

SAF-RC-110
100-H Burial Grounds Remaining Sites –
Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21

KW 5/5/15
INITIAL/DATE

COMMENTS:

SDG JP0943 SAF-RC-110

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site: 100-H-59:2 (excavation)

ANALYTICAL REPORT

Job Number: 280-68111-1

SDG Number: JP0943

Job Description: SAF# RC-110

For:

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner



Approved for release.
Kae E Yoder
Senior Project Manager
4/28/2015 1:15 PM

Kae E Yoder, Senior Project Manager
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04/28/2015

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, 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 4025.

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

Job Number: 280-68111-1

SDG #: JP0943

SAF#: RC-110

Date SDG Closed: April 21, 2015

Data Deliverable: 7 Day / Summary

<u>CLIENT ID</u>	<u>LAB ID</u>	<u>ANALYSES REQUESTED</u>	<u>ANALYSES PERFORMED</u>
J1V666	280-68111-1	WTPH-D+/8082	NWTPH-Dx/8082
J1V667	280-68111-2	WTPH-D+/8082	NWTPH-Dx/8082
J1V668	280-68111-3	WTPH-D+/8082	NWTPH-Dx/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 samples were received on 4/21/2015 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

The samples presented in this report contained rocks that were not included in the aliquots used for extraction and/or analysis.

GC SEMIVOLATILES - SW846 8082 - PCBs

The laboratory noted that a Sulfuric Acid clean-up was performed on the samples presented in this report to reduce matrix interferences.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, samples J1V667 and J1V668 had to be analyzed at dilutions, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilutions required.

Sample J1V667 contained a combination of Aroclor 1254 and Aroclor 1260 with insufficient separation to quantify individually. The sample has been quantified and reported as the predominant Aroclor. Due to the shared peaks of these two Aroclors, there is increased qualitative and quantitative uncertainty associated with these results.

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO

Low levels of C10-C28 are present in the method blank associated with batch 280-273793. Because the concentration in the method blank is not present at a level greater than half the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Lab Section	Qualifier	Description
GC Semi VOA	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	The reported value is from a dilution.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-68111-1	J1V666	Solid	04/16/2015 1050	04/21/2015 0940
280-68111-2	J1V667	Solid	04/16/2015 1056	04/21/2015 0940
280-68111-3	J1V668	Solid	04/16/2015 1045	04/21/2015 0940

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
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
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Method	Analyst	Analyst ID
SW846 8082	Jackson, Todd D	TDJ
NWTPH NWTPH-Dx	Moore, Tegan E	TEM
ASTM D-2216	Shaheen, Scott W	SWS

SAMPLE RESULTS

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Client Sample ID: J1V666

Lab Sample ID: 280-68111-1

Date Sampled: 04/16/2015 1050

Client Matrix: Solid

% Moisture: 3.4

Date Received: 04/21/2015 0940

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-274672	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-273767	Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	04/28/2015 0919			Injection Volume:	1 uL
Prep Date:	04/21/2015 1557			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	88		59 - 130
Tetrachloro-m-xylene	80		53 - 128

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Client Sample ID: J1V667

Lab Sample ID: 280-68111-2

Date Sampled: 04/16/2015 1056

Client Matrix: Solid

% Moisture: 5.2

Date Received: 04/21/2015 0940

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-274672	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-273767	Initial Weight/Volume:	30.4 g
Dilution:	4.0			Final Weight/Volume:	5 mL
Analysis Date:	04/27/2015 1249			Injection Volume:	1 uL
Prep Date:	04/21/2015 1557			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		12	U D	12	42
Aroclor 1221		33	U D	33	69
Aroclor 1232		8.3	U D	8.3	42
Aroclor 1242		19	U D	19	42
Aroclor 1248		19	U D	19	42
Aroclor 1254		190	D	11	42
Aroclor 1260		11	U D	11	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	98	D	59 - 130
Tetrachloro-m-xylene	79	D	53 - 128

