0100496

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 7/11/11
INITIAL/DATE

COMMENTS:

SDG J01028 SAF-RC-211

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-IU-2 600-313

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-13345-1

SDG Number: J01028

Job Description: SAF# RC-211

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

Attention: Joan H Kessner

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MAR 2011

Approved for release.
Kae E Yoder
Project Manager II
3/25/2011 1:25 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
03/25/2011

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: 280-13345-1

SDG #: J01028
SAF#: RC-211

Date SDG Closed: March 10, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1FHX7	280-13345-1	6010/7471/1311-6010-7470A/9056M/353.2/WTPH-D+/ 8270A/8310/8082	6010B/7471A/9056M/353.2/NWTPH-Dx/ 8270C/8310/8082

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 3/10/2011; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 5.4 C, 4.8 C, 5.2 C and 3.2 C.

Sample J1FHX7, 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
The MS/MSD performed on sample J1FHX7 exhibited percent recoveries outside the control limits for 4-Nitrophenol, and the associated sample result has been flagged "T". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

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

GC SEMIVOLATILES - NWTPH-Dx - DRO
Sample J1FHX7 exhibited elevated detection limits, due to insufficient sample volume submitted by the client. The method specified initial extract volume is 30 grams; however, only 16.2 grams were available for extraction.

The method required MS/MSD could not be performed for batch 280-57414, 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.

HPLC - SW846 8310 - PAHs

The RPD between the primary and confirmation columns exceeded 40% for Acenaphthene and Pyrene in sample J1FHX7. The lower of the two values have been reported, as matrix interference is evident. The results have been flagged with an "X".

The MS/MSD performed on sample J1FHX7 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged "N". In addition, RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The initial calibration is performed using surrogate p-terphenyl-d14. For the samples, method blank, LCS, and MS/MSD presented in this report, the surrogate added was p-terphenyl (non-deuterated). When the surrogate peaks in the samples, method blank, LCS, and MS/MSD were compared to the surrogate peaks in the initial calibration, the retention times did not match due to the difference between the deuterated and the non-deuterated surrogate. Therefore the retention time of the surrogate p-terphenyl in the samples, LCS, and MS/MSD were compared to the retention time of the same surrogate p-terphenyl in the associated method blank instead of the retention time of the deuterated surrogate in the initial calibration.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Low levels of Barium and Silver are present in the method blank associated with batch 280-56942. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum and Iron in the Matrix Spike performed on sample J1FHX7; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1FHX7 exhibited percent recoveries outside the control limits for Manganese, Silicon and Mercury, 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 J1FHX7 exhibited RPD data outside the control limits for Manganese, Molybdenum, Vanadium and Mercury, and the associated sample results have been flagged "M". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE as N

No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

Due to insufficient sample volume submitted by the client, the Matrix Spike and Sample Duplicate analysis for batches 280-57748 and 280-57749 could not be performed. Duplicate LCS (LCSD) were analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	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.
GC Semi VOA		
	U	Analyzed for but not detected.
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.
	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

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Section	Qualifier	Description
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

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
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	

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: 280-13345-1
Sdg Number: J01028

Method	Analyst	Analyst ID
SW846 8270C	Tinkham, Sarah A	SAT
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	Kudla, Ewa	EK
ASTM D-2216	Berry III, Paul B	PBB
SW846 8310	Hall, Koley J	KJH

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-13345-1	J1FHX7	Solid	03/08/2011 1240	03/10/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 280-57815		Instrument ID:	MSS_Y
Preparation:	3550C	Prep Batch: 280-57394		Lab File ID:	Y8940.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Date Analyzed:	03/16/2011 0125			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1630			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	360
Acenaphthylene		18	U	18	360
Anthracene		18	U	18	360
Benzo[a]anthracene		22	U	22	360
Benzo[a]pyrene		22	U	22	360
Benzo[b]fluoranthene		28	U	28	360
Benzo[ghi]perylene		65	J	17	360
Benzo[k]fluoranthene		43	U	43	360
Bis(2-chloroethoxy)methane		25	U	25	360
Bis(2-chloroethyl)ether		18	U	18	360
bis (2-chloroisopropyl) ether		25	U	25	360
Bis(2-ethylhexyl) phthalate		140	J	50	360
4-Bromophenyl phenyl ether		21	U	21	360
Butyl benzyl phthalate		47	U	47	360
Carbazole		39	U	39	360
4-Chloroaniline		89	U	89	360
4-Chloro-3-methylphenol		71	U	71	360
2-Chloronaphthalene		11	U	11	360
2-Chlorophenol		23	U	23	360
4-Chlorophenyl phenyl ether		23	U	23	360
Chrysene		29	U	29	360
Dibenz(a,h)anthracene		84	J	21	360
Dibenzofuran		22	U	22	360
1,2-Dichlorobenzene		24	U	24	360
1,3-Dichlorobenzene		13	U	13	360
1,4-Dichlorobenzene		15	U	15	360
3,3'-Dichlorobenzidine		97	U	97	710
2,4-Dichlorophenol		11	U	11	360
Diethyl phthalate		28	U	28	360
2,4-Dimethylphenol		71	U	71	360
Dimethyl phthalate		25	U	25	360
Di-n-butyl phthalate		31	U	31	360
4,6-Dinitro-2-methylphenol		360	U	360	710
2,4-Dinitrophenol		360	U	360	890
2,4-Dinitrotoluene		71	U	71	360
2,6-Dinitrotoluene		600		30	360
Di-n-octyl phthalate		16	U	16	360
Fluoranthene		69	J	39	360
Fluorene		42	J	19	360
Hexachlorobenzene		31	U	31	360
Hexachlorobutadiene		11	U	11	360
Hexachlorocyclopentadiene		54	U	54	360
Hexachloroethane		23	U	23	360
Indeno[1,2,3-cd]pyrene		24	U	24	360
Isophorone		18	U	18	360
2-Methylnaphthalene		24	J	21	360

