

SAF-RC-225
100K Remaining Waste Sites –
Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt

H4-21

KW 8/16/11
INITIAL/DATE

COMMENTS:

SDG JP0254

SAF-RC-225

Rad only

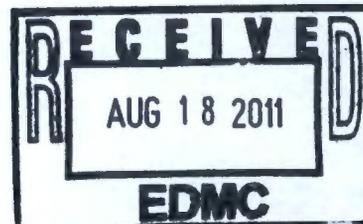
Chem only

Rad & Chem

Complete

Partial

Sample Location: 100-K-92



Analytical Data Package Prepared For
Washington Closure Hanford



Radiochemical Analysis By
TestAmerica

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 21 Pages

Report No.: 47857

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
JP0254	RC-225	J1KN18	J1H040507-1	MLEM11AA	9MLEM110	1217087
		J1KN19	J1H040507-2	MLEM21AA	9MLEM210	1217087

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

August 10, 2011

Attention: Joan Kessner

SAF Number	:	RC-225
Date SDG Closed	:	August 3, 2011
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	JP0254
Data Deliverable	:	7- Day / Summary

CASE NARRATIVE

I. Introduction

On August 3, 2011 two soil samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID number 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>
J1KN18	MLEM1	SOIL	8/3/11
J1KN19	MLEM2	SOIL	8/3/11

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:

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001

Washington Closure Hanford
August 10, 2011

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

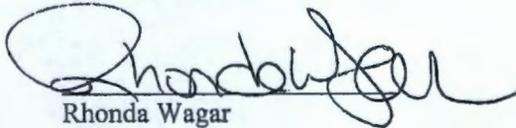
Gamma Spectroscopy

Gamma Spec by method RL-GAM-001:

The CRDL was not met for some of the analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1KN18) results are within contractual requirements.

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

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1, 2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation $(\text{Result}/\text{Expected})-1$ as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) u_c- Combined Uncertainty.	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c the combined uncertainty. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 10-Aug-11

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 47857

SDG No: JP0254

Batch	Client Id Work Order	Parameter	Result +/- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1217087 GAMMA_GS									
J1KN18									
	MLEM11AA	AMERICIUM 241	-1.18E-02 +- 3.8E-02	U	pCi/g		6.26E-02		
		CO-60	-6.27E-04 +- 2.2E-02	U	pCi/g		3.95E-02	5.00E-02	
		CS-137	-2.05E-03 +- 2.2E-02	U	pCi/g		3.81E-02	1.00E-01	
		EU-152	-4.83E-02 +- 5.5E-02	U	pCi/g		9.16E-02	1.00E-01	
		EU-154	1.56E-02 +- 6.6E-02	U	pCi/g		1.19E-01	1.00E-01	
		EU-155	7.18E-02 +- 5.2E-02	U	pCi/g		9.19E-02	1.00E-01	
J1KN18 DUP									
	MLEM11AC	AMERICIUM 241	-3.65E-02 +- 4.7E-02	U	pCi/g		7.85E-02		-102.4
		CO-60	-8.18E-03 +- 2.4E-02	U	pCi/g		4.01E-02	5.00E-02	-171.5
		CS-137	8.71E-03 +- 2.5E-02	U	pCi/g		4.49E-02	1.00E-01	323.1
		EU-152	-6.93E-02 +- 7.7E-02	U	pCi/g		1.12E-01	1.00E-01	-35.8
		EU-154	4.47E-02 +- 7.9E-02	U	pCi/g		1.44E-01	1.00E-01	96.5
		EU-155	2.96E-02 +- 6.7E-02	U	pCi/g		1.13E-01	1.00E-01	83.2
J1KN19									
	MLEM21AA	AMERICIUM 241	1.40E-01 +- 1.6E-01	U	pCi/g		2.77E-01		
		CO-60	1.09E-02 +- 1.9E-02	U	pCi/g		3.52E-02	5.00E-02	
		CS-137	1.78E-01 +- 4.2E-02		pCi/g		3.16E-02	1.00E-01	
		EU-152	-6.77E-03 +- 4.5E-02	U	pCi/g		7.75E-02	1.00E-01	
		EU-154	1.57E-02 +- 6.3E-02	U	pCi/g		1.11E-01	1.00E-01	
		EU-155	3.53E-02 +- 5.3E-02	U	pCi/g		9.07E-02	1.00E-01	

No. of Results: 18

TestAmerica

RPD - Relative Percent Difference.

rptSTLRchSaSummary2 V5.2.15
A2002

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdi, Total Uncert, CRDL, RDL or not identified by gamma scan software.

