MPS# 7969 3631 4680
0263

Mstr# 7969 3631 4598 0201

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-14139-1

SDG Number: J01066

Job Description: SAF# RC-211

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

Attention: Joan H Kessner

Approved for release.
Michael T Dedio
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4/26/2011 2 46 PM

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04/26/2011

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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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-14139-1

SDG #: J01066
SAF#: RC-211

Date SDG Closed: April 1, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H049	280-14139-1	6010/7471/1311-6010-7470/ WTPH-G/ 8270A/8310/8082/9056/353.2	6010B/7471A/NWTPH-Dx/ 8270C/8310/8082/9056/353.2/ 1311-6010B-7470A
J1H049	280-14139-2	NWTPH-Dx	NWTPH-Dx

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 sample was received on 4/1/2011; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 3.4, 4.4, and 2.7 C.

Sample J1H049 was logged as two samples one soil (280-14139-1) and one waste (280-14139-2) as the laboratory was unable to extract the NWTPH-Dx as a soil sample.

Sample J1H049, requesting TCLP Metals 1311/6010B/7470A analyses, was leached and placed on hold, as instructed on the chain-of-custody. On 4/19/2011, the client instructed the laboratory to proceed with the requested TCLP Metals 1311/6010B/7470A analyses. Those results are included in this report.

GC/MS SEMIVOLATILES - SW846 8270C
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the presence of interfering, non-target compounds, sample J1H049 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required. The laboratory noted that analysis at a less diluted concentration would jeopardize the integrity of the instrument.

Surrogate recoveries have been "D" flagged in sample J1H049, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

Low levels of Bis(2-ethylhexyl) phthalate are present in the method blank associated with batch 280-60435. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated

sample results present above the MDL and/or RL have been flagged with a "B".

Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in sample J1H049 due to matrix interferences. It can be noted that these compounds were adequately resolved in associated standards, indicating the instrument is achieving separation. The combined peak was reported as Benzo(b)fluoranthene, while Benzo(k)fluoranthene was reported as undetected even though it may be present. Associated results have been "K" flagged.

Spike compound recoveries, RPD data and surrogate recoveries have been "D" flagged in the MS/MSD performed on sample J1H049, as the recoveries obtained are calculated from diluted samples and are not considered reliable. The acceptable LCS analysis data indicated that the analytical system was operating within control.

No other anomalies were encountered.

GC VOLATILES - NWTPH-Gx - GRO

Low levels of Gasoline are present in the method blank associated with batch 280-61929. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

The method required MS/MSD could not be performed for batch 280-61929, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs

Surrogate Decachlorobiphenyl was recovered outside the control limits, biased high, in sample J1H049. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The laboratory noted that sample J1H049 contained more than one Aroclor component. Results should be considered estimated due to shared peaks.

The method required MS/MSD could not be performed for batch 280-61929, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO

The MS/MSD performed on sample J1H049 exhibited the percent recovery outside the control limits for C10-C36, 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.

No other anomalies were encountered.

HPLC - SW846 8310 - PAHs

The RPD between the primary and confirmation columns exceeded 40% for analytes in samples J1H049. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

Surrogate Terphenyl-d14 was recovered outside the control limits, biased low, in sample J1H049. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1H049 exhibited the percent recoveries outside the control limits, and the associated sample result has been flagged "N". RPD data was also outside of control limits. In addition, surrogate Terphenyl-d14 was recovered outside the control limits in the MS/MSD. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-60434 indicates that physical and chemical interferences are present for Cobalt, Lead, Nickel and Zinc. Results have been flagged with an "X".

It can be noted that the sample amount was greater than four times the spike amount for several elements in the Matrix Spike performed on sample J1H049; therefore, control limits are not applicable.

The duplicate analysis of sample J1H049 exhibited RPD data outside the control limits for Arsenic, Copper, Iron 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.

Mercury was recovered outside the control limits in the SW846 7471A Matrix Spike performed on sample J1H049, and the associated sample result have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TCLP METALS - SW846 1311/6010B/7470A

Low levels of Barium and Selenium are present in the method blank associated with batch 280-63093. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE

The Matrix Spike performed on sample J1H049 exhibited percent recoveries outside the control limits, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The duplicate analysis of sample J1H049 exhibited RPD data outside the control limits, 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.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

The Matrix Spike performed on sample J1H049 exhibited percent recoveries outside the control limits for Orthophosphate as P and Fluoride, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
GC VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Analyzed for but not detected.
	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

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Section	Qualifier	Description
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.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	M	Sample duplicate precision not met.
HPLC/IC		
	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.
	*	MS/MSD RPD exceeded the control limit
	*	Surrogate exceeds the control limit

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Gx	
Purge and Trap	TAL DEN		SW846 5030B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
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
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Total Metals	TAL DEN		SW846 3010A
TCLP Mercury	TAL DEN	SW846 7470A	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Mercury	TAL DEN		SW846 7470A
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	
Matrix: Waste			
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Waste Dilution	TAL DEN		SW846 3580A

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: 280-14139-1
Sdg Number: J01066

Method	Analyst	Analyst ID
SW846 8270C	Hoffman, Michael G	MGH
NWTPH NWTPH-Gx	Smith, Matthew P	MPS
SW846 8082	Pavlakovich, Adam M	AMP
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Stoltz, Katie	KS
MCAWW 353.2	Stosak, Lara E	LES
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Berry III, Paul B	PBB
SW846 8310	Hall, Koley J	KJH

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-14139-1	J1H049	Solid	03/30/2011 1340	04/01/2011 0830
280-14139-2	J1H049	Waste	03/30/2011 1340	04/01/2011 0830