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Client Sample ID: J1V668

Lab Sample ID: 280-68111-3

Date Sampled: 04/16/2015 1045

Client Matrix: Solid

% Moisture: 9.0

Date Received: 04/21/2015 0940

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-274672	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-273767	Initial Weight/Volume:	30.5 g
Dilution:	20			Final Weight/Volume:	5 mL
Analysis Date:	04/27/2015 1312			Injection Volume:	1 uL
Prep Date:	04/21/2015 1557			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		60	U D	60	220
Aroclor 1221		170	U D	170	360
Aroclor 1232		43	U D	43	220
Aroclor 1242		100	U D	100	220
Aroclor 1248		100	U D	100	220
Aroclor 1254		56	U D	56	220
Aroclor 1260		900	D	56	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	74	D	59 - 130
Tetrachloro-m-xylene	95	D	53 - 128

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Client Sample ID: J1V666

Lab Sample ID: 280-68111-1

Date Sampled: 04/16/2015 1050

Client Matrix: Solid

% Moisture: 3.4

Date Received: 04/21/2015 0940

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-273846	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-273793	Lab File ID:	04220007.D
Dilution:	1.0			Initial Weight/Volume:	30.5 g
Analysis Date:	04/22/2015 1247			Final Weight/Volume:	1 mL
Prep Date:	04/21/2015 2130			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		2500	J	1000	4100
C10-C28		2500	J B	690	4100
Surrogate		%Rec	Qualifier	Acceptance Limits	
o-Terphenyl		86		49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

Client Sample ID: J1V667

Lab Sample ID: 280-68111-2
Client Matrix: Solid

% Moisture: 5.2

Date Sampled: 04/16/2015 1056
Date Received: 04/21/2015 0940

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-273846	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-273793	Lab File ID:	008B0801.D
Dilution:	1.0			Initial Weight/Volume:	30.8 g
Analysis Date:	04/22/2015 1412			Final Weight/Volume:	1 mL
Prep Date:	04/21/2015 2130			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		28000		1000	4100
C10-C28		16000	B	700	4100
Surrogate		%Rec	Qualifier	Acceptance Limits	
o-Terphenyl		91		49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Client Sample ID: J1V668

Lab Sample ID: 280-68111-3

Date Sampled: 04/16/2015 1045

Client Matrix: Solid

% Moisture: 9.0

Date Received: 04/21/2015 0940

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-273846	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-273793	Lab File ID:	04220011.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Analysis Date:	04/22/2015 1605			Final Weight/Volume:	1 mL
Prep Date:	04/21/2015 2130			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		130000		1100	4400
C10-C28		79000	B	740	4400
Surrogate		%Rec	Qualifier	Acceptance Limits	
o-Terphenyl		87		49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

General Chemistry

Client Sample ID: J1V666

Lab Sample ID: 280-68111-1

Date Sampled: 04/16/2015 1050

Client Matrix: Solid

Date Received: 04/21/2015 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.4		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-274247		Analysis Date: 04/23/2015 1849				DryWt Corrected: N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

General Chemistry

Client Sample ID: J1V667

Lab Sample ID: 280-68111-2

Date Sampled: 04/16/2015 1056

Client Matrix: Solid

Date Received: 04/21/2015 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.2		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-274247		Analysis Date: 04/23/2015 1849				DryWt Corrected: N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

General Chemistry

Client Sample ID: J1V668

Lab Sample ID: 280-68111-3

Date Sampled: 04/16/2015 1045

Client Matrix: Solid

Date Received: 04/21/2015 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.0		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-274247		Analysis Date: 04/23/2015 1849				DryWt Corrected: N

QUALITY CONTROL RESULTS

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-68111-1	J1V666	88	80
280-68111-2	J1V667	98D	79D
280-68111-3	J1V668	74D	95D
MB 280-273767/1-A		83	74
LCS 280-273767/2-A		92	82
280-68111-1 MS	J1V666 MS	87	80
280-68111-1 MSD	J1V666 MSD	82	75

Surrogate	Acceptance Limits
DCB = Decachlorobiphenyl	59-130
TCX = Tetrachloro-m-xylene	53-128