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 280-57815		Instrument ID:	MSS_Y
Preparation:	3550C	Prep Batch: 280-57394		Lab File ID:	Y8940.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Date Analyzed:	03/16/2011 0125			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1630			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		14	U	14	360
3 & 4 Methylphenol		36	U	36	360
Naphthalene		34	U	34	360
2-Nitroaniline		54	U	54	360
3-Nitroaniline		880		79	360
4-Nitroaniline		79	U	79	360
Nitrobenzene		24	U	24	360
2-Nitrophenol		11	U	11	360
4-Nitrophenol		110	U T	110	710
N-Nitrosodi-n-propylamine		34	U	34	360
N-Nitrosodiphenylamine		23	U	23	360
Pentachlorophenol		360	U	360	710
Phenanthrene		84	J	18	360
Phenol		19	U	19	360
Pyrene		68	J	13	360
1,2,4-Trichlorobenzene		30	U	30	360
2,4,5-Trichlorophenol		11	U	11	360
2,4,6-Trichlorophenol		11	U	11	360

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		50 - 120
2-Fluorophenol	85		53 - 120
Nitrobenzene-d5	84		50 - 120
Phenol-d5	88		52 - 120
Terphenyl-d14	91		55 - 120
2,4,6-Tribromophenol	88		51 - 120

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 280-57815		Instrument ID:	MSS_Y
Preparation:	3550C	Prep Batch: 280-57394		Lab File ID:	Y8940.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Date Analyzed:	03/16/2011 0125			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1630			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.82	1000	N J
	Unknown	3.27	2000	N J
65-85-0	Benzoic acid	5.61	730	J N J
112-05-0	Nonanoic acid	6.21	780	N J
	Unknown	6.44	560	N J
334-48-5	Decanoic acid	6.78	1100	N J
	Unknown	7.04	520	N J
271-89-6	Benzofuran	7.38	530	N J
629-62-9	Pentadecane	7.50	320	N J
502-69-2	2-Pentadecanone, 6,10,14-trimethyl-	8.86	810	N J
	Unknown	9.26	540	N J
	Unknown	9.46	7700	N J
	Unknown	9.53	1200	N J
	Unknown	9.58	2700	N J
	Unknown	9.66	1500	N J
	Unknown	9.74	850	N J
	Unknown	10.65	1700	N J
	Unknown	12.89	6200	N J
	Unknown	13.09	4000	N J
	Unknown	13.25	3000	N J

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-58677		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-57316		Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	03/18/2011 1740			Injection Volume:	1 uL
Date Prepared:	03/14/2011 1800			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		3.0	U	3.0	11
Aroclor 1221		8.7	U	8.7	18
Aroclor 1232		2.2	U	2.2	11
Aroclor 1242		5.1	U	5.1	11
Aroclor 1248		5.1	U	5.1	11
Aroclor 1254		2.8	U	2.8	11
Aroclor 1260		2.8	U	2.8	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	68		59 - 130
Tetrachloro-m-xylene	95		53 - 128

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

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

Method:	NWTPH-Dx	Analysis Batch: 280-58248		Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-57414		Lab File ID:	063B1601.D
Dilution:	1.0			Initial Weight/Volume:	16.2 g
Date Analyzed:	03/16/2011 1757			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1900			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		120000		2000	8100
C10-C28		83000		1400	8100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	85		49 - 115

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-58054		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-57396		Initial Weight/Volume:	30.0 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/18/2011 2258			Injection Volume:	20 uL
Date Prepared:	03/14/2011 1655			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		110	N X	11	110
Acenaphthylene		9.8	U	9.8	110
Anthracene		3.3	U N	3.3	22
Benzo[a]anthracene		3.5	U N	3.5	16
Benzo[a]pyrene		7.0	U N	7.0	16
Benzo[b]fluoranthene		4.6	U N	4.6	16
Benzo[g,h,i]perylene		7.9	U N	7.9	33
Benzo[k]fluoranthene		4.3	U N	4.3	16
Chrysene		5.3	U N	5.3	44
Dibenzo(a,h)anthracene		12	U N	12	33
Fluoranthene		14	U N	14	44
Fluorene		5.8	U N	5.8	33
Indeno[1,2,3-cd]pyrene		13	U N	13	33
Naphthalene		13	U	13	110
Phenanthrene		13	U N	13	44
Pyrene		130	N X	13	44

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

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57454		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56942		Lab File ID:	25A3031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	03/14/2011 2015			Final Weight/Volume:	100 mL
Date Prepared:	03/11/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		3670		1.7	5.5
Antimony		0.42	U	0.42	0.66
Arsenic		2.5		0.72	1.1
Barium		149		0.083	0.55
Beryllium		0.096	B	0.036	0.22
Boron		9.7		1.1	2.2
Cadmium		0.12	B	0.045	0.22
Calcium		3670		15.4	54.7
Chromium		4.4		0.063	0.22
Cobalt		3.5		0.11	1.1
Copper		9.2		0.24	1.1
Iron		10200		4.2	5.5
Lead		5.0		0.30	0.55
Magnesium		1910	M	4.0	21.9
Manganese		150	N	0.11	1.1
Molybdenum		0.50	B M	0.28	2.2
Nickel		4.8		0.13	4.4
Potassium		767		44.9	328
Selenium		0.94	U	0.94	1.1
Silicon		90.0	N	6.2	10.9
Silver		0.22	C	0.18	0.22
Sodium		138		64.5	131
Vanadium		25.9	M	0.10	2.2
Zinc		26.8		0.44	1.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-57335		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56945		Lab File ID:	110311AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	03/11/2011 2058			Final Weight/Volume:	50 mL
Date Prepared:	03/11/2011 1145				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.019	M N	0.0060	0.018