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		87	U D	87	2800
Acenaphthylene		140	U D	140	2800
Anthracene		140	U D	140	2800
Benzo[a]anthracene		350	J D	170	2800
Benzo[a]pyrene		170	U D	170	2800
Benzo[b]fluoranthene		680	J D K	220	2800
Benzo[ghi]perylene		190	J D	130	2800
Benzo[k]fluoranthene		340	U D K	340	2800
Bis(2-chloroethoxy)methane		190	U D	190	2800
Bis(2-chloroethyl)ether		140	U D	140	2800
bis (2-chloroisopropyl) ether		190	U D	190	2800
Bis(2-ethylhexyl) phthalate		390	U D	390	2800
4-Bromophenyl phenyl ether		160	U D	160	2800
Butyl benzyl phthalate		360	U D	360	2800
Carbazole		300	U D	300	2800
4-Chloroaniline		690	U D	690	2800
4-Chloro-3-methylphenol		560	U D	560	2800
2-Chloronaphthalene		84	U D	84	2800
2-Chlorophenol		180	U D	180	2800
4-Chlorophenyl phenyl ether		180	U D	180	2800
Chrysene		230	U D	230	2800
Dibenz(a,h)anthracene		160	U D	160	2800
Dibenzofuran		170	U D	170	2800
1,2-Dichlorobenzene		190	U D	190	2800
1,3-Dichlorobenzene		100	U D	100	2800
1,4-Dichlorobenzene		110	U D	110	2800
3,3'-Dichlorobenzidine		760	U D	760	5600
2,4-Dichlorophenol		84	U D	84	2800
Diethyl phthalate		220	U D	220	2800
2,4-Dimethylphenol		560	U D	560	2800
Dimethyl phthalate		190	U D	190	2800
Di-n-butyl phthalate		240	U D	240	2800
4,6-Dinitro-2-methylphenol		2800	U D	2800	5600
2,4-Dinitrophenol		2800	U D	2800	7000
2,4-Dinitrotoluene		560	U D	560	2800
2,6-Dinitrotoluene		240	U D	240	2800
Di-n-octyl phthalate		120	U D	120	2800
Fluoranthene		300	U D	300	2800
Fluorene		150	U D	150	2800
Hexachlorobenzene		240	U D	240	2800
Hexachlorobutadiene		84	U D	84	2800
Hexachlorocyclopentadiene		420	U D	420	2800
Hexachloroethane		180	U D	180	2800
Indeno[1,2,3-cd]pyrene		190	U D	190	2800
Isophorone		140	U D	140	2800
2-Methylnaphthalene		160	U D	160	2800

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		110	U D	110	2800
3 & 4 Methylphenol		280	U D	280	2800
Naphthalene		260	U D	260	2800
2-Nitroaniline		420	U D	420	2800
3-Nitroaniline		620	U D	620	2800
4-Nitroaniline		610	U D	610	2800
Nitrobenzene		190	U D	190	2800
2-Nitrophenol		84	U D	84	2800
4-Nitrophenol		820	U D	820	5600
N-Nitrosodi-n-propylamine		260	U D	260	2800
N-Nitrosodiphenylamine		180	U D	180	2800
Pentachlorophenol		2800	U D	2800	5600
Phenanthrene		140	U D	140	2800
Phenol		150	U D	150	2800
Pyrene		160	J D	100	2800
1,2,4-Trichlorobenzene		240	U D	240	2800
2,4,5-Trichlorophenol		84	U D	84	2800
2,4,6-Trichlorophenol		84	U D	84	2800

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	49	D	50 - 120
2-Fluorophenol	50	D	53 - 120
Nitrobenzene-d5	49	D	50 - 120
Phenol-d5	47	D	52 - 120
Terphenyl-d14	53	D	55 - 120
2,4,6-Tribromophenol	53	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Prep Method:	3550C	Prep Batch:	280-60435	Lab File ID:	D2879.D
Dilution:	8.0			Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 1714			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.43	2400	J N

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Gx	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Prep Method:	5030B	Prep Batch:	280-61929	Initial Weight/Volume:	9.66 g
Dilution:	1.0			Final Weight/Volume:	250 mL
Analysis Date:	04/13/2011 0152			Injection Volume:	5 mL
Prep Date:	04/12/2011 1916			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		410	J B	180	670

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	78		77 - 123

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-60446	Initial Weight/Volume:	32.6 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/04/2011 1855			Injection Volume:	1 uL
Prep Date:	04/01/2011 1933			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		7.5	J	2.6	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	518	*	59 - 130
Tetrachloro-m-xylene	84		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-2
Client Matrix: Waste

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Prep Method:	3580A	Prep Batch:	280-60714	Lab File ID:	007B0701.D
Dilution:	1.0			Initial Weight/Volume:	1.0191 g
Analysis Date:	04/05/2011 2010			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3500000	N	290000	980000
C10-C28		900000	J N	200000	980000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	76		55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-60439	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	04/04/2011 2319			Injection Volume:	20 uL
Prep Date:	04/01/2011 1929			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U N	11	110
Acenaphthylene		9.6	U N	9.6	110
Anthracene		3.2	U N	3.2	21
Benzo[a]anthracene		3.4	U N	3.4	16
Benzo[a]pyrene		870	N X	6.8	16
Benzo[b]fluoranthene		4.5	U N	4.5	16
Benzo[g,h,i]perylene		7.7	U N	7.7	32
Benzo[k]fluoranthene		4.2	U N	4.2	16
Chrysene		350	N X	5.2	43
Dibenzo(a,h)anthracene		12	U N	12	32
Fluoranthene		480	N X	14	43
Fluorene		5.6	U N	5.6	32
Indeno[1,2,3-cd]pyrene		13	U N	13	32
Naphthalene		13	U N	13	110
Phenanthrene		300	N	13	43
Pyrene		150	N	13	43