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Surrogate Recovery Report

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

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH %Rec
280-68111-1	J1V666	86
280-68111-2	J1V667	91
280-68111-3	J1V668	87
MB 280-273793/1-A		87
LCS 280-273793/2-A		87
280-68111-2 MS	J1V667 MS	91
280-68111-2 MSD	J1V667 MSD	90

Surrogate

Acceptance Limits

OTPH = o-Terphenyl

49-115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

Method Blank - Batch: 280-273767

**Method: 8082
Preparation: 3550C**

Lab Sample ID: MB 280-273767/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/24/2015 1140
 Prep Date: 04/21/2015 1557
 Leach Date: N/A

Analysis Batch: 280-274365
 Prep Batch: 280-273767
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: SGC_W
 Lab File ID: 04241504.D
 Initial Weight/Volume: 31.8 g
 Final Weight/Volume: 5 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.4
Aroclor 1221	7.6	U	7.6	16
Aroclor 1232	1.9	U	1.9	9.4
Aroclor 1242	4.4	U	4.4	9.4
Aroclor 1248	4.4	U	4.4	9.4
Aroclor 1254	2.5	U	2.5	9.4
Aroclor 1260	2.5	U	2.5	9.4

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	83	59 - 130
Tetrachloro-m-xylene	74	53 - 128

Lab Control Sample - Batch: 280-273767

**Method: 8082
Preparation: 3550C**

Lab Sample ID: LCS 280-273767/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/24/2015 1203
 Prep Date: 04/21/2015 1557
 Leach Date: N/A

Analysis Batch: 280-274365
 Prep Batch: 280-273767
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: SGC_W
 Lab File ID: 04241505.D
 Initial Weight/Volume: 30.4 g
 Final Weight/Volume: 5 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	32.9	28.8	87	54 - 132	
Aroclor 1260	32.9	32.1	98	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	92	59 - 130
Tetrachloro-m-xylene	82	53 - 128

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-273767**

**Method: 8082
Preparation: 3550C**

MS Lab Sample ID: 280-68111-1	Analysis Batch: 280-274365	Instrument ID: SGC_W
Client Matrix: Solid	Prep Batch: 280-273767	Lab File ID: 04241507.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 30.2 g
Analysis Date: 04/24/2015 1249		Final Weight/Volume: 5 mL
Prep Date: 04/21/2015 1557		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 280-68111-1	Analysis Batch: 280-274365	Instrument ID: SGC_W
Client Matrix: Solid	Prep Batch: 280-273767	Lab File ID: 04241508.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 30.4 g
Analysis Date: 04/24/2015 1312		Final Weight/Volume: 5 mL
Prep Date: 04/21/2015 1557		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	88	85	54 - 132	3	26		
Aroclor 1260	94	91	62 - 129	5	26		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
Decachlorobiphenyl		87	82			59 - 130	
Tetrachloro-m-xylene		80	75			53 - 128	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-273767**

**Method: 8082
Preparation: 3550C**

MS Lab Sample ID: 280-68111-1	Units: ug/Kg	MSD Lab Sample ID: 280-68111-1
Client Matrix: Solid		Client Matrix: Solid
Dilution: 1.0		Dilution: 1.0
Analysis Date: 04/24/2015 1249		Analysis Date: 04/24/2015 1312
Prep Date: 04/21/2015 1557		Prep Date: 04/21/2015 1557
Leach Date: N/A		Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Aroclor 1016	2.9 U	34.3	34.1	30.1	29.1
Aroclor 1260	2.7 U	34.3	34.1	32.3	30.8

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

Method Blank - Batch: 280-273793

**Method: NWTPH-Dx
Preparation: 3550C**

Lab Sample ID: MB 280-273793/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 04/22/2015 1150
Prep Date: 04/21/2015 2130
Leach Date: N/A

Analysis Batch: 280-273846
Prep Batch: 280-273793
Leach Batch: N/A
Units: ug/Kg

Instrument ID: SGC_U
Lab File ID: 04220005.D
Initial Weight/Volume: 30.5 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
C10-C36	980	U	980	3900
C10-C28	1330	J	670	3900

