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 5/14/15
INITIAL/DATE

COMMENTS:

SDG JP0950 SAF-RC-110

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

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

ANALYTICAL REPORT

Job Number: 280-68505-1

SDG Number: JP0950

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
5/13/2015 10:16 AM

Kae E Yoder, Senior Project Manager
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05/13/2015

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 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: 280-68505-1

SDG #: JP0950
SAF#: RC-110

Date SDG Closed: April 29, 2015
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V669	280-68505-1	WTPH-D+/8082	NWTPH-Dx/8082
J1V680	280-68505-2	WTPH-D+/8082	NWTPH-Dx/8082
J1V681		WTPH-D+/8082	
J1V682	280-68505-3	WTPH-D+/8082	NWTPH-Dx/8082
J1V683		WTPH-D+/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 4/29/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3º C.

The analyses requested for samples J1V681 and J1V683 were canceled, as instructed by the client on 4/29/2015.

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

GC SEMIVOLATILES - SW846 8082 - PCBs
The MS/MSD performed on sample J1V680 exhibited percent recoveries outside the control limits for Aroclor 1260, and the associated sample results have been flagged "N". In addition, the RPD limit was exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

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

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Analyzed for but not detected.
	N	MS, MSD: Spike recovery is outside acceptance limits.
	*	MS/MSD RPD exceeded the control limit
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-68505-1	J1V669	Solid	04/27/2015 1158	04/29/2015 0915
280-68505-2	J1V680	Solid	04/27/2015 1201	04/29/2015 0915
280-68505-3	J1V682	Solid	04/27/2015 1212	04/29/2015 0915

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

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: 280-68505-1
Sdg Number: JP0950

Method	Analyst	Analyst ID
SW846 8082	Jackson, Todd D	TDJ
NWTPH NWTPH-Dx	Moore, Tegan E	TEM
ASTM D-2216	Cherry, Scott V	SVC

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: **J1V669**

Lab Sample ID: 280-68505-1
Client Matrix: Solid
% Moisture: 8.4

Date Sampled: 04/27/2015 1158
Date Received: 04/29/2015 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-275351	Initial Weight/Volume:	31.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/04/2015 0614			Injection Volume:	1 uL
Prep Date:	04/30/2015 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

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

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: J1V680

Lab Sample ID: 280-68505-2
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/27/2015 1201
Date Received: 04/29/2015 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-275351	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/04/2015 0637			Injection Volume:	1 uL
Prep Date:	04/30/2015 1600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.0	U	8.0	16
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		43		2.6	10
Aroclor 1260		2.6	U N	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	81		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: **J1V682**

Lab Sample ID: 280-68505-3
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 04/27/2015 1212
Date Received: 04/29/2015 0915

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-275351	Initial Weight/Volume:	31.5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/04/2015 0747			Injection Volume:	1 uL
Prep Date:	04/30/2015 1600			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	86		59 - 130
Tetrachloro-m-xylene	78		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: J1V669

Lab Sample ID: 280-68505-1
Client Matrix: Solid
% Moisture: 8.4

Date Sampled: 04/27/2015 1158
Date Received: 04/29/2015 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-275348	Lab File ID:	05040007.D
Dilution:	1.0			Initial Weight/Volume:	30.4 g
Analysis Date:	05/04/2015 1346			Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		1100	U	1100	4300
C10-C28		730	U	730	4300

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

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: J1V680

Lab Sample ID: 280-68505-2
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/27/2015 1201
Date Received: 04/29/2015 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-275348	Lab File ID:	05040010.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	05/04/2015 1510			Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		12000		990	4000
C10-C28		7900		680	4000

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

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Client Sample ID: **J1V682**

Lab Sample ID: 280-68505-3
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 04/27/2015 1212
Date Received: 04/29/2015 0915

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Prep Method:	3550C	Prep Batch:	280-275348	Lab File ID:	05040011.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	05/04/2015 1538			Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		4300		980	3900
C10-C28		2100	J	670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	89		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