General Chemistry

Client Sample ID: **J1FHX7**

Lab Sample ID: 280-13345-1
Client Matrix: Solid
% Moisture: 8.6

Date Sampled: 03/08/2011 1240
Date Received: 03/10/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.4		mg/Kg	0.39	0.82	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1853						DryWt Corrected: Y
Chloride-Soluble	2.2	U	mg/Kg	2.2	5.5	1.0	9056M
Analysis Batch: 280-57748	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Nitrate as N-Soluble	1.7	B	mg/Kg	0.34	2.7	1.0	9056M
Analysis Batch: 280-57749	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Bromide-Soluble	0.42	U	mg/Kg	0.42	2.2	1.0	9056M
Analysis Batch: 280-57748	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	2.7	1.0	9056M
Analysis Batch: 280-57749	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Orthophosphate as P-Soluble	5.4	B	mg/Kg	1.4	5.5	1.0	9056M
Analysis Batch: 280-57749	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Sulfate-Soluble	65.8		mg/Kg	1.9	5.5	1.0	9056M
Analysis Batch: 280-57748	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y
Fluoride-Soluble	2.1	B	mg/Kg	0.90	5.5	1.0	9056M
Analysis Batch: 280-57748	Date Analyzed: 03/16/2011 0204						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56998	Date Analyzed: 03/11/2011 1047						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-57394					
LCS 280-57394/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-57394/1-A	Method Blank	T	Solid	3550C	
280-13345-1	J1FHX7	T	Solid	3550C	
280-13345-1MS	Matrix Spike	T	Solid	3550C	
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-57815					
LCS 280-57394/2-A	Lab Control Sample	T	Solid	8270C	280-57394
MB 280-57394/1-A	Method Blank	T	Solid	8270C	280-57394
280-13345-1	J1FHX7	T	Solid	8270C	280-57394
280-13345-1MS	Matrix Spike	T	Solid	8270C	280-57394
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-57394

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-57316					
LCS 280-57316/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-57316/1-A	Method Blank	T	Solid	3550C	
280-13345-1	J1FHX7	T	Solid	3550C	
280-13345-1MS	Matrix Spike	T	Solid	3550C	
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-57414					
LCS 280-57414/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-57414/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-57414/1-A	Method Blank	T	Solid	3550C	
280-13345-1	J1FHX7	T	Solid	3550C	
Analysis Batch:280-58248					
LCS 280-57414/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-57414
LCSD 280-57414/3-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Dx	280-57414
MB 280-57414/1-A	Method Blank	T	Solid	NWTPH-Dx	280-57414
280-13345-1	J1FHX7	T	Solid	NWTPH-Dx	280-57414
Analysis Batch:280-58677					
LCS 280-57316/2-A	Lab Control Sample	T	Solid	8082	280-57316
280-13345-1	J1FHX7	T	Solid	8082	280-57316
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	8082	280-57316
Analysis Batch:280-58678					
MB 280-57316/1-A	Method Blank	T	Solid	8082	280-57316
280-13345-1MS	Matrix Spike	T	Solid	8082	280-57316

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-56942					
LCS 280-56942/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-56942/1-A	Method Blank	T	Solid	3050B	
280-13345-1	J1FHX7	T	Solid	3050B	
280-13345-1DU	Duplicate	T	Solid	3050B	
280-13345-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-56945					
LCS 280-56945/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-56945/1-A	Method Blank	T	Solid	7471A	
280-13345-1	J1FHX7	T	Solid	7471A	
280-13345-1DU	Duplicate	T	Solid	7471A	
280-13345-1MS	Matrix Spike	T	Solid	7471A	
Analysis Batch:280-57335					
LCS 280-56945/2-A	Lab Control Sample	T	Solid	7471A	280-56945
MB 280-56945/1-A	Method Blank	T	Solid	7471A	280-56945
280-13345-1	J1FHX7	T	Solid	7471A	280-56945
280-13345-1DU	Duplicate	T	Solid	7471A	280-56945
280-13345-1MS	Matrix Spike	T	Solid	7471A	280-56945
Analysis Batch:280-57454					
LCS 280-56942/2-A	Lab Control Sample	T	Solid	6010B	280-56942
MB 280-56942/1-A	Method Blank	T	Solid	6010B	280-56942
280-13345-1	J1FHX7	T	Solid	6010B	280-56942
280-13345-1DU	Duplicate	T	Solid	6010B	280-56942
280-13345-1MS	Matrix Spike	T	Solid	6010B	280-56942

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-56998					
280-13345-1	J1FHX7	T	Solid	D-2216	
280-13345-1DU	Duplicate	T	Solid	D-2216	
Prep Batch: 280-57106					
LCS 280-57106/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-57106/1-A	Method Blank	S	Solid	DI Leach	
280-13345-1	J1FHX7	S	Solid	DI Leach	
280-13345-1DU	Duplicate	S	Solid	DI Leach	
280-13345-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-57151					
LCS 280-57106/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-57106/1-A	Method Blank	S	Solid	353.2	
280-13345-1	J1FHX7	S	Solid	353.2	
280-13345-1DU	Duplicate	S	Solid	353.2	
280-13345-1MS	Matrix Spike	S	Solid	353.2	
Analysis Batch:280-57748					
LCS 280-57890/2-A	Lab Control Sample	S	Solid	9056M	
LCSD 280-57890/3-A	Lab Control Sample Duplicate	S	Solid	9056M	
MB 280-57890/1-A	Method Blank	S	Solid	9056M	
280-13345-1	J1FHX7	S	Solid	9056M	
Analysis Batch:280-57749					
LCS 280-57890/2-A	Lab Control Sample	S	Solid	9056M	
LCSD 280-57890/3-A	Lab Control Sample Duplicate	S	Solid	9056M	
MB 280-57890/1-A	Method Blank	S	Solid	9056M	
280-13345-1	J1FHX7	S	Solid	9056M	
Prep Batch: 280-57890					
LCS 280-57890/2-A	Lab Control Sample	S	Solid	DI Leach	
LCSD 280-57890/3-A	Lab Control Sample Duplicate	S	Solid	DI Leach	
MB 280-57890/1-A	Method Blank	S	Solid	DI Leach	
280-13345-1	J1FHX7	S	Solid	DI Leach	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-57396					
LCS 280-57396/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-57396/1-A	Method Blank	T	Solid	3550C	
280-13345-1	J1FHX7	T	Solid	3550C	
280-13345-1MS	Matrix Spike	T	Solid	3550C	
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-58054					
LCS 280-57396/2-A	Lab Control Sample	T	Solid	8310	280-57396
MB 280-57396/1-A	Method Blank	T	Solid	8310	280-57396
280-13345-1	J1FHX7	T	Solid	8310	280-57396
280-13345-1MS	Matrix Spike	T	Solid	8310	280-57396
280-13345-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-57396