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	71	*	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61068	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	04/06/2011 1438			Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7560		1.4	4.5
Antimony		18.6		0.34	0.54
Arsenic		7.3	M	0.60	0.90
Barium		523		0.069	0.45
Beryllium		0.23		0.030	0.18
Boron		9.0		0.89	1.8
Cadmium		2.2		0.037	0.18
Calcium		35400		12.7	45.2
Chromium		85.2		0.052	0.18
Cobalt		10.2	X	0.090	0.90
Copper		133	M	0.20	0.90
Iron		12600	M	3.4	4.5
Lead		662	X	0.24	0.45
Magnesium		7510		3.3	18.1
Manganese		237		0.090	0.90
Molybdenum		2.1		0.23	1.8
Nickel		123	X	0.11	3.6
Potassium		1740		37.0	271
Selenium		0.78	U	0.78	0.90
Silicon		1060		5.1	9.0
Silver		0.89		0.14	0.18
Sodium		659		53.3	108
Vanadium		176		0.085	1.8
Zinc		783	X	0.36	0.90

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-63626	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-63093	Lab File ID:	25c042111.asc
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	10 mL
Analysis Date:	04/22/2011 0832			Final Weight/Volume:	50 mL
Prep Date:	04/20/2011 1500				
Leach Date:	04/01/2011 1935				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.029	B	0.022	0.50
Barium		1.6		0.0020	1.0
Cadmium		0.020	B	0.0020	0.10
Chromium		0.015	B	0.0030	0.50
Lead		0.74		0.013	0.50
Selenium		0.037	B C	0.024	0.10
Silver		0.0040	U	0.0040	0.50

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-63586	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-63065	Lab File ID:	110421AA.txt
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	30 mL
Analysis Date:	04/21/2011 1856			Final Weight/Volume:	30 mL
Prep Date:	04/21/2011 0845				
Leach Date:	04/01/2011 1935				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000030	U	0.000030	0.0020

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61031	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-60720	Lab File ID:	110405AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	04/05/2011 1745			Final Weight/Volume:	50 mL
Prep Date:	04/05/2011 1345				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.030	M N	0.0056	0.017

General Chemistry

Client Sample ID: **J1H049**

Lab Sample ID: 280-14139-1
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 03/30/2011 1340
Date Received: 04/01/2011 0830

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	4.0	M N	mg/Kg	0.38	0.81	1.0	353.2
Analysis Batch: 280-60832	Analysis Date: 04/05/2011 1237						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Nitrate as N-Soluble	7.4		mg/Kg	0.34	2.7	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Bromide-Soluble	0.42	U	mg/Kg	0.42	2.1	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	2.7	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U N	mg/Kg	1.3	5.4	1.0	9056M
Analysis Batch: 280-60991	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Sulfate-Soluble	123		mg/Kg	1.9	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y
Fluoride-Soluble	0.92	B N	mg/Kg	0.88	5.4	1.0	9056M
Analysis Batch: 280-60988	Analysis Date: 04/06/2011 0526						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-60392	Analysis Date: 04/01/2011 1400						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-60435					
LCS 280-60435/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-60435/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
280-14139-1MS	Matrix Spike	T	Solid	3550C	
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-60731					
LCS 280-60435/2-A	Lab Control Sample	T	Solid	8270C	280-60435
MB 280-60435/1-A	Method Blank	T	Solid	8270C	280-60435
280-14139-1	J1H049	T	Solid	8270C	280-60435
280-14139-1MS	Matrix Spike	T	Solid	8270C	280-60435
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-60435

Report Basis
T = Total

GC VOA					
Prep Batch: 280-61929					
LCS 280-61929/1-A	Lab Control Sample	T	Solid	5030B	
LCSD 280-61929/2-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 280-61929/3-A	Method Blank	T	Solid	5030B	
280-14139-1	J1H049	T	Solid	5030B	
Analysis Batch:280-62066					
LCS 280-61929/1-A	Lab Control Sample	T	Solid	NWTPH-Gx	280-61929
LCSD 280-61929/2-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Gx	280-61929
MB 280-61929/3-A	Method Blank	T	Solid	NWTPH-Gx	280-61929
280-14139-1	J1H049	T	Solid	NWTPH-Gx	280-61929

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-60446					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-60446/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
Prep Batch: 280-60714					
LCS 280-60714/2-A	Lab Control Sample	T	Waste	3580A	
MB 280-60714/1-A	Method Blank	T	Waste	3580A	
280-14139-2	J1H049	T	Waste	3580A	
280-14139-2MS	Matrix Spike	T	Waste	3580A	
280-14139-2MSD	Matrix Spike Duplicate	T	Waste	3580A	
Analysis Batch:280-60773					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	8082	280-60446
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	8082	280-60446
MB 280-60446/1-A	Method Blank	T	Solid	8082	280-60446
280-14139-1	J1H049	T	Solid	8082	280-60446
Analysis Batch:280-60774					
LCS 280-60446/2-A	Lab Control Sample	T	Solid	8082	280-60446
LCSD 280-60446/3-A	Lab Control Sample Duplicate	T	Solid	8082	280-60446
MB 280-60446/1-A	Method Blank	T	Solid	8082	280-60446
280-14139-1	J1H049	T	Solid	8082	280-60446
Analysis Batch:280-60894					
LCS 280-60714/2-A	Lab Control Sample	T	Waste	NWTPH-Dx	280-60714
MB 280-60714/1-A	Method Blank	T	Waste	NWTPH-Dx	280-60714
280-14139-2	J1H049	T	Waste	NWTPH-Dx	280-60714
280-14139-2MS	Matrix Spike	T	Waste	NWTPH-Dx	280-60714
280-14139-2MSD	Matrix Spike Duplicate	T	Waste	NWTPH-Dx	280-60714