QC Results Summary
TestAmerica TARL
 Ordered by Method, Batch No, QC Type,.

Date: 10-Aug-11

Report No. : 47857

SDG No.: JP0254

Batch	Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA
GAMMA_GS									
1217087 BLANK QC,									
	MLFDT1AA	AMERICIUM 241	-3.68E-02 +- 4.3E-02	U	pCi/g				7.03E-02
		CO-60	9.09E-03 +- 9.9E-03	U	pCi/g				2.04E-02
		CS-137	7.44E-03 +- 1.1E-02	U	pCi/g				2.12E-02
		EU-152	1.18E-03 +- 3.7E-02	U	pCi/g				5.85E-02
		EU-154	3.26E-03 +- 3.2E-02	U	pCi/g				5.99E-02
		EU-155	-3.33E-02 +- 3.1E-02	U	pCi/g				5.08E-02
	1217087 LCS,								
	MLFDT1AC	CS-137	1.12E+00 +- 1.5E-01		pCi/g		104%	0.0	2.85E-02
No. of Results: 7									

TestAmerica
 rptSTLRchQcSummary V5.2.15
 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

Date: 10-Aug-11

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: JP0254

Collection Date: 8/3/2011 8:30:00 AM

Lot-Sample No.: J1H040507-1

Report No.: 47857

Received Date: 8/3/2011 4:40:00 PM

Client Sample ID: J1KN18

COC No.: RC-225-002

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1217087	GAMMA_GS				Work Order: MLEM11AA		Report DB ID: 9MLEM110					
AMERICIUM 241	-1.18E-02	U	3.8E-02	3.8E-02	6.26E-02	pCi/g		-0.19	8/9/11 12:59 a		328.1	GER15\$1
								-0.62			g	
CO-60	-6.27E-04	U	2.2E-02	2.2E-02	3.95E-02	pCi/g		-0.02	8/9/11 12:59 a		328.1	GER15\$1
							5.00E-02	-0.06			g	
CS-137	-2.05E-03	U	2.2E-02	2.2E-02	3.81E-02	pCi/g		-0.05	8/9/11 12:59 a		328.1	GER15\$1
							1.00E-01	-0.18			g	
EU-152	-4.83E-02	U	5.5E-02	5.5E-02	9.16E-02	pCi/g		-0.53	8/9/11 12:59 a		328.1	GER15\$1
							1.00E-01	-(1.7)			g	
EU-154	1.56E-02	U	6.6E-02	6.6E-02	1.19E-01	pCi/g		0.13	8/9/11 12:59 a		328.1	GER15\$1
							1.00E-01	0.47			g	
EU-155	7.18E-02	U	5.2E-02	5.2E-02	9.19E-02	pCi/g		0.78	8/9/11 12:59 a		328.1	GER15\$1
							1.00E-01	(2.8)			g	

No. of Results: 6 Comments:

