SAF-RC-155
618-10 & 618-11 Field Remediation – Other
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required KW 11/16/15
INITIAL/DATE

COMMENTS:

SDG JP1014 SAF-RC-155

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 618-10 concrete drums/grout batches, GR-249C

ANALYTICAL REPORT

Job Number: 280-76605-1

SDG Number: JP1014

Job Description: SAF# RC-155

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Senior Project Manager
11/13/2015 1:07 PM

Kae E Yoder, Senior Project Manager
4955 Yarrow Street, Arvada, CO, 80002
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11/13/2015

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: 280-76605-1

SDG #: JP1014
SAF#: RC-155

Date SDG Closed: November 10, 2015
Data Deliverable: 3 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V880	280-76605-1	1311-6010-7470	1311-6010B-7470A

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.

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 11/10/2015 9:25 AM; the sample arrived intact, but at an elevated temperature of 11.7º C. No ice was present in the cooler. The client was notified on 11/10/2015.

TCLP METALS - SW846 1311/6010B/7470A
Sodium was recovered outside the control limits, biased high, in the LCS associated with batch 280-303788, and the associated sample result has been flagged “N”. In addition, Sodium is present at a level greater than the reporting limit in the method blank associated with batch 280-303788. The reagent used to make the blank fluid for this TCLP extraction contains Sodium; therefore, data are reported.

Low levels of Barium and Chromium are present in the method blank associated with batch 280-303788. Because the concentrations in the method blank are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Sodium in the Matrix Spike performed on sample J1V880; therefore, control limits are not applicable.

Nickel was recovered outside the control limits in the Matrix Spike performed on sample J1V880, and the associated sample result has been flagged “N”. There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-76605-1	J1V880	Solid	11/05/2015 1049	11/10/2015 0925

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Total Metals	TAL DEN		SW846 3010A
TCLP Mercury	TAL DEN	SW846 7470A	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Mercury	TAL DEN		SW846 7470A

Lab References:

TAL DEN = TestAmerica Denver

Method References:

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: 280-76605-1
Sdg Number: JP1014

Method	Analyst	Analyst ID
SW846 6010B	Rhoades, Chris R	CRR
SW846 6010B	Scott, Samantha J	SJS
SW846 7470A	Kelly, Cara M	CMK

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Client Sample ID: **J1V880**

Lab Sample ID: 280-76605-1
Client Matrix: Solid

Date Sampled: 11/05/2015 1049
Date Received: 11/10/2015 0925

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-303989	Instrument ID:	MT_026
Prep Method:	3010A	Prep Batch:	280-303788	Lab File ID:	26a111215dd.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 0141			Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Antimony		0.016	U	0.016	0.20
Barium		1.6		0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.095	B	0.0030	0.50
Lead		0.028	B	0.013	0.50
Nickel		0.0060	U N	0.0060	0.40
Thallium		0.024	U	0.024	0.10
Zinc		0.022	U	0.022	2.0

Analysis Method:	6010B	Analysis Batch:	280-304016	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-303788	Lab File ID:	25Z111315.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 1041			Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Aluminum		0.87	B	0.090	10.0
Arsenic		0.051	B	0.022	0.50
Beryllium		0.0020	U	0.0020	0.030
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50
Sodium		1490	C N	0.46	50.0
Vanadium		0.0060	U	0.0060	0.10

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-303941	Instrument ID:	MT_034
Prep Method:	7470A	Prep Batch:	280-303774	Lab File ID:	151112ba.txt
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	30 mL
Analysis Date:	11/12/2015 1434			Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1120				
Leach Date:	11/11/2015 1655				

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

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

TCLP SPLPE Leachate Blank - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-303630/1-C	Analysis Batch:	280-303989	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	26a111215dd.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 0136	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Result	Qual	MDL	RL
Antimony	0.016	U	0.016	0.20
Barium	0.00610	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.00495	B	0.0030	0.50
Lead	0.013	U	0.013	0.50
Nickel	0.0060	U	0.0060	0.40
Thallium	0.024	U	0.024	0.10
Zinc	0.022	U	0.022	2.0