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-60434					
LCS 280-60434/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-60434/1-A	Method Blank	T	Solid	3050B	
280-14139-1	J1H049	T	Solid	3050B	
280-14139-1DU	Duplicate	T	Solid	3050B	
280-14139-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-60468					
LCS 280-60468/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-60468/2-C	Lab Control Sample	P	Solid	1311	
LB2 280-60468/1-B	TCLP SPLPW Leachate Blank	P	Solid	1311	
LB2 280-60468/1-C	TCLP SPLPW Leachate Blank	P	Solid	1311	
280-14139-1	J1H049	P	Solid	1311	
280-14139-1DU	Duplicate	P	Solid	1311	
280-14139-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-60720					
LCS 280-60720/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-60720/1-A	Method Blank	T	Solid	7471A	
280-14139-1	J1H049	T	Solid	7471A	
280-14139-1DU	Duplicate	T	Solid	7471A	
280-14139-1MS	Matrix Spike	T	Solid	7471A	
Analysis Batch:280-61031					
LCS 280-60720/2-A	Lab Control Sample	T	Solid	7471A	280-60720
MB 280-60720/1-A	Method Blank	T	Solid	7471A	280-60720
280-14139-1	J1H049	T	Solid	7471A	280-60720
280-14139-1DU	Duplicate	T	Solid	7471A	280-60720
280-14139-1MS	Matrix Spike	T	Solid	7471A	280-60720
Analysis Batch:280-61068					
LCS 280-60434/2-A	Lab Control Sample	T	Solid	6010B	280-60434
MB 280-60434/1-A	Method Blank	T	Solid	6010B	280-60434
280-14139-1	J1H049	T	Solid	6010B	280-60434
280-14139-1DU	Duplicate	T	Solid	6010B	280-60434
280-14139-1MS	Matrix Spike	T	Solid	6010B	280-60434
Prep Batch: 280-63065					
LCS 280-60468/2-B	Lab Control Sample	P	Solid	7470A	280-60468
LB2 280-60468/1-B	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-60468
280-14139-1	J1H049	P	Solid	7470A	280-60468
280-14139-1DU	Duplicate	P	Solid	7470A	280-60468
280-14139-1MS	Matrix Spike	P	Solid	7470A	280-60468

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-63093					
LCS 280-60468/2-C	Lab Control Sample	P	Solid	3010A	280-60468
LB2 280-60468/1-C	TCLP SPLPW Leachate Blank	P	Solid	3010A	280-60468
280-14139-1	J1H049	P	Solid	3010A	280-60468
280-14139-1DU	Duplicate	P	Solid	3010A	280-60468
280-14139-1MS	Matrix Spike	P	Solid	3010A	280-60468
Analysis Batch:280-63586					
LCS 280-60468/2-B	Lab Control Sample	P	Solid	7470A	280-63065
LB2 280-60468/1-B	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-63065
280-14139-1	J1H049	P	Solid	7470A	280-63065
280-14139-1DU	Duplicate	P	Solid	7470A	280-63065
280-14139-1MS	Matrix Spike	P	Solid	7470A	280-63065
Analysis Batch:280-63626					
LCS 280-60468/2-C	Lab Control Sample	P	Solid	6010B	280-63093
LB2 280-60468/1-C	TCLP SPLPW Leachate Blank	P	Solid	6010B	280-63093
280-14139-1	J1H049	P	Solid	6010B	280-63093
280-14139-1DU	Duplicate	P	Solid	6010B	280-63093
280-14139-1MS	Matrix Spike	P	Solid	6010B	280-63093

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-60392					
280-14139-1	J1H049	T	Solid	D-2216	
280-14139-1DU	Duplicate	T	Solid	D-2216	
Prep Batch: 280-60705					
LCS 280-60705/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-60705/1-A	Method Blank	S	Solid	DI Leach	
280-14139-1	J1H049	S	Solid	DI Leach	
280-14139-1DU	Duplicate	S	Solid	DI Leach	
280-14139-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-60832					
LCS 280-60705/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-60705/1-A	Method Blank	S	Solid	353.2	
280-14139-1	J1H049	S	Solid	353.2	
280-14139-1DU	Duplicate	S	Solid	353.2	
280-14139-1MS	Matrix Spike	S	Solid	353.2	
Prep Batch: 280-60849					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-60849/2-A	Method Blank	S	Solid	DI Leach	
280-14139-1	J1H049	S	Solid	DI Leach	
280-14139-1DU	Duplicate	S	Solid	DI Leach	
280-14139-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-60988					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-60849/2-A	Method Blank	S	Solid	9056M	
280-14139-1	J1H049	S	Solid	9056M	
280-14139-1DU	Duplicate	S	Solid	9056M	
280-14139-1MS	Matrix Spike	S	Solid	9056M	
Analysis Batch:280-60991					
LCS 280-60849/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-60849/2-A	Method Blank	S	Solid	9056M	
280-14139-1	J1H049	S	Solid	9056M	
280-14139-1DU	Duplicate	S	Solid	9056M	
280-14139-1MS	Matrix Spike	S	Solid	9056M	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-60439					
LCS 280-60439/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-60439/1-A	Method Blank	T	Solid	3550C	
280-14139-1	J1H049	T	Solid	3550C	
280-14139-1MS	Matrix Spike	T	Solid	3550C	
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-60648					
LCS 280-60439/2-A	Lab Control Sample	T	Solid	8310	280-60439
MB 280-60439/1-A	Method Blank	T	Solid	8310	280-60439
280-14139-1	J1H049	T	Solid	8310	280-60439
280-14139-1MS	Matrix Spike	T	Solid	8310	280-60439
280-14139-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-60439