General Chemistry

Client Sample ID: **J1V669**

Lab Sample ID: 280-68505-1
Client Matrix: Solid

Date Sampled: 04/27/2015 1158
Date Received: 04/29/2015 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-275518 Analysis Date: 05/01/2015 1010 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

General Chemistry

Client Sample ID: **J1V680**

Lab Sample ID: 280-68505-2
Client Matrix: Solid

Date Sampled: 04/27/2015 1201
Date Received: 04/29/2015 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-275518 Analysis Date: 05/01/2015 1010 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

General Chemistry

Client Sample ID: **J1V682**

Lab Sample ID: 280-68505-3
Client Matrix: Solid

Date Sampled: 04/27/2015 1212
Date Received: 04/29/2015 0915

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.8		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-275518 Analysis Date: 05/01/2015 1010 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-68505-1	J1V669	83	74
280-68505-2	J1V680	81	75
280-68505-3	J1V682	86	78
MB 280-275351/1-A		82	74
LCS 280-275351/2-A		93	77
280-68505-2 MS	J1V680 MS	82	78
280-68505-2 MSD	J1V680 MSD	83	80

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

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Surrogate Recovery Report

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

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH %Rec
280-68505-1	J1V669	85
280-68505-2	J1V680	88
280-68505-3	J1V682	89
MB 280-275348/1-A		88
LCS 280-275348/2-A		87
280-68505-1 MS	J1V669 MS	88
280-68505-1 MSD	J1V669 MSD	84

Surrogate	Acceptance Limits
OTPH = o-Terphenyl	49-115

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Method Blank - Batch: 280-275351

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-275351/1-A	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-275351	Lab File ID:	05031558.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	05/04/2015 0527	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.7
Aroclor 1221	7.8	U	7.8	16
Aroclor 1232	1.9	U	1.9	9.7
Aroclor 1242	4.5	U	4.5	9.7
Aroclor 1248	4.5	U	4.5	9.7
Aroclor 1254	2.5	U	2.5	9.7
Aroclor 1260	2.5	U	2.5	9.7

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	82	59 - 130
Tetrachloro-m-xylene	74	53 - 128

Lab Control Sample - Batch: 280-275351

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-275351/2-A	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-275351	Lab File ID:	05031559.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	05/04/2015 0550	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	32.6	27.5	84	54 - 132	
Aroclor 1260	32.6	30.3	93	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	93	59 - 130
Tetrachloro-m-xylene	77	53 - 128

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-275351

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-68505-2	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-275351	Lab File ID:	05031562.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	05/04/2015 0700			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-68505-2	Analysis Batch:	280-275689	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-275351	Lab File ID:	05031563.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	05/04/2015 0724			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	85	92	54 - 132	10	26		
Aroclor 1260	223	152	62 - 129	36	26	N	N *

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	82	83	59 - 130
Tetrachloro-m-xylene	78	80	53 - 128

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-275351

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-68505-2	Units:	ug/Kg	MSD Lab Sample ID:	280-68505-2
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/04/2015 0700			Analysis Date:	05/04/2015 0724
Prep Date:	04/30/2015 1600			Prep Date:	04/30/2015 1600
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	2.8	U	33.1	33.6	28.1		30.9	
Aroclor 1260	2.6	U	33.1	33.6	73.9	N	51.2	N *

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Method Blank - Batch: 280-275348

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-275348/1-A	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-275348	Lab File ID:	05040005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.6 g
Analysis Date:	05/04/2015 1250	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	950	U	950	3800
C10-C28	640	U	640	3800

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

Lab Control Sample - Batch: 280-275348

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-275348/2-A	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-275348	Lab File ID:	05040006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	05/04/2015 1318	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	65100	59100	91	57 - 115	
C10-C28	65100	57600	88	53 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-275348