TCLP SPLPE Leachate Blank - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-303630/1-C	Analysis Batch:	280-304016	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	25Z111315.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 1036	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Result	Qual	MDL	RL
Aluminum	0.090	U	0.090	10.0
Arsenic	0.022	U	0.022	0.50
Beryllium	0.0020	U	0.0020	0.030
Selenium	0.024	U	0.024	0.10
Silver	0.0040	U	0.0040	0.50
Sodium	1443		0.46	50.0
Vanadium	0.0060	U	0.0060	0.10

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Lab Control Sample - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-303630/2-C	Analysis Batch:	280-303989	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	26a111215dd.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 0139	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.500	0.459	92	80 - 120	
Barium	12.0	10.69	89	80 - 120	
Cadmium	1.10	0.970	88	80 - 120	
Chromium	5.20	4.42	85	80 - 120	
Lead	5.50	4.78	87	80 - 120	
Nickel	0.500	0.413	83	80 - 120	
Thallium	2.00	1.72	86	80 - 120	
Zinc	2.50	2.33	93	80 - 120	

Lab Control Sample - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-303630/2-C	Analysis Batch:	280-304016	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	25Z111315.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 1038	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2.00	1.96	98	80 - 120	B
Arsenic	4.00	3.95	99	80 - 120	
Beryllium	0.0500	0.0494	99	80 - 120	
Selenium	3.00	2.94	98	80 - 120	
Silver	1.05	1.00	96	80 - 120	
Sodium	50.0	1501	3002	80 - 120	N
Vanadium	0.500	0.482	96	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Matrix Spike - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-303989	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	26a111215dd.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 0149	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.016	U	0.500	0.440	88	80 - 120	
Barium	1.6		12.0	11.28	80	80 - 120	
Cadmium	0.0020	U	1.10	0.923	84	80 - 120	
Chromium	0.095	B	5.20	4.26	80	80 - 120	
Lead	0.028	B	5.50	4.53	82	80 - 120	
Nickel	0.0060	U	0.500	0.390	78	80 - 120	B N
Thallium	0.024	U	2.00	1.63	81	80 - 120	
Zinc	0.022	U	2.50	2.16	87	80 - 120	

Matrix Spike - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-304016	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	25Z111315.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 1049	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	0.87	B	2.00	2.69	91	80 - 120	B
Arsenic	0.051	B	4.00	4.10	101	80 - 120	
Beryllium	0.0020	U	0.0500	0.0492	98	80 - 120	
Selenium	0.024	U	3.00	2.97	99	80 - 120	
Silver	0.0040	U	1.05	1.01	97	80 - 120	
Sodium	1490		50.0	1486	-12	80 - 120	C 4
Vanadium	0.0060	U	0.500	0.482	96	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Duplicate - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-303989	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	26a111215dd.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 0146	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	0.016	U	0.016	NC	20	U
Barium	1.6		1.70	4	20	
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	0.095	B	0.101	6	20	B
Lead	0.028	B	0.013	NC	20	U
Nickel	0.0060	U	0.0060	NC	20	U
Thallium	0.024	U	0.024	NC	20	U
Zinc	0.022	U	0.022	NC	20	U

Duplicate - Batch: 280-303788

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-304016	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-303788	Lab File ID:	25Z111315.asc
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	10 mL
Analysis Date:	11/13/2015 1046	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1445				
Leach Date:	11/11/2015 1655				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	0.87	B	0.888	2	20	B
Arsenic	0.051	B	0.0469	9	20	B
Beryllium	0.0020	U	0.0020	NC	20	U
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0040	U	0.0040	NC	20	U
Sodium	1490		1521	2	20	C N
Vanadium	0.0060	U	0.0060	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

TCLP SPLPE Leachate Blank - Batch: 280-303774

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-303630/1-B	Analysis Batch:	280-303941	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-303774	Lab File ID:	151112ba.txt
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	30 mL
Analysis Date:	11/12/2015 1430	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1120				
Leach Date:	11/11/2015 1655				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-303774

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-303630/2-B	Analysis Batch:	280-303941	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-303774	Lab File ID:	151112ba.txt
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	30 mL
Analysis Date:	11/12/2015 1432	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1120				
Leach Date:	11/11/2015 1655				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00558	112	90 - 116	

Matrix Spike - Batch: 280-303774

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-303941	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-303774	Lab File ID:	151112ba.txt
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	30 mL
Analysis Date:	11/12/2015 1439	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1120				
Leach Date:	11/11/2015 1655				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00558	112	90 - 116	