FORM I

Date: 10-Aug-11

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: JP0254

Collection Date: 8/3/2011 9:00:00 AM

Lot-Sample No.: J1H040507-2

Report No.: 47857

Received Date: 8/3/2011 4:40:00 PM

Client Sample ID: J1KN19

COC No.: RC-225-002

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1217087	GAMMA_GS				Work Order: MLEM21AA		Report DB ID: 9MLEM210					
AMERICIUM 241	1.40E-01	U	1.6E-01	1.6E-01	2.77E-01	pCi/g		0.5 (1.7)	8/9/11 01:33 a	369.8	g	GER13\$1
CO-60	1.09E-02	U	1.9E-02	1.9E-02	3.52E-02	pCi/g	5.00E-02	0.31 (1.1)	8/9/11 01:33 a	369.8	g	GER13\$1
CS-137	1.78E-01		4.2E-02	4.2E-02	3.16E-02	pCi/g	1.00E-01	(5.6) (8.5)	8/9/11 01:33 a	369.8	g	GER13\$1
EU-152	-6.77E-03	U	4.5E-02	4.5E-02	7.75E-02	pCi/g	1.00E-01	-0.09 -0.3	8/9/11 01:33 a	369.8	g	GER13\$1
EU-154	1.57E-02	U	6.3E-02	6.3E-02	1.11E-01	pCi/g	1.00E-01	0.14 0.5	8/9/11 01:33 a	369.8	g	GER13\$1
EU-155	3.53E-02	U	5.3E-02	5.3E-02	9.07E-02	pCi/g	1.00E-01	0.39 (1.3)	8/9/11 01:33 a	369.8	g	GER13\$1

No. of Results: 6

Comments:

FORM II

Date: 10-Aug-11

DUPLICATE RESULTS

Lab Name: TestAmerica
 Lot-Sample No.: J1H040507-1
 Client Sample ID: J1KN18 DUP

SDG: JP0254
 Report No.: 47857
 COC No.: RC-225-002

Collection Date: 8/3/2011 8:30:00 AM
 Received Date: 8/3/2011 4:40:00 PM
 Matrix: SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1217087	GAMMA_GS		Work Order: MLEM11AC		Report DB ID: MLEM11CR		Orig Sa DB ID: 9MLEM110					
AMERICIUM 241	-3.65E-02	U	4.7E-02	4.7E-02	7.85E-02	pCi/g		-0.46	8/9/11 01:33 a		345.4	GER14\$1
	-1.18E-02	U	RPD -102.4					-(1.5)			g	
CO-60	-8.18E-03	U	2.4E-02	2.4E-02	4.01E-02	pCi/g		-0.2	8/9/11 01:33 a		345.4	GER14\$1
	-6.27E-04	U	RPD -171.5			5.00E-02		-0.69			g	
CS-137	8.71E-03	U	2.5E-02	2.5E-02	4.49E-02	pCi/g		0.19	8/9/11 01:33 a		345.4	GER14\$1
	-2.05E-03	U	RPD 323.1			1.00E-01		0.69			g	
EU-152	-6.93E-02	U	7.7E-02	7.7E-02	1.12E-01	pCi/g		-0.62	8/9/11 01:33 a		345.4	GER14\$1
	-4.83E-02	U	RPD -35.8			1.00E-01		-(1.8)			g	
EU-154	4.47E-02	U	7.9E-02	7.9E-02	1.44E-01	pCi/g		0.31	8/9/11 01:33 a		345.4	GER14\$1
	1.56E-02	U	RPD 96.5			1.00E-01		(1.1)			g	
EU-155	2.96E-02	U	6.7E-02	6.7E-02	1.13E-01	pCi/g		0.26	8/9/11 01:33 a		345.4	GER14\$1
	7.18E-02	U	RPD 83.2			1.00E-01		0.88			g	

No. of Results: 6 Comments:

TestAmerica

RPD - Relative Percent Difference.

rptSTLRchDupV5.2
 .15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II
BLANK RESULTS

