

SAF-RC-207
Remedial Action of the 100-C-7 &
100-C-7:1 Waste Sites – In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt

H4-21

KW 10/16/12
INITIAL/DATE

COMMENTS:

SDG J01602 SAF-RC-207

Rad only

Chem only

Rad & Chem

Complete

Partial

Sample Location: 100-C-7:1 (TP potential ACL)

Analytical Data Package Prepared For

Washington Closure Hanford

Analysis Provided By

TestAmerica Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TARL



SDG Number:J01602

Data Package Contains 9 Pages

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

October 15, 2012

Attention: Joan Kessner

SAF Number	:	RC-207
Date SDG Closed	:	October 12, 2012
Number of Samples	:	Three (3)
Sample Type	:	Soil
SDG Number	:	J01602
Data Deliverable	:	3-Day / Summary

CASE NARRATIVE

I. Introduction

On October 11, 2012, three soil samples were received at TestAmerica for analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

<u>WCH ID#</u>	<u>TARL ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
J1R337-A	MWXHL	SOIL	10/11/12
J1R338-A	MWXHM	SOIL	10/11/12
J1R339-A	MWXHN	SOIL	10/11/12

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors. The requested analyses were:

ICP Metals
Metals by ICP (TCLP) method SW-846 6010A

IV. Quality Control

SDG J01602 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

Washington Closure Hanford
October 15, 2012

V. Comments

ICP Metals

Metals by ICP (TCLP) method SW-846 6010A

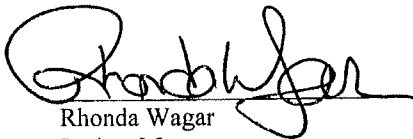
One batch was analyzed for the samples with the standard metal request list.

Batch 2286034:

The Lead recovery is outside the acceptance limits on the sample matrix spike duplicate. All other QC acceptance requirements are within limits, data is accepted. Except as noted; the LCS, batch blank, samples, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. 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 following signature.

Reviewed and approved:



Rhonda Wagar
Project Manager

Clouseau Nonconformance Memo



NCM #: 10-22060 NCM Initiated By: Traci KROUPA Date Opened: 10/15/2012 Date Closed:	Classification: Deficiency Status: PMREVIEW Production Area: Classical Chemistry Tests: 6010A Lot #'s (Sample #'s): J2J110451 (1,2,3), J2J120000 (34), QC Batches: 2286034,
Nonconformance: Batch Result Out of Limits Subcategory: MS/MSD result outside acceptance limits	

Problem Description / Root Cause

Name	Date	Description
Traci KROUPA	10/15/2012	The MSD was below the 20% <i>recovery</i> ^{TK 10/15/12} for Pb.

Corrective Action

Name	Date	Corrective Action
Traci KROUPA	10/15/2012	Reported Data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TK 10/15/12

SDG: J01602
 SAF: RC-207
 BATCH: 2286034
 MATIX: SOIL
 ANALYSIS DATE: 10/15/12


TesAmerica Laboratories, Inc.