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-60435/1-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2878.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	10	U	10	330
Acenaphthylene	17	U	17	330
Anthracene	17	U	17	330
Benzo[a]anthracene	20	U	20	330
Benzo[a]pyrene	20	U	20	330
Benzo[b]fluoranthene	26	U	26	330
Benzo[ghi]perylene	16	U	16	330
Benzo[k]fluoranthene	40	U	40	330
Bis(2-chloroethoxy)methane	23	U	23	330
Bis(2-chloroethyl)ether	16	U	16	330
bis (2-chloroisopropyl) ether	23	U	23	330
Bis(2-ethylhexyl) phthalate	84.6	J	46	330
4-Bromophenyl phenyl ether	19	U	19	330
Butyl benzyl phthalate	43	U	43	330
Carbazole	36	U	36	330
4-Chloroaniline	81	U	81	330
4-Chloro-3-methylphenol	66	U	66	330
2-Chloronaphthalene	9.9	U	9.9	330
2-Chlorophenol	21	U	21	330
4-Chlorophenyl phenyl ether	21	U	21	330
Chrysene	27	U	27	330
Dibenz(a,h)anthracene	19	U	19	330
Dibenzofuran	20	U	20	330
1,2-Dichlorobenzene	22	U	22	330
1,3-Dichlorobenzene	12	U	12	330
1,4-Dichlorobenzene	14	U	14	330
3,3'-Dichlorobenzidine	89	U	89	660
2,4-Dichlorophenol	9.9	U	9.9	330
Diethyl phthalate	26	U	26	330
2,4-Dimethylphenol	66	U	66	330
Dimethyl phthalate	23	U	23	330
Di-n-butyl phthalate	29	U	29	330
4,6-Dinitro-2-methylphenol	330	U	330	660
2,4-Dinitrophenol	330	U	330	820
2,4-Dinitrotoluene	66	U	66	330
2,6-Dinitrotoluene	28	U	28	330
Di-n-octyl phthalate	14	U	14	330
Fluoranthene	36	U	36	330
Fluorene	18	U	18	330
Hexachlorobenzene	29	U	29	330
Hexachlorobutadiene	9.9	U	9.9	330
Hexachlorocyclopentadiene	50	U	50	330
Hexachloroethane	21	U	21	330
Indeno[1,2,3-cd]pyrene	22	U	22	330
Isophorone	17	U	17	330

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-60435/1-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2878.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	19	U	19	330
2-Methylphenol	13	U	13	330
3 & 4 Methylphenol	33	U	33	330
Naphthalene	31	U	31	330
2-Nitroaniline	50	U	50	330
3-Nitroaniline	73	U	73	330
4-Nitroaniline	72	U	72	330
Nitrobenzene	22	U	22	330
2-Nitrophenol	9.9	U	9.9	330
4-Nitrophenol	96	U	96	660
N-Nitrosodi-n-propylamine	31	U	31	330
N-Nitrosodiphenylamine	21	U	21	330
Pentachlorophenol	330	U	330	660
Phenanthrene	17	U	17	330
Phenol	18	U	18	330
Pyrene	12	U	12	330
1,2,4-Trichlorobenzene	28	U	28	330
2,4,5-Trichlorophenol	9.9	U	9.9	330
2,4,6-Trichlorophenol	9.9	U	9.9	330

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	93	50 - 120
2-Fluorophenol	97	53 - 120
Nitrobenzene-d5	88	50 - 120
Phenol-d5	96	52 - 120
Terphenyl-d14	111	55 - 120
2,4,6-Tribromophenol	90	51 - 120

Method Blank TICs- Batch: 280-60435

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	2.21	142	J N
	Unknown	2.26	197	J N
	Unknown	2.37	267	J N
	Unknown	2.44	4170	J N

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60435

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-60435/2-A	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2871.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	04/04/2011 1443	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2580	2060	80	52 - 120	
Anthracene	2580	2240	87	57 - 120	
Carbazole	2580	2250	87	54 - 120	
4-Chloro-3-methylphenol	2580	1860	72	57 - 120	
2-Chlorophenol	2580	2000	78	53 - 120	
1,4-Dichlorobenzene	2580	1810	70	46 - 120	
2,4-Dinitrotoluene	2580	2240	87	53 - 120	
2-Methylnaphthalene	2580	2020	78	55 - 120	
2-Methylphenol	2580	2010	78	51 - 120	
4-Nitrophenol	2580	2060	80	41 - 120	
N-Nitrosodi-n-propylamine	2580	2150	83	51 - 120	
Pentachlorophenol	2580	1730	67	30 - 120	
Phenol	2580	2110	82	54 - 120	
Pyrene	2580	2120	82	50 - 120	
1,2,4-Trichlorobenzene	2580	1800	70	50 - 120	
2,4,6-Trichlorophenol	2580	1960	76	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	85	50 - 120
2-Fluorophenol	84	53 - 120
Nitrobenzene-d5	81	50 - 120
Phenol-d5	86	52 - 120
Terphenyl-d14	89	55 - 120
2,4,6-Tribromophenol	84	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60435