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

Duplicate - Batch: 280-303774

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-76605-1	Analysis Batch:	280-303941	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-303774	Lab File ID:	151112ba.txt
Dilution:	1.0	Leach Batch:	280-303630	Initial Weight/Volume:	30 mL
Analysis Date:	11/12/2015 1437	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/12/2015 1120				
Leach Date:	11/11/2015 1655				

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

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-303630					
LCS 280-303630/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-303630/2-C	Lab Control Sample	P	Solid	1311	
LB 280-303630/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-303630/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-76605-1	J1V880	P	Solid	1311	
280-76605-1DU	Duplicate	P	Solid	1311	
280-76605-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-303774					
LCS 280-303630/2-B	Lab Control Sample	P	Solid	7470A	280-303630
LB 280-303630/1-B	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-303630
280-76605-1	J1V880	P	Solid	7470A	280-303630
280-76605-1DU	Duplicate	P	Solid	7470A	280-303630
280-76605-1MS	Matrix Spike	P	Solid	7470A	280-303630
Prep Batch: 280-303788					
LCS 280-303630/2-C	Lab Control Sample	P	Solid	3010A	280-303630
LB 280-303630/1-C	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-303630
280-76605-1	J1V880	P	Solid	3010A	280-303630
280-76605-1DU	Duplicate	P	Solid	3010A	280-303630
280-76605-1MS	Matrix Spike	P	Solid	3010A	280-303630
Analysis Batch:280-303941					
LCS 280-303630/2-B	Lab Control Sample	P	Solid	7470A	280-303774
LB 280-303630/1-B	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-303774
280-76605-1	J1V880	P	Solid	7470A	280-303774
280-76605-1DU	Duplicate	P	Solid	7470A	280-303774
280-76605-1MS	Matrix Spike	P	Solid	7470A	280-303774
Analysis Batch:280-303989					
LCS 280-303630/2-C	Lab Control Sample	P	Solid	6010B	280-303788
LB 280-303630/1-C	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-303788
280-76605-1	J1V880	P	Solid	6010B	280-303788
280-76605-1DU	Duplicate	P	Solid	6010B	280-303788
280-76605-1MS	Matrix Spike	P	Solid	6010B	280-303788
Analysis Batch:280-304016					
LCS 280-303630/2-C	Lab Control Sample	P	Solid	6010B	280-303788
LB 280-303630/1-C	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-303788
280-76605-1	J1V880	P	Solid	6010B	280-303788
280-76605-1DU	Duplicate	P	Solid	6010B	280-303788
280-76605-1MS	Matrix Spike	P	Solid	6010B	280-303788

Client: Washington Closure Hanford

Job Number: 280-76605-1
Sdg Number: JP1014

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
P = TCLP

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-155-186

Page 1 of 1

Collector: D. Becker	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Project Designation: 618-10 & 618-11 Remediation	Sampling Location: 618-10 concrete drums/grout batchs, GR- 249-C		SAF No.: RC-155
Ice Chest No.: WCH-11-023	Field Logbook No.: EL-1664-01	COA: R618102F20	Method of Shipment: Commercial Carrier
Shipped To: TestAmerica Denver	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: SEE RSR

Price Code: 9A

Data Turnaround: 3 days

Other Labs Shipped To: N/A TRE 11-5-15

Preservation	None	none
Type of Container	G/P	G/P
No. of Container(s)	1	0
Volume	500mL	500mL
Sample Analysis	See item (1) in Special Instructions	RCF Shipping screen

TRE 11-5-15

POSSIBLE SAMPLE HAZARDS/REMARKS

radioactive

Special Handling and/or Storage

trans ship RCF to TA-DEN

280-76605 Chain of Custody

Sample No.	Matrix	Sample Date	Sample Time										
~~JIV878~~	~~OTHER~~	~~11/05/15~~	~~1041~~	~~X~~	~~X~~	~~39548~~	~~92g~~	TRE 11-5-15	*				
~~JIV879~~	~~other~~	~~11/05/15~~	~~1045~~	~~X~~	~~X~~	~~39549~~	~~108g~~	TRE 11-5-15	*				
JIV880	other	11/05/15	1049	X	X	39550	110g						