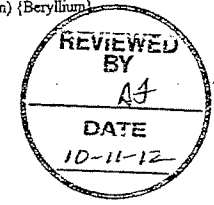
5

Client_id	Matrix	Result	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits	Reporting_Limits	Uncertainty_1s	Analyzed_Analyze	Decision_level	LCSReAddr	Analysis_date_time	Batch_nbi	Test_Mr	Lab_sample_id
J1R337-A	SOIL	CS	7440-22-4	Ag	-4.70E-04	U	MG/L	5.00E-02	5.00E-02	6.10E-04	99.9957	G	5.03E-04	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7440-38-2	As	2.86E-03	U	MG/L	2.50E-01	2.50E-01	1.70E-03	99.9957	G	1.42E-03	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7440-39-3	Ba	7.93E-02	U	MG/L	2.50E-01	2.50E-01	3.60E-04	99.9957	G	2.95E-04	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7440-43-9	Cadmium	3.64E-04	U	MG/L	2.50E-02	2.50E-02	2.00E-04	99.9957	G	1.63E-04	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7440-47-3	Chromium	-6.36E-05	U	MG/L	5.00E-02	5.00E-02	1.60E-04	99.9957	G	1.29E-04	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7439-92-1	Lead	2.98E-03	U	MG/L	1.00E+00	1.00E+00	8.10E-04	99.9957	G	6.62E-04	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	CS	7782-49-2	Se	8.29E-03	U	MG/L	2.50E-01	2.50E-01	3.00E-03	99.9957	G	2.48E-03	10/15/2012 14:58	2286034	JYDQ	MWXHL1A0
J1R338-A	SOIL	CS	7440-22-4	Ag	-2.35E-04	U	MG/L	5.00E-02	5.00E-02	1.40E-03	99.9986	G	1.15E-03	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7440-38-2	As	4.55E-03	U	MG/L	2.50E-01	2.50E-01	1.20E-03	99.9986	G	9.79E-04	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7440-39-3	Ba	1.49E-01	U	MG/L	2.50E-01	2.50E-01	7.00E-04	99.9986	G	5.73E-04	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7440-43-9	Cadmium	7.21E-04	U	MG/L	2.50E-02	2.50E-02	1.30E-04	99.9986	G	1.08E-04	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7440-47-3	Chromium	-2.55E-04	U	MG/L	5.00E-02	5.00E-02	4.60E-04	99.9986	G	3.76E-04	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7439-92-1	Lead	2.46E-03	U	MG/L	1.00E+00	1.00E+00	1.60E-03	99.9986	G	1.32E-03	10/15/2012 15:16	2286034	JYDQ	MWXHM1AA
J1R338-A	SOIL	CS	7782-49-2	Se	8.72E-03	U	MG/L	2.50E-01	2.50E-01	2.60E-04	99.9986	G	2.12E-04	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7440-22-4	Ag	2.49E-06	U	MG/L	5.00E-02	5.00E-02	4.70E-04	100	G	3.89E-04	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7440-38-2	As	3.15E-03	U	MG/L	2.50E-01	2.50E-01	3.60E-03	100	G	2.92E-03	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7440-39-3	Ba	4.59E-01	U	MG/L	2.50E-01	2.50E-01	2.70E-03	100	G	2.23E-03	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7440-43-9	Cadmium	4.67E-04	U	MG/L	2.50E-02	2.50E-02	3.80E-04	100	G	3.13E-04	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7440-47-3	Chromium	-1.08E-04	U	MG/L	5.00E-02	5.00E-02	8.70E-04	100	G	7.19E-04	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7439-92-1	Lead	1.39E-03	U	MG/L	1.00E+00	1.00E+00	1.00E-03	100	G	8.61E-04	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
J1R339-A	SOIL	CS	7782-49-2	Se	7.50E-03	U	MG/L	2.50E-01	2.50E-01	1.80E-03	100	G	1.44E-03	10/15/2012 15:20	2286034	JYDQ	MWXHM1AA
INTRA-LAB BLANK	SOIL	BLK	7440-22-4	Ag	-2.77E-05	U	MG/L	5.00E-02	5.00E-02	1.20E-03	100	L	9.73E-04	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7440-38-2	As	3.67E-03	U	MG/L	2.50E-01	2.50E-01	2.10E-03	100	L	1.71E-03	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7440-39-3	Ba	2.95E-03	U	MG/L	2.50E-01	2.50E-01	2.90E-03	100	L	2.42E-03	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7440-43-9	Cadmium	3.50E-04	U	MG/L	2.50E-02	2.50E-02	1.50E-04	100	L	1.24E-04	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7440-47-3	Chromium	9.47E-04	U	MG/L	5.00E-02	5.00E-02	1.30E-03	100	L	1.09E-03	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7439-92-1	Lead	2.38E-03	U	MG/L	1.00E+00	1.00E+00	3.90E-03	100	L	3.19E-03	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB BLANK	SOIL	BLK	7782-49-2	Se	8.04E-03	U	MG/L	2.50E-01	2.50E-01	2.10E-03	100	L	1.76E-03	10/15/2012 14:42	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7440-22-4	Ag	1.06E+00		MG/L	5.00E-02	5.00E-02	1.10E-02	100	L	9.22E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7440-38-2	As	1.09E+00		MG/L	2.50E-01	2.50E-01	7.20E-03	100	L	5.96E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7440-39-3	Ba	9.48E-01		MG/L	2.50E-01	2.50E-01	1.30E-02	100	L	1.09E-02	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7440-43-9	Cadmium	9.86E-01		MG/L	2.50E-02	2.50E-02	7.90E-03	100	L	6.47E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7440-47-3	Chromium	1.01E+00		MG/L	5.00E-02	5.00E-02	1.20E-02	100	L	9.69E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7439-92-1	Lead	9.10E-01	U	MG/L	1.00E+00	1.00E+00	9.20E-03	100	L	7.58E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
INTRA-LAB CHECK	SOIL	LCS	7782-49-2	Se	1.10E+00		MG/L	2.50E-01	2.50E-01	8.00E-03	100	L	6.62E-03	10/15/2012 14:45	2286034	JYDQ	MWXMQ1AA
J1R337-A	SOIL	MS	7440-22-4	Ag	1.03E+00		% REC	5.00E-02	5.00E-02	2.40E-03	99.9957	L	1.95E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7440-38-2	As	1.08E+00		% REC	2.50E-01	2.50E-01	3.30E-03	99.9957	L	2.73E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7440-39-3	Ba	9.18E-01		% REC	2.50E-01	2.50E-01	5.20E-03	99.9957	L	4.28E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7440-43-9	Cadmium	9.73E-01		% REC	2.50E-02	2.50E-02	3.80E-03	99.9957	L	3.14E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7440-47-3	Chromium	9.72E-01		% REC	5.00E-02	5.00E-02	8.10E-03	99.9957	L	6.69E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7439-92-1	Lead	8.97E-01	U	% REC	1.00E+00	1.00E+00	1.30E-03	99.9957	L	1.03E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MS	7782-49-2	Se	1.07E+00		% REC	2.50E-01	2.50E-01	5.70E-03	99.9957	L	4.68E-03	10/15/2012 15:01	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7440-22-4	Ag	1.03E+00		% REC	5.00E-02	5.00E-02	1.00E-02	99.9957	L	8.43E-03	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7440-38-2	As	1.08E+00		% REC	2.50E-01	2.50E-01	1.20E-02	99.9957	L	9.85E-03	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7440-39-3	Ba	9.16E-01		% REC	2.50E-01	2.50E-01	1.70E-02	99.9957	L	1.40E-02	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7440-43-9	Cadmium	9.73E-01		% REC	2.50E-02	2.50E-02	1.20E-02	99.9957	L	9.67E-03	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7440-47-3	Chromium	9.68E-01		% REC	5.00E-02	5.00E-02	6.90E-03	99.9957	L	5.65E-03	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7439-92-1	Lead	8.86E-01	U	% REC	1.00E+00	1.00E+00	7.50E-03	99.9957	L	6.18E-03	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0
J1R337-A	SOIL	MSD	7782-49-2	Se	1.07E+00		% REC	2.50E-01	2.50E-01	1.80E-02	99.9957	L	1.47E-02	10/15/2012 15:06	2286034	JYDQ	MWXHL1A0