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57394

Method: 8270C
Preparation: 3550C

Lab Sample ID: MB 280-57394/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/15/2011 1743
Date Prepared: 03/14/2011 1630

Analysis Batch: 280-57815
Prep Batch: 280-57394
Units: ug/Kg

Instrument ID: MSS_Y
Lab File ID: Y8917.D
Initial Weight/Volume: 30.3 g
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

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	46	U	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	65	U	65	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	13	U	13	330
3,3'-Dichlorobenzidine	89	U	89	650
2,4-Dichlorophenol	9.9	U	9.9	330
Diethyl phthalate	26	U	26	330
2,4-Dimethylphenol	65	U	65	330
Dimethyl phthalate	23	U	23	330
Di-n-butyl phthalate	29	U	29	330
4,6-Dinitro-2-methylphenol	330	U	330	650
2,4-Dinitrophenol	330	U	330	820
2,4-Dinitrotoluene	65	U	65	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

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57394

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-57394/1-A	Analysis Batch:	280-57815	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-57394	Lab File ID:	Y8917.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.3 g
Date Analyzed:	03/15/2011 1743			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1630			Injection Volume:	0.5 uL

Analyte	Result	Qual	MDL	RL
Indeno[1,2,3-cd]pyrene	22	U	22	330
Isophorone	17	U	17	330
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	72	U	72	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	650
N-Nitrosodi-n-propylamine	31	U	31	330
N-Nitrosodiphenylamine	21	U	21	330
Pentachlorophenol	330	U	330	650
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	80	50 - 120
2-Fluorophenol	80	53 - 120
Nitrobenzene-d5	78	50 - 120
Phenol-d5	84	52 - 120
Terphenyl-d14	100	55 - 120
2,4,6-Tribromophenol	84	51 - 120

Method Blank TICs- Batch: 280-57394

Cas Number	Analyte	RT	Est. Result	Qual
75-09-2	Methylene Chloride	1.83	643	N J
	Unknown	3.27	2080	N J

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Control Sample - Batch: 280-57394

Method: 8270C
Preparation: 3550C

Lab Sample ID: LCS 280-57394/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/15/2011 1804
Date Prepared: 03/14/2011 1630

Analysis Batch: 280-57815
Prep Batch: 280-57394
Units: ug/Kg

Instrument ID: MSS_Y
Lab File ID: Y8918.D
Initial Weight/Volume: 32.0 g
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2500	2240	89	52 - 120	
Anthracene	2500	2400	96	57 - 120	
Carbazole	2500	2380	95	54 - 120	
4-Chloro-3-methylphenol	2500	2310	93	57 - 120	
2-Chlorophenol	2500	2160	86	53 - 120	
1,4-Dichlorobenzene	2500	1910	76	46 - 120	
2,4-Dinitrotoluene	2500	2490	100	53 - 120	
2-Methylnaphthalene	2500	2150	86	55 - 120	
2-Methylphenol	2500	2200	88	51 - 120	
4-Nitrophenol	2500	2360	95	41 - 120	
N-Nitrosodi-n-propylamine	2500	2140	86	51 - 120	
Pentachlorophenol	2500	2450	98	30 - 120	
Phenol	2500	2230	89	54 - 120	
Pyrene	2500	2370	95	50 - 120	
1,2,4-Trichlorobenzene	2500	1870	75	50 - 120	
2,4,6-Trichlorophenol	2500	2440	98	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	88	50 - 120
2-Fluorophenol	87	53 - 120
Nitrobenzene-d5	86	50 - 120
Phenol-d5	91	52 - 120
Terphenyl-d14	96	55 - 120
2,4,6-Tribromophenol	89	51 - 120

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-57394

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-13345-1	Analysis Batch: 280-57815	Instrument ID:	MSS_Y	
Client Matrix:	Solid	Prep Batch: 280-57394	Lab File ID:	Y8941.D	
Dilution:	1.0		Initial Weight/Volume:	30.1	g
Date Analyzed:	03/16/2011 0145		Final Weight/Volume:	1000	uL
Date Prepared:	03/14/2011 1630		Injection Volume:	0.5	uL