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	87	49 - 115

Lab Control Sample - Batch: 280-273793

**Method: NWTPH-Dx
Preparation: 3550C**

Lab Sample ID: LCS 280-273793/2-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 04/22/2015 1218
Prep Date: 04/21/2015 2130
Leach Date: N/A

Analysis Batch: 280-273846
Prep Batch: 280-273793
Leach Batch: N/A
Units: ug/Kg

Instrument ID: SGC_U
Lab File ID: 04220006.D
Initial Weight/Volume: 31.8 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	62900	54100	86	57 - 115	
C10-C28	62900	52600	84	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	87	49 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-273793**

**Method: NWTPH-Dx
Preparation: 3550C**

MS Lab Sample ID:	280-68111-2	Analysis Batch:	280-273846	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-273793	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/22/2015 1440			Final Weight/Volume:	1 mL
Prep Date:	04/21/2015 2130			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68111-2	Analysis Batch:	280-273846	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-273793	Lab File ID:	010B1101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	04/22/2015 1537			Final Weight/Volume:	1 mL
Prep Date:	04/21/2015 2130			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
C10-C36	88	97	57 - 115	6	23		
C10-C28	84	91	56 - 115	6	23		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
o-Terphenyl	91		90	49 - 115			

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-273793**

**Method: NWTPH-Dx
Preparation: 3550C**

MS Lab Sample ID:	280-68111-2	Units:	ug/Kg	MSD Lab Sample ID:	280-68111-2
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/22/2015 1440			Analysis Date:	04/22/2015 1537
Prep Date:	04/21/2015 2130			Prep Date:	04/21/2015 2130
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
C10-C36	28000	69600	68700	88900	94400
C10-C28	16000	69600	68700	74500	78700

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1
Sdg Number: JP0943

Duplicate - Batch: 280-274247

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-68111-3	Analysis Batch:	280-274247	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/23/2015 1849	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	9.0	8.5	5	20	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 280-273767					
LCS 280-273767/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-273767/1-A	Method Blank	T	Solid	3550C	
280-68111-1	J1V666	T	Solid	3550C	
280-68111-1MS	Matrix Spike	T	Solid	3550C	
280-68111-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68111-2	J1V667	T	Solid	3550C	
280-68111-3	J1V668	T	Solid	3550C	
Prep Batch: 280-273793					
LCS 280-273793/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-273793/1-A	Method Blank	T	Solid	3550C	
280-68111-1	J1V666	T	Solid	3550C	
280-68111-2	J1V667	T	Solid	3550C	
280-68111-2MS	Matrix Spike	T	Solid	3550C	
280-68111-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68111-3	J1V668	T	Solid	3550C	
Analysis Batch:280-273846					
LCS 280-273793/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-273793
MB 280-273793/1-A	Method Blank	T	Solid	NWTPH-Dx	280-273793
280-68111-1	J1V666	T	Solid	NWTPH-Dx	280-273793
280-68111-2	J1V667	T	Solid	NWTPH-Dx	280-273793
280-68111-2MS	Matrix Spike	T	Solid	NWTPH-Dx	280-273793
280-68111-2MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-273793
280-68111-3	J1V668	T	Solid	NWTPH-Dx	280-273793
Analysis Batch:280-274365					
LCS 280-273767/2-A	Lab Control Sample	T	Solid	8082	280-273767
MB 280-273767/1-A	Method Blank	T	Solid	8082	280-273767
280-68111-1MS	Matrix Spike	T	Solid	8082	280-273767
280-68111-1MSD	Matrix Spike Duplicate	T	Solid	8082	280-273767
Analysis Batch:280-274672					
280-68111-1	J1V666	T	Solid	8082	280-273767
280-68111-2	J1V667	T	Solid	8082	280-273767
280-68111-3	J1V668	T	Solid	8082	280-273767

Report Basis

T = Total

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-68111-1

Sdg Number: JP0943

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-274247					
280-68111-1	J1V666	T	Solid	D-2216	
280-68111-2	J1V667	T	Solid	D-2216	
280-68111-3	J1V668	T	Solid	D-2216	
280-68111-3DU	Duplicate	T	Solid	D-2216	