TCLP

TestAmerica Laboratories, Inc.

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-207-093		Page 1 of 1		
Collector A. Dunning		Company Contact Joan Kessner		Telephone No. 509-375-4688		Project Coordinator KESSNER, JH		Price Code 8L		Data Turnaround 24 hr 21 Days A# 10-11-12	
Project Designation Remedial Action of the 100-C-7 & 100-C-7:1 Waste Sites - I		Sample Location 100-C-7:1(TP potential ACL)			SAF No. RC-207						
Ice Chest No. N/A		Field Logbook No. EL-1655-06		COA R00C712600		Method of Shipment Hand deliver					
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A			Bill of Lading/Air Bill No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>				Preservation	None	Cool 4C	Cool 4C				
Special Handling and/or Storage <i>Cool 4 degrees centigrade</i>				Type of Container	aG	G/P	G/P				
				No. of Container(s)	1	1	1				
				Volume	125mL	125mL	125mL				
<i>J25110451</i>  <i>J01602</i> <i>Due 10-15-12</i>				See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196 - Quick Turn					
Sample No.	Matrix *	Sample Date	Sample Time								
<i>J1R337</i>	<i>MWXL</i>	<i>10-11-12</i>	<i>13:25</i>	<i>X</i>	<i>X</i>	<i>X</i>					
<i>J1R338</i>	<i>MWXLm</i>	<i>10-11-12</i>	<i>13:35</i>	<i>X</i>	<i>X</i>	<i>X</i>					
<i>J1R339</i>	<i>MWXLW</i>	<i>10-11-12</i>	<i>13:44</i>	<i>X</i>	<i>X</i>	<i>X</i>					
<i>J1R340</i>	SOIL										
<i>J1R341</i>	SOIL										
CHAIN OF POSSESSION			Sign/Print Names			SPECIAL INSTRUCTIONS					Matrix *
Relinquished By/Removed From <i>A. Dunning</i>		Date/Time <i>10-11-12 14:05</i>	Received By/Stored In <i>R. Felle</i>		Date/Time <i>10-11-12 14:05</i>	(1) Metals by ICP (TCLP) - 1311/6010 (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Mercury (TCLP) - 1311/7470 (Mercury) (2) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Metals by ICP - 6010 - Quick Turn (Add On) (Beryllium)					S=Soil SW=Soil SL=Solid W=Water On=On A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>R. Felle</i>		Date/Time <i>10-11-12 14:15</i>	Received By/Stored In <i>Cherlene</i>		Date/Time <i>10-11-12 14:15</i>						
Relinquished By/Removed From <i>Cherlene</i>		Date/Time <i>10-11-12 15:40</i>	Received By/Stored In <i>Cherlene</i>		Date/Time <i>10-11-12 15:40</i>						
Relinquished By/Removed From <i>WCH</i>		Date/Time <i>10-11-12 15:54</i>	Received By/Stored In <i>J. Beck</i>		Date/Time <i>10-11-12 15:54</i>						
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time						
LABORATORY SECTION	Received By		Title								Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By								Date/Time