MSD Lab Sample ID:	280-13345-1	Analysis Batch: 280-57815	Instrument ID:	MSS_Y	
Client Matrix:	Solid	Prep Batch: 280-57394	Lab File ID:	Y8942.D	
Dilution:	1.0		Initial Weight/Volume:	30.2	g
Date Analyzed:	03/16/2011 0205		Final Weight/Volume:	1000	uL
Date Prepared:	03/14/2011 1630		Injection Volume:	0.5	uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	82	71	52 - 120	15	30		
Anthracene	89	75	57 - 120	18	30		
Carbazole	85	73	54 - 120	15	30		
4-Chloro-3-methylphenol	92	81	57 - 120	14	30		
2-Chlorophenol	83	74	53 - 120	12	30		
1,4-Dichlorobenzene	71	60	46 - 120	17	30		
2,4-Dinitrotoluene	93	80	53 - 120	16	30		
2-Methylnaphthalene	82	72	55 - 120	13	30		
2-Methylphenol	90	77	51 - 120	16	30		
4-Nitrophenol	24	20	41 - 120	18	30	J T	J T
N-Nitrosodi-n-propylamine	86	75	51 - 120	14	30		
Pentachlorophenol	108	91	30 - 120	17	30		
Phenol	88	77	54 - 120	14	30		
Pyrene	89	77	50 - 120	15	38		
1,2,4-Trichlorobenzene	73	61	50 - 120	18	30		
2,4,6-Trichlorophenol	95	81	50 - 120	16	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	83	70	50 - 120
2-Fluorophenol	84	73	53 - 120
Nitrobenzene-d5	84	72	50 - 120
Phenol-d5	90	78	52 - 120
Terphenyl-d14	94	80	55 - 120
2,4,6-Tribromophenol	89	75	51 - 120

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57316

Method: 8082
Preparation: 3550C

Lab Sample ID: MB 280-57316/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/21/2011 1221
Date Prepared: 03/14/2011 1800

Analysis Batch: 280-58678
Prep Batch: 280-57316
Units: ug/Kg

Instrument ID: GCS_P3
Lab File ID: 004B0401.D
Initial Weight/Volume: 30.1 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.8	U	2.8	10
Aroclor 1221	8.0	U	8.0	16
Aroclor 1232	2.0	U	2.0	10
Aroclor 1242	4.6	U	4.6	10
Aroclor 1248	4.6	U	4.6	10
Aroclor 1254	2.6	U	2.6	10
Aroclor 1260	2.6	U	2.6	10

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	90	59 - 130
Tetrachloro-m-xylene	110	53 - 128

Lab Control Sample - Batch: 280-57316

Method: 8082
Preparation: 3550C

Lab Sample ID: LCS 280-57316/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/18/2011 1719
Date Prepared: 03/14/2011 1800

Analysis Batch: 280-58677
Prep Batch: 280-57316
Units: ug/Kg

Instrument ID: GCS_P3
Lab File ID: 087B8701.D
Initial Weight/Volume: 30.1 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.2	32.2	97	54 - 132	
Aroclor 1260	33.2	27.7	83	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	69	59 - 130
Tetrachloro-m-xylene	110	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-57316

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-13345-1	Analysis Batch: 280-58678	Instrument ID: GCS_P3
Client Matrix:	Solid	Prep Batch: 280-57316	Lab File ID: 005B0501.D
Dilution:	1.0		Initial Weight/Volume: 30.0 g
Date Analyzed:	03/21/2011 1242		Final Weight/Volume: 5000 uL
Date Prepared:	03/14/2011 1800		Injection Volume: 1 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-13345-1	Analysis Batch: 280-58677	Instrument ID: GCS_P3
Client Matrix:	Solid	Prep Batch: 280-57316	Lab File ID: 090B9001.D
Dilution:	1.0		Initial Weight/Volume: 30.1 g
Date Analyzed:	03/18/2011 1823		Final Weight/Volume: 5000 uL
Date Prepared:	03/14/2011 1800		Injection Volume: 1 uL
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	85	87	54 - 132	2	26		
Aroclor 1260	73	74	62 - 129	1	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	62	63	59 - 130
Tetrachloro-m-xylene	86	97	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57414

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-57414/1-A	Analysis Batch:	280-58248	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-57414	Lab File ID:	060B1301.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.8 g
Date Analyzed:	03/16/2011 1615			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1900			Injection Volume:	1 uL

Analyte	Result	Qual	MDL	RL
C10-C36	970	U	970	3900
C10-C28	660	U	660	3900

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

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-57414

Method: NWTPH-Dx
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-57414/2-A	Analysis Batch:	280-58248	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-57414	Lab File ID:	061B1401.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.5 g
Date Analyzed:	03/16/2011 1649			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1900			Injection Volume:	1 uL

LCSD Lab Sample ID:	LCSD 280-57414/3-A	Analysis Batch:	280-58248	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-57414	Lab File ID:	062B1501.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	32.4 g
Date Analyzed:	03/16/2011 1723			Final Weight/Volume:	1000 uL
Date Prepared:	03/14/2011 1900			Injection Volume:	1 uL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
C10-C36	91	89	57 - 115	8	23		
C10-C28	91	89	53 - 115	8	23		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
o-Terphenyl	79	81	49 - 115

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57396

Method: 8310
Preparation: 3550C

Lab Sample ID: MB 280-57396/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/18/2011 2157
Date Prepared: 03/14/2011 1655

Analysis Batch: 280-58054
Prep Batch: 280-57396
Units: ug/Kg

Instrument ID: CHHPLC_G
Lab File ID: G0317076.D
Initial Weight/Volume: 30.8 g
Final Weight/Volume: 4000 uL
Injection Volume: 20 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.7	U	9.7	97
Acenaphthylene	8.8	U	8.8	97
Anthracene	3.0	U	3.0	19
Benzo[a]anthracene	3.1	U	3.1	15
Benzo[a]pyrene	6.2	U	6.2	15
Benzo[b]fluoranthene	4.1	U	4.1	15
Benzo[g,h,i]perylene	7.0	U	7.0	29
Benzo[k]fluoranthene	3.8	U	3.8	15
Chrysene	4.7	U	4.7	39
Dibenzo(a,h)anthracene	11	U	11	29
Fluoranthene	13	U	13	39
Fluorene	5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene	12	U	12	29
Naphthalene	12	U	12	97
Phenanthrene	12	U	12	39
Pyrene	12	U	12	39