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-14139-1	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2880.D
Dilution:	8.0	Leach Batch:	N/A	Initial Weight/Volume:	31.3 g
Analysis Date:	04/04/2011 1732			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14139-1	Analysis Batch:	280-60731	Instrument ID:	MSS_D
Client Matrix:	Solid	Prep Batch:	280-60435	Lab File ID:	D2881.D
Dilution:	8.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	04/04/2011 1751			Final Weight/Volume:	1000 uL
Prep Date:	04/01/2011 1925			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	33	45	52 - 120	35	30	J D	J D
Anthracene	32	48	57 - 120	42	30	J D	J D
Carbazole	32	47	54 - 120	39	30	J D	J D
4-Chloro-3-methylphenol	24	32	57 - 120	34	30	J D	J D
2-Chlorophenol	32	49	53 - 120	45	30	J D	J D
1,4-Dichlorobenzene	33	43	46 - 120	28	30	J D	J D
2,4-Dinitrotoluene	32	44	53 - 120	35	30	J D	J D
2-Methylnaphthalene	33	45	55 - 120	32	30	J D	J D
2-Methylphenol	31	38	51 - 120	24	30	J D	J D
4-Nitrophenol	0	0	41 - 120	NC	30	U D	U D
N-Nitrosodi-n-propylamine	30	49	51 - 120	50	30	J D	J D
Pentachlorophenol	0	0	30 - 120	NC	30	U D	U D
Phenol	33	45	54 - 120	33	30	J D	J D
Pyrene	34	46	50 - 120	28	38	J D	J D
1,2,4-Trichlorobenzene	28	43	50 - 120	46	30	J D	J D
2,4,6-Trichlorophenol	27	42	50 - 120	48	30	J D	J D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2-Fluorobiphenyl	34	D	49	D	50 - 120
2-Fluorophenol	34	D	48	D	53 - 120
Nitrobenzene-d5	33	D	49	D	50 - 120
Phenol-d5	33	D	48	D	52 - 120
Terphenyl-d14	32	D	47	D	55 - 120
2,4,6-Tribromophenol	43	D	51	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-61929

Method: NWTPH-Gx
Preparation: 5030B

Lab Sample ID:	MB 280-61929/3-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	214F1901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.44 g
Analysis Date:	04/13/2011 0110	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline	258	J	160	570

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene	94	77 - 123

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-61929

Method: NWTPH-Gx
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-61929/1-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	212F1701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.82 g
Analysis Date:	04/12/2011 2345	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-61929/2-A	Analysis Batch:	280-62066	Instrument ID:	GCV_K
Client Matrix:	Solid	Prep Batch:	280-61929	Lab File ID:	213F1801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.91 g
Analysis Date:	04/13/2011 0027	Units:	ug/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/12/2011 1916			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline	100	102	85 - 153	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	108	106	77 - 123

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60446

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-60446/1-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	019F1901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	04/04/2011 1751	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.3
Aroclor 1221	7.5	U	7.5	15
Aroclor 1232	1.9	U	1.9	9.3
Aroclor 1242	4.4	U	4.4	9.3
Aroclor 1248	4.4	U	4.4	9.3
Aroclor 1254	2.4	U	2.4	9.3
Aroclor 1260	2.4	U	2.4	9.3

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	106	59 - 130
Tetrachloro-m-xylene	98	53 - 128

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-60446

Method: 8082
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-60446/2-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	020F2001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.8 g
Analysis Date:	04/04/2011 1812	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY
LCSD Lab Sample ID:	LCSD 280-60446/3-A	Analysis Batch:	280-60773	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-60446	Lab File ID:	021F2101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.4 g
Analysis Date:	04/04/2011 1833	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/01/2011 1933			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aroclor 1016	116	104	54 - 132	7	26		
Aroclor 1260	114	102	62 - 129	7	26		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Decachlorobiphenyl	110	102	59 - 130
Tetrachloro-m-xylene	105	97	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

Lab Sample ID:	MB 280-60714/1-A	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	005B0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/05/2011 1914	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	300000	U	300000	1000000
C10-C28	200000	U	200000	1000000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	82	55 - 125

Lab Control Sample - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

Lab Sample ID:	LCS 280-60714/2-A	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	006B0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/05/2011 1942	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	20000000	23100000	115	57 - 138	
C10-C28	20000000	23100000	115	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	90	55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60714

Method: NWTPH-Dx
Preparation: 3580A

MS Lab Sample ID:	280-14139-2	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	008B0801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0139 g
Analysis Date:	04/05/2011 2038			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14139-2	Analysis Batch:	280-60894	Instrument ID:	GCS_U
Client Matrix:	Waste	Prep Batch:	280-60714	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0030 g
Analysis Date:	04/05/2011 2106			Final Weight/Volume:	10000 uL
Prep Date:	04/05/2011 0927			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	137	138	57 - 134	1	38	N	N
C10-C28	131	130	53 - 115	1	23	N	N