Analysis Report for RCF34638

12-40859-1-003 ...BAG SAF:RC-001 100N/107N BAG OF IH SAMPLES

GAMMA SPECTRUM ANALYSIS

Sample Identification : RCF34638
 Sample Description : 12-40859-1-003 ...BAG SAF:RC-001 100N/107N BAG OF IH SAMPLES
 Sample Type : COC Bagged Composite Samples

 Sample Size : 1.000E+00 units
 Facility : Default

 Sample Taken On : 10/9/2012 4:00:00PM
 Acquisition Started : 10/11/2012 9:37:26AM

 Procedure : COC Bagged Composite Samples
 Operator : RCT
 Detector Name : NEWBEGE
 Geometry : 50 ml PII Box
 Live Time : 1800.0seconds
 Real Time : 1800.2seconds

 Dead Time : 0.01 %

 Peak Locate Threshold : 3.00
 Peak Locate Range (In channels) : 40 - 4096
 Peak Area Range (In channels) : 40 - 4096
 Identification Energy Tolerance : 1.000 keV

 Energy Calibration Used Done On : 7/18/2012
 Efficiency Calibration Used Done On : 3/9/2012
 Efficiency Calibration Description : NBEGE 50ml PB EC030712 SN85268-238

 Sample Number : 28401

"Qualitative Only"

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/units)	Wt mean Activity Uncertainty	Comments

Sample Check-in List

TCLP

Date/Time Received: 10-11-12/1554 Container GM Screen Result: (Airlock) .06 Initials BB]
Sample GM Screen Result (Sample Receiving) .06 Initials BB]

Client: WCHA SDG #: 501602 NA [] SAF #: RC-207 NA []

Lot Number: 525110451

Chain of Custody # RC-207-093

Shipping Container ID: hand deliv. NA BB Air Bill Number: _____ NA BB

Samples received inside shipping container/cooler/box Yes BB] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal BB]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal BB]
3. Cooler temperature: 5.4 °C ON ICE NA []
4. Vermiculite/packing materials is NA BB] Wet [] Dry []

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes BB] No []
6. Number of samples received (Each sample may contain multiple bottles): 3
7. Containers received: 3 x 125 mL AG

8. Sample holding times exceeded? NA [] Yes [] No BB]

9. Samples have:
BB tape custody seals BB hazard labels appropriate sample labels

10. Matrix:
BB A (FLT, Wipe, Solid, Soil) _____ I (Water)
_____ S (Air, Niosh 7400) _____ T (Biological, Ni-63)

11. Samples:
BB are in good condition _____ are leaking
_____ are broken _____ have air bubbles (Only for samples requiring no head space)
Other _____

12. Sample pH appropriate for analysis requested Yes [] No [] NA BB]
(If acidification is necessary, then document sample ID, initial pH, amount of HNO₃ added and pH after addition on table overleaf)

RPL ID # of preservative used : _____

13. Were any anomalies identified in sample receipt? Yes [] No BB]

14. Description of anomalies (include sample numbers): NA BB]