Date: 10-Aug-11

Lab Name: TestAmerica
Matrix: SOIL

SDG: JP0254
Report No. : 47857

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1217087	GAMMA_GS				Work Order: MLFDT1AA			Report DB ID: MLFDT1AB				
AMERICIUM 241	-3.68E-02	U	4.3E-02	4.3E-02	7.03E-02	pCi/g		-0.52 -(1.7)	8/9/11 01:33 a	348.0	g	GER10\$1
CO-60	9.09E-03	U	9.9E-03	9.9E-03	2.04E-02	pCi/g		0.44 (1.8)	8/9/11 01:33 a	348.0	g	GER10\$1
CS-137	7.44E-03	U	1.1E-02	1.1E-02	2.12E-02	pCi/g		0.35 (1.3)	8/9/11 01:33 a	348.0	g	GER10\$1
EU-152	1.18E-03	U	3.7E-02	3.7E-02	5.85E-02	pCi/g		0.02 0.06	8/9/11 01:33 a	348.0	g	GER10\$1
EU-154	3.26E-03	U	3.2E-02	3.2E-02	5.99E-02	pCi/g		0.05 0.2	8/9/11 01:33 a	348.0	g	GER10\$1
EU-155	-3.33E-02	U	3.1E-02	3.1E-02	5.08E-02	pCi/g		-0.65 -(2.1)	8/9/11 01:33 a	348.0	g	GER10\$1

No. of Results: 6 Comments:

FORM II
LCS RESULTS

Date: 10-Aug-11

Lab Name: TestAmerica

SDG: JP0254

Matrix: SOIL

Report No. : 47857

Parameter	Result	Count Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1217087	GAMMA_GS					Work Order: MLFDT1AC		Report DB ID: MLFDT1CS					
CS-137	1.12E+00		1.5E-01	1.5E-01	2.85E-02	pCi/g		1.08E+00	1.1E-02	104%	8/9/11 01:34 a	350.1	GER11\$1
							Rec Limits:	70	130	0.0		g	

No. of Results: 1 Comments:

TestAmerica Laboratories, Inc.

12

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.2.15 A2002

Lot No., Due Date: J1H040507; 08/10/2011
 Client, Site: 127642; S00X235B00 HANFORD
 QC Batch No., Method Test: 1217087; RGAMMA Gamma by GER
 SDG, Matrix: JP0254; SOIL

- 1.0 COC**
 1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A ✓
- 2.0 QC Batch**
 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A ✓
 2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A ✓
 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A ✓
 2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A ✓
- 3.0 QC & Samples**
 3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A ✓
 3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A ✓
 3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A ✓
 3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A ✓
 3.5 Are the sample yields and MDAs within contract limits? Yes No N/A ✓
- 4.0 Raw Data**
 4.1 Were results calculated in the correct units? Yes No N/A ✓
 4.2 Were analysis volumes entered correctly? Yes No N/A ✓
 4.3 Were Yields entered correctly? Yes No N/A ✓
 4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A ✓
 4.5 Were raw counts reviewed for anomalies? Yes No N/A ✓
- 5.0 Other**
 5.1 Are all nonconformances included and noted? Yes No N/A ✓
 5.2 Are all required forms filled out? Yes No N/A ✓
 5.3 Was the correct methodology used? Yes No N/A ✓
 5.4 Was transcription checked? Yes No N/A ✓
 5.5 Were all calculations checked at a minimum frequency? Yes No N/A ✓
 5.6 Are worksheet entries complete and correct? Yes No N/A ✓
- 6.0 Comments on any No response:
 Please see NCM # 10018957

First Level *John Roberts* Date *8-9-11*

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1217087

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓	✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?	✓		✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: QEDL = 0.1 pCi/g
See NCR # 10-18957

Second Level Review: [Signature] Date: 8/10/11

Clouseau Nonconformance Memo



NCM #: 10-18957 NCM Initiated By: John Norton Date Opened: 08/09/2011 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Counting Tests: Gamma by GER Lot #'s (Sample #'s): J1H040507 (1,2), J1H050000 (87), QC Batches: 1217087,
Nonconformance: MDA not met Subcategory: Data accepted	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	08/09/2011	These samples did not meet the CRDL.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	08/09/2011	Due to the priority nature of the samples the data will be presented to the client, the samples can be re-counted for a longer time frame at client request.

Client Notification Summary

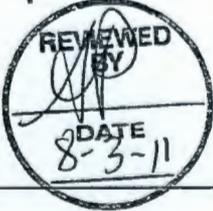
<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
			This section not yet completed by QA.