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	89	83	55 - 125

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60439

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-60439/1-A	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	04/04/2011 2217	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.3	U	9.3	93
Acenaphthylene	8.4	U	8.4	93
Anthracene	2.9	U	2.9	19
Benzo[a]anthracene	3.0	U	3.0	14
Benzo[a]pyrene	6.0	U	6.0	14
Benzo[b]fluoranthene	3.9	U	3.9	14
Benzo[g,h,i]perylene	6.7	U	6.7	28
Benzo[k]fluoranthene	3.7	U	3.7	14
Chrysene	4.5	U	4.5	37
Dibenzo(a,h)anthracene	10	U	10	28
Fluoranthene	12	U	12	37
Fluorene	4.9	U	4.9	28
Indeno[1,2,3-cd]pyrene	11	U	11	28
Naphthalene	11	U	11	93
Phenanthrene	11	U	11	37
Pyrene	11	U	11	37

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

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60439

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-60439/2-A	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/04/2011 2248	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1990	1720	87	72 - 115	
Acenaphthylene	1990	1820	92	60 - 115	
Anthracene	1990	1650	83	61 - 115	
Benzo[a]anthracene	1990	1980	100	76 - 115	
Benzo[a]pyrene	1990	1560	79	69 - 115	
Benzo[b]fluoranthene	1990	1940	97	81 - 115	
Benzo[g,h,i]perylene	1990	1860	94	71 - 115	
Benzo[k]fluoranthene	1990	2110	106	85 - 115	
Chrysene	1990	1910	96	70 - 115	
Dibenzo(a,h)anthracene	1990	1940	98	79 - 115	
Fluoranthene	1990	1900	96	67 - 115	
Fluorene	1990	1850	93	72 - 115	
Indeno[1,2,3-cd]pyrene	1990	2210	111	76 - 115	
Naphthalene	1990	1920	97	77 - 115	
Phenanthrene	1990	1900	96	79 - 115	
Pyrene	1990	1910	96	77 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-60439

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-14139-1	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404016.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	04/04/2011 2349			Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14139-1	Analysis Batch:	280-60648	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-60439	Lab File ID:	G0404017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/05/2011 0020			Final Weight/Volume:	4000 uL
Prep Date:	04/01/2011 1929			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	38	49	72 - 115	27	20	N	N *
Acenaphthylene	35	49	60 - 115	35	21	N	N *
Anthracene	40	51	61 - 115	25	20	N	N *
Benzo[a]anthracene	37	44	76 - 115	17	20	N	N
Benzo[a]pyrene	-0.2	-9	69 - 115	23	20	N	N *
Benzo[b]fluoranthene	29	34	81 - 115	15	20	N	N
Benzo[g,h,i]perylene	13	10	71 - 115	30	20	N	N *
Benzo[k]fluoranthene	28	29	85 - 115	4	20	N	N
Chrysene	17	30	70 - 115	34	20	N	N *
Dibenzo(a,h)anthracene	17	20	79 - 115	23	20	N	N *
Fluoranthene	25	27	67 - 115	4	20	N	N
Fluorene	45	56	72 - 115	22	20	N	N *
Indeno[1,2,3-cd]pyrene	24	25	76 - 115	6	20	N	N
Naphthalene	45	60	77 - 115	30	20	N	N *
Phenanthrene	34	42	79 - 115	15	20	N	N
Pyrene	32	45	77 - 115	29	20	N	N *

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Terphenyl-d14 (SUR)	55	*	46	*	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Method Blank - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-60434/1-A	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/06/2011 1434	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
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: 280-14139-1
Sdg Number: J01066

Lab Control Sample - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-60434/2-A	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/06/2011 1436	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	178.7	89	82 - 116	
Antimony	50.0	47.35	95	82 - 110	
Arsenic	100	92.47	92	85 - 110	
Barium	200	204.4	102	87 - 112	
Beryllium	5.00	4.77	95	84 - 114	
Boron	100	91.73	92	81 - 110	
Cadmium	10.0	10.08	101	87 - 110	
Calcium	5000	4966	99	82 - 114	
Chromium	20.0	19.87	99	84 - 114	
Cobalt	50.0	48.37	97	87 - 110	
Copper	25.0	23.95	96	88 - 110	
Iron	100	96.40	96	87 - 120	
Lead	50.0	46.05	92	86 - 110	
Magnesium	5000	4606	92	90 - 110	
Manganese	50.0	48.78	98	88 - 110	
Molybdenum	100	99.67	100	86 - 110	
Nickel	50.0	48.57	97	87 - 110	
Potassium	5000	5157	103	89 - 110	
Selenium	200	192.2	96	83 - 110	
Silicon	1000	215.2	22	10 - 70	
Silver	5.00	5.04	101	87 - 114	
Sodium	5000	5330	107	90 - 112	
Vanadium	50.0	50.19	100	88 - 110	
Zinc	50.0	45.76	92	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	04/06/2011 1443	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7560		201	10880	1656	50 - 200	4
Antimony	18.6		50.2	61.94	86	20 - 200	
Arsenic	7.3		100	95.53	88	76 - 111	
Barium	523		201	735.8	106	52 - 159	
Beryllium	0.23		5.02	4.72	89	72 - 105	
Boron	9.0		100	93.21	84	75 - 107	
Cadmium	2.2		10.0	12.09	98	40 - 130	
Calcium	35400		5020	39210	75	43 - 165	4
Chromium	85.2		20.1	101.0	79	70 - 200	4
Cobalt	10.2		50.2	54.21	88	72 - 106	
Copper	133		25.1	145.0	48	37 - 187	4
Iron	12600		100	13600	1010	70 - 200	4
Lead	662		50.2	802.3	280	70 - 200	4
Magnesium	7510		5020	11950	88	64 - 145	
Manganese	237		50.2	307.0	140	40 - 200	4
Molybdenum	2.1		100	90.74	88	75 - 103	
Nickel	123		50.2	165.6	85	61 - 126	
Potassium	1740		5020	7275	110	56 - 172	
Selenium	0.78	U	201	185.1	92	76 - 104	
Silicon	1060		1000	1499	44	20 - 200	
Silver	0.89		5.02	5.94	101	75 - 141	
Sodium	659		5020	6103	108	78 - 111	
Vanadium	176		50.2	232.9	114	50 - 169	
Zinc	783		50.2	952.1	337	70 - 200	4