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CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From: DAVID BECKER [signature]	Date/Time: 11.05.15 1105	Received By/Stored In: C. Martinez / C. Martinez	Date/Time: 1105 11/05/15
Relinquished By/Removed From: C. Martinez / C. Martinez	Date/Time: 1210 11/05/15	Received By/Stored In: T.R. Edmundson / T.R. Edmundson	Date/Time: 11-5-15 1210
Relinquished By/Removed From: T.R. Edmundson / T.R. Edmundson	Date/Time: 11-5-15 1220	Received By/Stored In: MO-6107 RMA	Date/Time: 11-5-15 1220
Relinquished By/Removed From: MO-6107 RMA	Date/Time: 11-5-15 1540	Received By/Stored In: T.R. Edmundson / T.R. Edmundson	Date/Time: 11-5-15 1540
Relinquished By/Removed From: T.R. Edmundson / T.R. Edmundson	Date/Time: 11-5-15 1605	Received By/Stored In: RCF D. Miller	Date/Time: 1605 11-5-15
Relinquished By/Removed From: D. Miller [signature] RCF	Date/Time: 11-9-15 0930	Received By/Stored In: T.R. Edmundson / T.R. Edmundson	Date/Time: 11-9-15 0930
Relinquished By/Removed From: T.R. Edmundson / T.R. Edmundson WCH	Date/Time: 11-9-15 1500	Received By/Stored In: Fed Ex	Date/Time: 11-9-15

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals (TCLP) (Client List) - 1311/6010 {Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Lead, Nickel, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc}; Mercury (TCLP) - 1311/7470 (Client List) {Mercury}

* Split chain to ship JIV880 alone to TestAmerica Denver. TRE ~~11-9-15~~ 11-9-15 TRE

Received: [signature] 0925 10 Nov 15

JP1014

11.6 IRE+0.1 10 Nov 15

REVIEWED BY KW Pestele DATE 11-9-15

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

*90 w/permission ✓

Temp 11.6 IR# 5
CF +0.1 Initials AMW
Date: 11/10/15
No ice

Project 28002142
Report Due: 11/13/2015
TALs TAT: 3-Day - RUSH > D.B. 11-10-15

Sample Check-in List

Date/Time Received: 0925 10 Nov 15 **GM Screen Result** 20 microR/hr

Client: Washington Closure Hanford **SDG #:** JP1014 NA[ ] **SAF #:** BC-155 NA [ ]

Job Number: 76605 **Chain of Custody #** BC-155-1866

Shipping Container ID: WCH-11-023 **Air Bill #** 7749 3246 7068

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? NA [ ] Yes [X] No [ ]
4. Cooler Temperature °C: 11.6 IR5 +0.1 NA [ ] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [X]
8. Samples have:
   - X Tape
   - X Custody Seals
   - X Hazard Labels
   - X Appropriate Sample Labels
9. Samples are:
   - X In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles (Only for samples requiring no head space.)
10. Sample pH taken? NA [X] pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added** ___
11. Sample Location, Sample Collector Listed? * y
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [✓] ~~No [X]~~ D.B. 11-10-15
13. Description of anomalies (include sample numbers): Sample JV880 was received at an elevated temperature. D.B. 11-10-15

Sample Custodian: Ashley Munoz **Date:** 10 Nov 15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on 11-10-15 by D.B. Person Contacted Joan Kosser

[ ] No action necessary; process as is.

Project Manager Darlene Bandy Date 11-10-15

LS-023, Rev. 7, 1/08

ORIGIN ID:PSCA (509) 376-6638
SHANDA ICAYAN
US DOE C/O MISSION SUPPORT ALLIANCE
2355 STEVENS DR BLDG 1162
RICHLAND, WA 99354
UNITED STATES US

SHIP DATE: 09NOV15
ACTWGT: 17.00 LB
CAD: 105266502/INET3670

BILL THIRD PARTY

TO KAE YODER
TEST AMERICA
4955 YARROW ST

ARVADA CO 80002
(303) 736-0190 REF: R618102F20 RMWC-9147
INV:
PO: DEPT:

539J2/3F56/31D0

FedEx Express

J153015031001uv

TUE - 10 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7749 3246 7068

XH WHHA

80002
CO-US DEN

UN2910, Radioactive Material,
Excepted Package - Limited
Quantity of Material

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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