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-225-002		Page 1 of 1		
Collector Murrow, WR		Company Contact Jen Russell		Telephone No. (509) 380-8093		Project Coordinator KESSNER, JH		Price Code 8B Data Turnaround 7 Days		
Project Designation 100K Remaining Waste Sites - Soil, In-Process		Sampling Location 100-K-92		SAF No. RC-225						
Ice Chest No. NA		Field Logbook No. EL-1651-01		COA 010K922600		Method of Shipment Hand Deliver				
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. NA		Bill of Lading/Air Bill No. NA						
POSSIBLE SAMPLE HAZARDS/REMARKS										
None										
Special Handling and/or Storage Cooling None A# 8-3-11										
Preservation				None	Freeze	None				
Type of Container				G/P	Gs*	G/P				
No. of Container(s)				1	3	1				
Volume				60mL	40mL	1000mL				
SDG# JP0254 SAMPLE ANALYSIS Lot# J1H040507				pH (Soil) - 9045 (pH Measurement)	VOA - 5035/8260 (TCL)	See item (1) in Special Instructions.				
Sample No.	Matrix *	Sample Date	Sample Time							
J1KN18	SOIL	8-3-11	0830			X	MLEM1		1	
J1KN19	SOIL	8-3-11	0900			X	MLEM2		2	
CHAIN OF POSSESSION		Sign/Print Names			SPECIAL INSTRUCTIONS					Matrix *
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	(1) Gamma Spec (Client List) (Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155)						S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Time Wf=Wipe L=Liquid V=Vegetation X=Other
W. Ross Murrow	8-3-11 1010	Jen Russell	8-3-11 1010	Trans ship from RCF to TARC JR 8/2/11						JP0254
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time							
Jen Russell	8-3-11 1115	A. Freier	8-3-11 1115							
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time							
A. Freier	8-3-11 1640	J. Box	8-3-11 1640							
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time							
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time							
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						

Sample Check-in List

Date/Time Received: 8-3-11 1640 GM Screen Result: (Airlock) .02 Initials [P]
(Sample Receiving) .04 Initials [P]

Client: WCH SDG #: JPO254 NA [] SAF #: RC-225 NA []

Lot Number: JIH 040507

Chain of Custody # RC-225-002

Shipping Container ID: hand deliv. NA [P]

Samples received inside shipping container/cooler/box Yes [P]] 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 [P]
- 2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [P]
- 3. Cooler temperature: on ice °C NA [P]
secs/ds/11
- 4. Vermiculite/packing materials is NA [P] Wet [] Dry []

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [P]] No []
- 6. Number of samples received (Each sample may contain multiple bottles): 2
- 7. Containers received: 2 x LP

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

9. Samples have:
[P] tape [P] hazard labels
[P] custody seals [P] appropriate sample labels

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

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

12. Sample pH appropriate for analysis requested Yes [] No [] NA [P]
(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: N/A

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

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

8/6/2011 11:34:04 AM

Sample Preparation/Analysis

Balance Id:1120421763

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/10/2011

Sep1 DT/Tm Tech:

Batch: 1217087 SOIL pCi/g
SEQ Batch, Test: None

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments: *
1 MLEM1-1-AA J1H040507-1-SAMP 08/03/2011 08:30			328.10g,in	328.10g			5200 200	615	0419	8/9/11	
2 MLEM1-1-AC-X J1H040507-1-DUP 08/03/2011 08:30			345.40g,in	345.40g				614	0453		
3 MLEM2-1-AA J1H040507-2-SAMP 08/03/2011 09:00			369.80g,in	369.80g				613	0453		
4 MLFDT-1-AA-B J1H050000-87-BLK 08/05/2011 13:16 pd			348.00g,in	348.00g				610	0453		
5 MLFDT-1-AC-C J1H050000-87-LCS 08/05/2011 13:16 pd			350.10g,in	350.10g	QC20009 08/04/09,pd 09/01/09,r			611	0454		

Comments:

All Clients for Batch:

127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MLEM11AA-SAMP Constituent List:

Co-60 RDL:5.00E-02 pCi/g LCL: UCL: RPD: Cs-137 RDL:1.00E-01 pCi/g LCL:70 UCL:130 RPD:35

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 5

Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.55

TestAmerica Laboratories, Inc.