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68505-1	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-275348	Lab File ID:	05040008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/04/2015 1414			Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68505-1	Analysis Batch:	280-275798	Instrument ID:	SGC_U
Client Matrix:	Solid	Prep Batch:	280-275348	Lab File ID:	05040009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2015 1442			Final Weight/Volume:	1 mL
Prep Date:	04/30/2015 1640			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	92	88	57 - 115	6	23		
C10-C28	89	85	56 - 115	6	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	88	84	49 - 115

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-275348

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68505-1	Units:	ug/Kg	MSD Lab Sample ID:	280-68505-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/04/2015 1414			Analysis Date:	05/04/2015 1442
Prep Date:	04/30/2015 1640			Prep Date:	04/30/2015 1640
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	1100	U	71400	70700	65900	62000
C10-C28	730	U	71400	70700	63300	59800

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

Duplicate - Batch: 280-275518

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-68505-1	Analysis Batch:	280-275518	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:	05/01/2015 1010	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	8.4	7.6	10	20	

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-275348					
LCS 280-275348/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-275348/1-A	Method Blank	T	Solid	3550C	
280-68505-1	J1V669	T	Solid	3550C	
280-68505-1MS	Matrix Spike	T	Solid	3550C	
280-68505-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68505-2	J1V680	T	Solid	3550C	
280-68505-3	J1V682	T	Solid	3550C	
Prep Batch: 280-275351					
LCS 280-275351/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-275351/1-A	Method Blank	T	Solid	3550C	
280-68505-1	J1V669	T	Solid	3550C	
280-68505-2	J1V680	T	Solid	3550C	
280-68505-2MS	Matrix Spike	T	Solid	3550C	
280-68505-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68505-3	J1V682	T	Solid	3550C	
Analysis Batch:280-275689					
LCS 280-275351/2-A	Lab Control Sample	T	Solid	8082	280-275351
MB 280-275351/1-A	Method Blank	T	Solid	8082	280-275351
280-68505-1	J1V669	T	Solid	8082	280-275351
280-68505-2	J1V680	T	Solid	8082	280-275351
280-68505-2MS	Matrix Spike	T	Solid	8082	280-275351
280-68505-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-275351
280-68505-3	J1V682	T	Solid	8082	280-275351
Analysis Batch:280-275798					
LCS 280-275348/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-275348
MB 280-275348/1-A	Method Blank	T	Solid	NWTPH-Dx	280-275348
280-68505-1	J1V669	T	Solid	NWTPH-Dx	280-275348
280-68505-1MS	Matrix Spike	T	Solid	NWTPH-Dx	280-275348
280-68505-1MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-275348
280-68505-2	J1V680	T	Solid	NWTPH-Dx	280-275348
280-68505-3	J1V682	T	Solid	NWTPH-Dx	280-275348

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-68505-1
Sdg Number: JP0950

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-275518					
280-68505-1	J1V669	T	Solid	D-2216	
280-68505-1DU	Duplicate	T	Solid	D-2216	
280-68505-2	J1V680	T	Solid	D-2216	
280-68505-3	J1V682	T	Solid	D-2216	

Report Basis
T = Total

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-110-129

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Project Designation: 100-H Field Remediation	Sampling Location: 100-H-59:2 (excavation)		SAF No.: RC-110
Ice Chest No.: RCC-07-015	Field Logbook No.: EL-1627-09	COA: 01H5922600	Method of Shipment: Commercial Carrier \ Fed Ex
Shipped To: TestAmerica Denver	Offsite Property No.: A131406		Bill of Lading/Air Bill No.: See OSPC

Price Code: 8B

Data Turnaround: 7 days

Other Labs Shipped To: N/A

280-68505 Chain of Custody

Preservation	Cool 4C	Cool 4C										
Type of Container	aG	aG										
No. of Container(s)	1	1										
Volume	125mL	125mL										
Sample Analysis	TPH-Diesel Range - WTPH-D +	PCBs - 8082										

POSSIBLE SAMPLE HAZARDS/REMARKS

N/A

Special Handling and/or Storage

cooling as required

Sample No.	Matrix	Sample Date	Sample Time									
J1V665	SOIL											
J1V666	SOIL											
J1V667	SOIL											
J1V668	SOIL											
J1V669	SOIL	4/27/15	1158	X	X							