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	110	72 - 115

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Control Sample - Batch: 280-57396

Method: 8310
Preparation: 3550C

Lab Sample ID: LCS 280-57396/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/18/2011 2228
Date Prepared: 03/14/2011 1655

Analysis Batch: 280-58054
Prep Batch: 280-57396
Units: ug/Kg

Instrument ID: CHHPLC_G
Lab File ID: G0317077.D
Initial Weight/Volume: 31.7 g
Final Weight/Volume: 4000 uL
Injection Volume: 20 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1890	1760	93	72 - 115	
Acenaphthylene	1890	1670	88	60 - 115	
Anthracene	1890	1600	84	61 - 115	
Benzo[a]anthracene	1890	2060	109	76 - 115	
Benzo[a]pyrene	1890	1670	88	69 - 115	
Benzo[b]fluoranthene	1890	1960	103	81 - 115	
Benzo[g,h,i]perylene	1890	1910	101	71 - 115	
Benzo[k]fluoranthene	1890	1970	104	85 - 115	
Chrysene	1890	1930	102	70 - 115	
Dibenzo(a,h)anthracene	1890	1980	105	79 - 115	
Fluoranthene	1890	1870	99	67 - 115	
Fluorene	1890	1720	91	72 - 115	
Indeno[1,2,3-cd]pyrene	1890	2110	111	76 - 115	
Naphthalene	1890	1740	92	77 - 115	
Phenanthrene	1890	1780	94	79 - 115	
Pyrene	1890	1890	100	77 - 115	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	112	72 - 115

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-57396

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-13345-1	Analysis Batch: 280-58054	Instrument ID: CHHPLC_G
Client Matrix:	Solid	Prep Batch: 280-57396	Lab File ID: G0317079.D
Dilution:	1.0		Initial Weight/Volume: 30.8 g
Date Analyzed:	03/18/2011 2329		Final Weight/Volume: 4000 uL
Date Prepared:	03/14/2011 1655		Injection Volume: 20 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-13345-1	Analysis Batch: 280-58054	Instrument ID: CHHPLC_G
Client Matrix:	Solid	Prep Batch: 280-57396	Lab File ID: G0317080.D
Dilution:	1.0		Initial Weight/Volume: 30.1 g
Date Analyzed:	03/19/2011 0000		Final Weight/Volume: 4000 uL
Date Prepared:	03/14/2011 1655		Injection Volume: 20 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	71	84	72 - 115	18	20	N	
Acenaphthylene	93	98	60 - 115	7	21		
Anthracene	189	83	61 - 115	77	20	N	*
Benzo[a]anthracene	71	89	76 - 115	24	20	N	*
Benzo[a]pyrene	56	65	69 - 115	18	20	N	N
Benzo[b]fluoranthene	74	75	81 - 115	4	20	N	N
Benzo[g,h,i]perylene	49	47	71 - 115	1	20	N	N
Benzo[k]fluoranthene	69	83	85 - 115	20	20	N	N
Chrysene	88	120	70 - 115	34	20		N *
Dibenzo(a,h)anthracene	72	79	79 - 115	11	20	N	
Fluoranthene	309	120	67 - 115	86	20	N	N *
Fluorene	217	96	72 - 115	75	20	N	*
Indeno[1,2,3-cd]pyrene	66	61	76 - 115	5	20	N	N
Naphthalene	80	93	77 - 115	18	20		
Phenanthrene	209	94	79 - 115	74	20	N	*
Pyrene	84	106	77 - 115	24	20		*

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	90	106	72 - 115

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-56942

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-56942/1-A	Analysis Batch:	280-57454	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-56942	Lab File ID:	25A3031411.asc
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1 g
Date Analyzed:	03/14/2011 2011			Final Weight/Volume:	100 mL
Date Prepared:	03/11/2011 1500				

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	0.0870	B	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	0.165	B	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: 280-13345-1
Sdg Number: J01028

Lab Control Sample - Batch: 280-56942

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 280-56942/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 2013
Date Prepared: 03/11/2011 1500

Analysis Batch: 280-57454
Prep Batch: 280-56942
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A3031411.asc
Initial Weight/Volume: 1 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	183.6	92	82 - 116	
Antimony	50.0	49.70	99	82 - 110	
Arsenic	100	90.65	91	85 - 110	
Barium	200	191.4	96	87 - 112	
Beryllium	5.00	4.80	96	84 - 114	
Boron	100	93.35	93	81 - 110	
Cadmium	10.0	10.19	102	87 - 110	
Calcium	5000	4866	97	82 - 114	
Chromium	20.0	20.18	101	84 - 114	
Cobalt	50.0	48.78	98	87 - 110	
Copper	25.0	23.66	95	88 - 110	
Iron	100	92.89	93	87 - 120	
Lead	50.0	45.29	91	86 - 110	
Magnesium	5000	4930	99	90 - 110	
Manganese	50.0	51.94	104	88 - 110	
Molybdenum	100	105.6	106	86 - 110	
Nickel	50.0	48.80	98	87 - 110	
Potassium	5000	5220	104	89 - 110	
Selenium	200	198.3	99	83 - 110	
Silicon	1000	112.7	11	10 - 70	
Silver	5.00	5.52	110	87 - 114	
Sodium	5000	5329	107	90 - 112	
Vanadium	50.0	52.32	105	88 - 110	
Zinc	50.0	48.48	97	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Matrix Spike - Batch: 280-56942

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13345-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 2022
Date Prepared: 03/11/2011 1500