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Duplicate - Batch: 280-60434

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14139-1	Analysis Batch:	280-61068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-60434	Lab File ID:	25A1040611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.09 g
Analysis Date:	04/06/2011 1445	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/05/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7560		6635	13	40	
Antimony	18.6		16.11	14	40	
Arsenic	7.3		9.89	31	30	M
Barium	523		519.7	0.6	30	
Beryllium	0.23		0.230	1	30	
Boron	9.0		8.25	9	30	
Cadmium	2.2		2.48	12	30	
Calcium	35400		31830	11	30	
Chromium	85.2		87.49	3	40	
Cobalt	10.2		11.31	11	30	
Copper	133		188.2	34	30	M
Iron	12600		38760	102	40	M
Lead	662		600.2	10	40	
Magnesium	7510		7185	4	30	
Manganese	237		281.4	17	40	
Molybdenum	2.1		2.59	22	30	
Nickel	123		125.9	3	30	
Potassium	1740		1566	11	40	
Selenium	0.78	U	0.987	NC	30	B
Silicon	1060		1364	25	40	
Silver	0.89		0.956	8	30	
Sodium	659		612.2	7	30	
Vanadium	176		162.0	8	30	
Zinc	783		1085	32	40	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

TCLP SPLPW Leachate Blank - Batch: 280-63093

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB2 280-60468/1-C	Analysis Batch:	280-63626	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63093	Lab File ID:	25c042111.asc
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	10 mL
Analysis Date:	04/22/2011 0827	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2011 1500				
Leach Date:	04/01/2011 1935				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.00525	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Lead	0.013	U	0.013	0.50
Selenium	0.0318	B	0.024	0.10
Silver	0.0040	U	0.0040	0.50

Lab Control Sample - Batch: 280-63093

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-60468/2-C	Analysis Batch:	280-63626	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63093	Lab File ID:	25c042111.asc
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	10 mL
Analysis Date:	04/22/2011 0829	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2011 1500				
Leach Date:	04/01/2011 1935				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	4.04	101	80 - 120	
Barium	12.0	12.91	108	80 - 120	
Cadmium	1.10	1.14	104	80 - 120	
Chromium	5.20	5.53	106	80 - 120	
Lead	5.50	5.89	107	80 - 120	
Selenium	3.00	3.05	102	80 - 120	
Silver	1.05	1.10	104	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Matrix Spike - Batch: 280-63093

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14139-1	Analysis Batch:	280-63626	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63093	Lab File ID:	25c042111.asc
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	10 mL
Analysis Date:	04/22/2011 0838	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2011 1500				
Leach Date:	04/01/2011 1935				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.029	B	4.00	4.03	100	80 - 120	
Barium	1.6		12.0	14.03	103	80 - 120	
Cadmium	0.020	B	1.10	1.15	103	80 - 120	
Chromium	0.015	B	5.20	5.31	102	80 - 120	
Lead	0.74		5.50	6.26	100	80 - 120	
Selenium	0.037	B	3.00	3.04	100	80 - 120	
Silver	0.0040	U	1.05	1.08	103	80 - 120	

Duplicate - Batch: 280-63093

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14139-1	Analysis Batch:	280-63626	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63093	Lab File ID:	25c042111.asc
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	10 mL
Analysis Date:	04/22/2011 0836	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2011 1500				
Leach Date:	04/01/2011 1935				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.029	B	0.022	NC	20	U
Barium	1.6		1.66	3	20	
Cadmium	0.020	B	0.0206	0.5	20	B
Chromium	0.015	B	0.0148	2	20	B
Lead	0.74		0.773	4	20	
Selenium	0.037	B	0.0322	15	20	B
Silver	0.0040	U	0.0040	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

TCLP SPLPW Leachate Blank - Batch: 280-63065

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB2 280-60468/1-B	Analysis Batch:	280-63586	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63065	Lab File ID:	110421AA.txt
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	30 mL
Analysis Date:	04/21/2011 1852	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/21/2011 0845				
Leach Date:	04/01/2011 1935				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-63065

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-60468/2-B	Analysis Batch:	280-63586	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63065	Lab File ID:	110421AA.txt
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	30 mL
Analysis Date:	04/21/2011 1854	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/21/2011 0845				
Leach Date:	04/01/2011 1935				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00532	106	90 - 116	

Matrix Spike - Batch: 280-63065

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14139-1	Analysis Batch:	280-63586	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63065	Lab File ID:	110421AA.txt
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	30 mL
Analysis Date:	04/21/2011 1901	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/21/2011 0845				
Leach Date:	04/01/2011 1935				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00519	104	90 - 116	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14139-1
Sdg Number: J01066

Duplicate - Batch: 280-63065

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14139-1	Analysis Batch:	280-63586	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63065	Lab File ID:	110421AA.txt
Dilution:	1.0	Leach Batch:	280-60468	Initial Weight/Volume:	30 mL
Analysis Date:	04/21/2011 1859	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/21/2011 0845				
Leach Date:	04/01/2011 1935				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.000030	U	0.000030	NC	20	U