19

8/6/2011 11:34:05 AM

Sample Preparation/Analysis

Balance Id:1120421763

AX Gamma Prp PRP003/GAM001
 TA Gamma by HPGE
 SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/10/2011

Sep1 DT/Tm Tech:

Batch: 1217087

pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BouslaughP



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
MLFDT1AA-BLK:											
Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
MLFDT1AC-LCS:											
Cs-137	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35	Cs-137DA	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
K-40	RDL:--	pCi/g	LCL:70	UCL:130	RPD:35	Ra-226	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
RA-228	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35	RA-228DA	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35
U-238	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						
MLEM11AA-SAMP Calc Info:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
MLFDT1AA-BLK:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
MLFDT1AC-LCS:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			

TestAmerica Laboratories, Inc.

20

8/9/2011 1:54:24 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/9/2010, 8/14/2011, Batch: '1217087', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
1217087				
AC	Rev1C	BouslaughP	8/6/2011 11:13:48	
SC		mcginnist	IsBatched	8/5/2011 1:19:42 PM
SC		BouslaughP	InPrep	8/6/2011 11:13:48 AM
SC		BouslaughP	Prep1C	8/6/2011 11:48:34 AM
SC		BlackCL	InCnt1	8/7/2011 4:06:51 AM
SC		nortonj	Rev1C	8/9/2011 1:54:13 PM
AC		BouslaughP	8/6/2011 11:48:34	ICOC_RADCALC v4.8.49
AC		BlackCL	8/7/2011 4:06:51 AM	RL-GAM-001 REVISION 1
AC		nortonj	8/9/2011 1:54:13 PM	RL-GAM-001 REVISION 1
				RL-CI-007 REVISION 1
				RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

ANALYTICAL REPORT

Job Number: 280-18789-1

SDG Number: JP0254

Job Description: SAF# RC-225

For:

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner



Approved for release.
Michael T Dedio
Project Mgmt. Assistant
8/10/2011 6:31 PM

Designee for
Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
08/10/2011

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 E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

Cover Title Page	1
Report Narrative	3
Data Qualifiers	4
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
QC Results	15
Qc Association Summary	16
Qc Reports	17
Client Chain of Custody	25
Sample Receipt Checklist	26

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-18789-1

SDG #: JP0254

SAF#: RC-225

Date SDG Closed: August 4, 2011

Data Deliverable: 7 Day / Summary

<u>CLIENT ID</u>	<u>LAB ID</u>	<u>ANALYSES REQUESTED</u>	<u>ANALYSES PERFORMED</u>
J1KN18	280-18789-1	9045/8260	9045C/8260B
J1KN19	280-18789-2	9045/8260	9045C/8260B

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 8/4/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was -0.1 C.

GC/MS VOLATILES - SW846 8260B

Low levels of Carbon disulfide are present in the method blank associated with batch 280-79997. Because the concentrations in the method blank are not present at levels 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".

All TerraCore vials received for samples J1KN18 and J1KN19 contained 8 to 10 grams of sample, greatly exceeding the method requirement of 5g.

The MS/MSD performed on sample J1KN18 exhibited spike compound recoveries and RPD data outside the control limits, and the associated sample results have been flagged "T". In addition, surrogate 4-Bromofluorobenzene in the Matrix Spike was recovered outside the control limits, biased high. 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.

GENERAL CHEMISTRY - SW846 9045C - PH

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	Surrogate exceeds the control limit

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS) Closed System Purge and Trap	TAL DEN	SW846 8260B	SW846 5035
pH Deionized Water Leaching Procedure	TAL DEN	SW846 9045C	ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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: 280-18789-1

Sdg Number: JP0254

Method	Analyst	Analyst ID
SW846 8260B	Reinhardt, Jason	JR
SW846 9045C	Woolley, Mark	MW
ASTM D-2216	Doherty, Jillian A	JAD

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-18789-1	J1KN18	Solid	08/03/2011 0830	08/04/2011 0900
280-18789-2	J1KN19	Solid	08/03/2011 0900	08/04/2011 0900