Report Basis

T = Total

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-110-129	Page 1 of 1
Collector STOWE, QG	Company Contact Joan Kessner	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 8B	Data Turnaround 7 days
Project Designation 100-H Field Remediation	Sampling Location 100-H-59.2 (excavation)	COA 01H5922600	SAF No. RC-110	Method of Shipment Fed Ex	
Ice Chest No. RCC-07-004	Field Logbook No. EL-1627-09	Offsite Property No. A131402	Bill of Lading/Air Bill No. See OSCP		
Shipped To TestAmerica Denver		Other Labs Shipped To			

Sample No.	Matrix	Sample Date	Sample Time	Preservation	Cool 4C	Cool 4C	Type of Container	No. of Container(s)	Volume	Sample Analysis
J1V665	SOIL	4/16/15	1050	aG	125mL	125mL	aG	1	125mL	TPH-Diesel Range - WTPH-D + PCBs - 8082
J1V666	SOIL	4/16/15	1050	aG	125mL	125mL	aG	1	125mL	
J1V667	SOIL	4/16/15	1056	aG	125mL	125mL	aG	1	125mL	
J1V668	SOIL	4/16/15	1045	aG	125mL	125mL	aG	1	125mL	
J1V669	SOIL	4/16/15	1045	aG	125mL	125mL	aG	1	125mL	



CHAIN OF POSSESSION		Sign/Print Names		Date/Time	
Relinquished By/Removed From	Joan Kessner	Received By/Stored In	Joan Kessner	4-16-15	1106
Relinquished By/Removed From	Christine Kessner	Received By/Stored In	Christine Kessner	4-16-15	1515
Relinquished By/Removed From	Christine Kessner	Received By/Stored In	Christine Kessner	4-16-15	1520
Relinquished By/Removed From	Christine Kessner	Received By/Stored In	Christine Kessner	4-20-15	0745
Relinquished By/Removed From	Christine Kessner	Received By/Stored In	Christine Kessner	4-20-15	0750
Relinquished By/Removed From	Christine Kessner	Received By/Stored In	Christine Kessner	4-21-15	9:40

SPECIAL INSTRUCTIONS

1.0 IR5 to 2
Transferred by #12114



JP0943

FINAL SAMPLE DISPOSITION

WCH-EE-011

1.0
IRS + 0.2
Transferred by
MAY 4/21/15

Sample Check-in List

Date/Time Received: 4/21/15 9:40 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: JPO943 NA [] SAF #: RC-110 NA []

Job Number: 68111 Chain of Custody # RC-110-129

Shipping Container ID: RCC-07-002 Air Bill # 773407663001

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: 1.0 IRS + 0.2 NA []
5. Vermiculite/packing materials is NA [] Wet [] Dry
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA [] Yes [] No D.B. 4-22-15
8. Samples have:
 - Tape
 - Custody Seals
 - Hazard Labels
 - Appropriate Sample Labels
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 HNO₃ Added _____
11. Sample Location, Sample Collector Listed? * Yes
*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: 4/21/15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager Darlene Bandy Date 4-22-15

From: (509) 378-7492
1182 Shipping
US DOE c/o MSA
2355 Stevens Dr
Richland, WA 99354

Origin ID: PSCA



Ship Date: 20APR15
ActWgt: 74.0 LB
CAD: 105266502ANET3610

Delivery Address Bar Code



SHIP TO: (303) 736-0190
Kae Yoder
TestAmerica
4955 Yarrow St.
A131402
ARVADA, CO 80002

BILL THIRD PARTY

Ref # R3110032800
Invoice #
PG #
Dept #

1 of 2

TUE - 21 APR 10:30A
PRIORITY OVERNIGHT

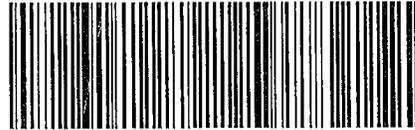
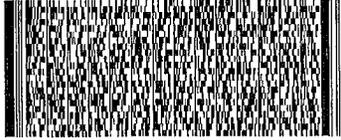
TRK# 7734 0766 3001

0201

MASTER

80002
CO-US
DEN

XH WHHA



537J26FCS5EE4B

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