Analysis Batch: 280-57454
Prep Batch: 280-56942
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A3031411.asc
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	3670		214	7572	1820	50 - 200	4
Antimony	0.42	U	53.6	30.29	56	20 - 200	
Arsenic	2.5		107	93.58	85	76 - 111	
Barium	149		214	402.0	118	52 - 159	
Beryllium	0.096	B	5.36	4.74	87	72 - 105	
Boron	9.7		107	101.3	85	75 - 107	
Cadmium	0.12	B	10.7	10.29	95	40 - 130	
Calcium	3670		5360	10520	128	43 - 165	
Chromium	4.4		21.4	26.74	104	70 - 200	
Cobalt	3.5		53.6	52.89	92	72 - 106	
Copper	9.2		26.8	35.29	97	37 - 187	
Iron	10200		107	15780	5193	70 - 200	4
Lead	5.0		53.6	50.29	85	70 - 200	
Magnesium	1910		5360	8040	114	64 - 145	
Manganese	150		53.6	301.2	282	40 - 200	N
Molybdenum	0.50	B	107	101.1	94	75 - 103	
Nickel	4.8		53.6	54.14	92	61 - 126	
Potassium	767		5360	6292	103	56 - 172	
Selenium	0.94	U	214	206.3	96	76 - 104	
Silicon	90.0		1070	199.4	10	20 - 200	N
Silver	0.22		5.36	5.43	97	75 - 141	
Sodium	138		5360	5627	102	78 - 111	
Vanadium	25.9		53.6	94.11	127	50 - 169	
Zinc	26.8		53.6	79.85	99	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Duplicate - Batch: 280-56942

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13345-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 2019
Date Prepared: 03/11/2011 1500

Analysis Batch: 280-57454
Prep Batch: 280-56942
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A3031411.asc
Initial Weight/Volume: 1.01 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	3670		2621	33	40	
Antimony	0.42	U	0.41	NC	40	U
Arsenic	2.5		1.85	30	30	
Barium	149		124.0	18	30	
Beryllium	0.096	B	0.0942	2	30	B
Boron	9.7		10.24	6	30	
Cadmium	0.12	B	0.128	10	30	B
Calcium	3670		3382	8	30	
Chromium	4.4		3.45	25	40	
Cobalt	3.5		2.63	27	30	
Copper	9.2		7.05	27	30	
Iron	10200		6827	40	40	
Lead	5.0		3.60	32	40	
Magnesium	1910		1266	40	30	M
Manganese	150		106.7	34	40	
Molybdenum	0.50	B	0.363	31	30	B M
Nickel	4.8		3.99	19	30	B
Potassium	767		528.4	37	40	
Selenium	0.94	U	0.93	NC	30	U
Silicon	90.0		71.66	23	40	
Silver	0.22		0.184	16	30	B
Sodium	138		104.5	27	30	B
Vanadium	25.9		17.58	38	30	M
Zinc	26.8		19.44	32	40	

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-56945

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-56945/1-A	Analysis Batch:	280-57335	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-56945	Lab File ID:	110311AA.txt
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	0.60 g
Date Analyzed:	03/11/2011 2049			Final Weight/Volume:	50 mL
Date Prepared:	03/11/2011 1145				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-56945

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-56945/2-A	Analysis Batch:	280-57335	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-56945	Lab File ID:	110311AA.txt
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	0.60 g
Date Analyzed:	03/11/2011 2055			Final Weight/Volume:	50 mL
Date Prepared:	03/11/2011 1145				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.452	109	87 - 111	

Matrix Spike - Batch: 280-56945

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-13345-1	Analysis Batch:	280-57335	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-56945	Lab File ID:	110311AA.txt
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	0.61 g
Date Analyzed:	03/11/2011 2102			Final Weight/Volume:	50 mL
Date Prepared:	03/11/2011 1145				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.019	0.448	0.367	78	87 - 111	N

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Duplicate - Batch: 280-56945

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-13345-1	Analysis Batch:	280-57335	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-56945	Lab File ID:	110311AA.txt
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	0.69 g
Date Analyzed:	03/11/2011 2100			Final Weight/Volume:	50 mL
Date Prepared:	03/11/2011 1145				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.019	0.0149	26	20	B M

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-57106/1-A	Analysis Batch:	280-57151	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0311NXN.RST
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/11/2011 1850			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/11/2011 1240	Leachate Batch:	280-57106		

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.35	U	0.35	0.74

Method Reporting Limit Check - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-57151/17	Analysis Batch:	280-57151	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0311NXN.RST
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	100 mL
Date Analyzed:	03/11/2011 1115			Final Weight/Volume:	100 mL
Date Prepared:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0844	84	50 - 150	B

Lab Control Sample - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-57106/2-A	Analysis Batch:	280-57151	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0311NXN.RST
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/11/2011 1852			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/11/2011 1240	Leachate Batch:	280-57106		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	49.0	49.57	101	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Matrix Spike - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: 280-13345-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1856
Date Prepared: N/A
Date Leached: 03/11/2011 1240

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-57106

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	1.4	43.8	45.01	100	90 - 110	

Duplicate - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: 280-13345-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1855
Date Prepared: N/A
Date Leached: 03/11/2011 1240

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-57106

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	1.4	1.48	8	10	

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57748

Method: 9056M
Preparation: N/A

Lab Sample ID: MB 280-57890/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/16/2011 0147
Date Prepared: N/A
Date Leached: 03/15/2011 1428

Analysis Batch: 280-57748
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-57890

Instrument ID: WC_IC8
Lab File ID: 168.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

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: 280-57748

Method: 9056M
Preparation: N/A

Lab Sample ID: MRL 280-57748/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/15/2011 1005
Date Prepared: N/A

Analysis Batch: 280-57748
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC8
Lab File ID: 112.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.00	0.960	96	50 - 150	B
Bromide-Soluble	0.200	0.189	94	50 - 150	B
Sulfate-Soluble	1.00	0.980	98	50 - 150	B
Fluoride-Soluble	0.200	0.190	95	50 - 150	B