4/27/15

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1226 4-27-15	C. Martinez/C. Martinez	1226 4/27/15
C. Martinez/C. Martinez	1435 4/27/15	C. Bingham	4-27-15 1435
C. Bingham	4-27-15 1515	1060 Battelle, fridge #3A	1515 4-27-15
1060 Battelle, fridge #3A	0715 4-28-15	C. Bingham	4-28-15 0715
C. Bingham WCH	0730 4-28-15	Fed Ex	4-28-15
			4/29/15 9:15

FINAL SAMPLE DISPOSITION — Disposal Method — Disposed By — Date/Time

SPECIAL INSTRUCTIONS

REVIEWED BY K. Woodvineman DATE 4-28-15

1.1 IRS to 2 Transferred by MJ 4/29/15

JP0950

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-110-131

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)		**SAF No.** RC-110
Ice Chest No. RCC-07-015	**Field Logbook No.** EL-1627-09	**COA** 01H5922600	**Method of Shipment** Commercial Carrier / Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131406		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
N/A

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	Cool 4C										
Type of Container	aG	aG										
No. of Container(s)	1	1										
Volume	125mL	125mL										
Sample Analysis	TPH-Diesel Range - WTPH-D +	PCBs - 8082										

Sample No.	Matrix	Sample Date	Sample Time										
J1V680	SOIL	4/27/15	1201	X	X								
J1V681	SOIL	4/27/15	1207	X	X								
J1V682	SOIL	4/27/15	1212	X	X								
J1V683	SOIL	4/27/15	1217	X	X								
J1V684 4/27/15	SOIL												

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1226 4-27-15	C. Martinez/C. Martinez	1226 4/27/15
C. Martinez/C. Martinez	4/27/15 1435	C. Bingham	4-27-15 1435
C. Bingham	4-27-15 1515	1060 Battelle, fridge #3A	4-27-15 1515
1060 Battelle, fridge #3A	4-28-15 0715	C. Bingham	4-28-15 0715
C. Bingham WCH	4-28-15 0730	fed Ex	4-28-15
			4-29-15 9:15

FINAL SAMPLE DISPOSITION — Disposal Method — Disposed By — Date/Time

SPECIAL INSTRUCTIONS

REVIEWED BY K. Wood/Vincent DATE 4-28-15

JP0950

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

90w Permission

Project 28002142

Report Due: 5/6/2015 D Vb: 4-30-15

TALs TAT: Rush 5dy

Sample Check-in List

Date/Time Received: 4/29/15 9:15 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: JP0950 NA[ ] SAF #: RC-110 NA [ ]

Job Number: 68505 Chain of Custody # RC-110-129, 131

Shipping Container ID: WCH-08-067 Air Bill # 7734 7484 9410

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: 1.1 IR5+0.2 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
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 HNO_3 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: 4/29/15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ____ by ____ Person Contacted ____

[ ] No action necessary; process as is.

Project Manager Darlene Banfey Date 4-30-15

LS-023, Rev. 7, 1/08

From: (509) 376-7492
1162 Shipping
US DOE c/o WCH
2355 Stevens Dr

Richland, WA 99354

Origin ID: PSCA

FedEx Express

J15121502303uv

Ship Date: 28APR15
ActWgt: 70.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 01H5922600
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100
BILL THIRD PARTY

Kae Yoder
TestAmerica
4955 Yarrow St.
A131406
ARVADA, CO 80002

3 of 4

MPS# 7734 7484 4156
0263
Mstr# 7734 7484 4410 0201

WED - 29 APR 10:30A
PRIORITY OVERNIGHT

80002
CO-US
DEN

XH WHHA

537J1/25E2/EE4B

WCH-08-067

Temp 11 IR# 5
CF +0.2 Initals
Date: 04/29/15

After printing this label:
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