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-57748

Method: 9056M
Preparation: N/A

LCS Lab Sample ID:	LCS 280-57890/2-A	Analysis Batch:	280-57748	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	166.TXT
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/16/2011 0114			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/15/2011 1428	Leachate Batch:	280-57890		

LCSD Lab Sample ID:	LCSD 280-57890/3-A	Analysis Batch:	280-57748	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	167.TXT
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/16/2011 0131			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/15/2011 1428	Leachate Batch:	280-57890		

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloride-Soluble	98	98	90 - 110	0	10		
Bromide-Soluble	99	98	90 - 110	1	10		
Sulfate-Soluble	99	98	90 - 110	2	10		
Fluoride-Soluble	102	102	90 - 110	0	10		

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Method Blank - Batch: 280-57749

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-57890/1-A	Analysis Batch:	280-57749	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	.TXT
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/16/2011 0147			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/15/2011 1428	Leachate Batch:	280-57890		

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: 280-57749

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-57749/3	Analysis Batch:	280-57749	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/15/2011 1005			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.190	95	50 - 150	B
Nitrite as N-Soluble	0.200	0.191	96	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.218	109	50 - 150	B

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-57749

Method: 9056M
Preparation: N/A

LCS Lab Sample ID:	LCS 280-57890/2-A	Analysis Batch:	280-57749	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	166.TXT
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/16/2011 0114			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/15/2011 1428	Leachate Batch:	280-57890		

LCSD Lab Sample ID:	LCSD 280-57890/3-A	Analysis Batch:	280-57749	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	167.TXT
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/16/2011 0131			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/15/2011 1428	Leachate Batch:	280-57890		

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate as N-Soluble	100	99	90 - 110	1	10		
Nitrite as N-Soluble	99	99	90 - 110	0	10		
Orthophosphate as P-Soluble	96	94	90 - 110	1	10		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13345-1
Sdg Number: J01028

Duplicate - Batch: 280-56998

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-13345-1	Analysis Batch:	280-56998	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	%	Initial Weight/Volume:	
Date Analyzed:	03/11/2011 1047			Final Weight/Volume:	
Date Prepared:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	8.6	9.3	7	20	

~~3.9~~, 5.4, ~~3.6, 3.7~~, 4.8, 5.2, 3.2
AMY SAMII 3/14/11 MIG

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-211-002	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 2 600-313		SAF No. RC-211
Ice Chest No. ERC-96-030	Field Logbook No. EL-1651	COA 0IU22DY000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, ~~Richland~~ Denver JEB 3-9-4	Offsite Property No. NA		Bill of Lading/Air Bill No. 7945 1421 9809

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			
Type of Container	G/P	G/P	G/P	G	aG	aG	aG			
No. of Container(s)	1	1	1	1	1	1	1			
Volume	60mL	120mL	60mL	60mL	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 +	Semi-VOA - 8270A (TCL)	PAHs - 8310	PCBs - 8082			
Sample No.	Matrix *	Sample Date	Sample Time								
J1FHX7	SOIL	3-8-11	1240	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	1300 3-8-11	Jen Russell Jen Russell	3/8/11 1300
Jen Russell Jen Russell	3-8-11 1555	A. Freier A. Freier	3-8-11 1555
WCH A. Freier A. Freier	3-9-11 1420	Fed Ex	
		3/10/11 0930	

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

SDG# J61028

REVIEWED BY JEB DATE 3-9-11

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

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

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 - 6HOTE - S.1.2

Analytical Due:

Report Due: 3/25/11 (Rush, 11 day TAT)

Sample Check-in List

4,6K

Date/Time Received: 3/10/11 930 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: J01028 NA[ ] SAF #: RC-211 NA [ ]

Job Number: 13345 Chain of Custody # RC-211-002

Shipping Container ID: GWS-239 ERC-03-103 ERC-96-030 ERC-99-032 Air Bill # 7968 4930 0783 7945 1421 9809 7968 4930 0934 7945 1421 9772

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 5.4, 4.8, 5.2, 3.2 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:
   - 1 Tape
   - 1 Custody Seals
   - 1 Hazard Lables
   - 1 Appropriate Sample Lables
9. Samples are:
   - 1 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: 3/10/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ____ by ____ Person Contacted ____

[ ] No action necessary; process as is.

Project Manager [signature] Date 3/11/11

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

RICHLAND, WA 99354

FedEx. Express

J11101012220225

Ship Date: 09MAR11
ActWgt: 85.0 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 2

THU - 10 MAR A1
PRIORITY OVERNIGHT

TRK# 7968 4930 0783
0201

MASTER

XH WHHA

80002
CO-U8
DEN

50DG2/BDD9/7EF8

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2. Fold the printed page along the horizontal line.
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From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

FedEx. Express

J11101012220225

Ship Date: 09MAR11
ActWgt: 72.0 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

2 of 2

THU - 10 MAR A1
PRIORITY OVERNIGHT

MPS# 7968 4930 0934
0263
Mstr# 7968 4930 0783 0201

XH WHHA

80002
CO-US
DEN

50DG2/6DD9/7EFB

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RICHLAND, WA 99354

FedEx. Express

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CAD: 8897843/INET3130

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Ref #
Invoice #
PO #
Dept #

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Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

1 of 2

THU - 10 MAR A1
PRIORITY OVERNIGHT

TRK# 7945 1421 9809
0201

MASTER

XH WHHA

80002
CO-US
DEN

50DG2/BDD9/7EFB

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Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

2 of 2

THU - 10 MAR A1
PRIORITY OVERNIGHT

MPS# 7945 1421 9772
0263
Mstr# 7945 1421 9809 0201

XH WHHA

80002
CO-US
DEN

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