SAMPLE RESULTS

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Client Sample ID: J1KN18

Lab Sample ID: 280-18789-1

Date Sampled: 08/03/2011 0830

Client Matrix: Solid

% Moisture: 0.3

Date Received: 08/04/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-80513	Instrument ID: MSV_G	
Prep Method: 5035	Prep Batch: 280-79997	Lab File ID: G7070.D	
Dilution: 1.0		Initial Weight/Volume: 8.282 g	
Analysis Date: 08/09/2011 1241		Final Weight/Volume: 5 mL	
Prep Date: 08/05/2011 0859			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		59		3.3	12
Benzene		0.28	UT	0.28	3.0
Bromodichloromethane		0.13	UT	0.13	3.0
Bromoform		0.14	UT	0.14	3.0
Bromomethane		0.30	U	0.30	6.1
2-Butanone (MEK)		4.7	J	1.1	6.1
Carbon disulfide		0.25	U	0.25	3.0
Carbon tetrachloride		0.38	UT	0.38	3.0
Chlorobenzene		0.33	UT	0.33	3.0
Dibromochloromethane		0.35	UT	0.35	3.0
Chloroethane		0.54	U	0.54	6.1
Chloroform		0.18	UT	0.18	3.0
Chloromethane		0.47	U	0.47	6.1
1,1-Dichloroethane		0.13	U	0.13	3.0
1,2-Dichloroethane		0.42	U	0.42	3.0
1,1-Dichloroethene		0.36	UT	0.36	3.0
1,2-Dichloroethene, Total		0.24	UT	0.24	3.0
1,2-Dichloropropane		0.33	UT	0.33	3.0
cis-1,3-Dichloropropene		0.78	UT	0.78	3.0
trans-1,3-Dichloropropene		0.41	UT	0.41	3.0
Ethylbenzene		0.41	UT	0.41	3.0
2-Hexanone		3.0	UT	3.0	12
Methylene Chloride		0.45	U	0.45	3.0
4-Methyl-2-pentanone (MIBK)		2.6	U	2.6	6.1
Styrene		0.38	UT	0.38	3.0
1,1,2,2-Tetrachloroethane		0.37	UT	0.37	3.0
Tetrachloroethene		0.36	UT	0.36	3.0
Toluene		0.42	UT	0.42	3.0
1,1,1-Trichloroethane		0.31	UT	0.31	3.0
1,1,2-Trichloroethane		0.53	UT	0.53	3.0
Trichloroethene		0.14	UT	0.14	3.0
Vinyl chloride		0.81	U	0.81	3.0
Xylenes, Total		0.37	UT	0.37	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		58 - 140
Toluene-d8 (Surr)	109		80 - 126
4-Bromofluorobenzene (Surr)	115		76 - 127
Dibromofluoromethane (Surr)	102		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Client Sample ID: J1KN18

Lab Sample ID: 280-18789-1

Date Sampled: 08/03/2011 0830

Client Matrix: Solid

% Moisture: 0.3

Date Received: 08/04/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 280-80513

Instrument ID: MSV_G

Prep Method: 5035

Prep Batch: 280-79997

Lab File ID: G7070.D

Dilution: 1.0

Initial Weight/Volume: 8.282 g

Analysis Date: 08/09/2011 1241

Final Weight/Volume: 5 mL

Prep Date: 08/05/2011 0859

Tentatively Identified Compounds

Number TIC's Found: 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Client Sample ID: J1KN19

Lab Sample ID: 280-18789-2

Date Sampled: 08/03/2011 0900

Client Matrix: Solid

% Moisture: 2.9

Date Received: 08/04/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-80513	Instrument ID: MSV_G	
Prep Method: 5035	Prep Batch: 280-79997	Lab File ID: G7071.D	
Dilution: 1.0		Initial Weight/Volume: 10.281 g	
Analysis Date: 08/09/2011 1302		Final Weight/Volume: 5 mL	
Prep Date: 08/05/2011 0859			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		16		2.7	10
Benzene		0.24	U	0.24	2.5
Bromodichloromethane		0.11	U	0.11	2.5
Bromoform		0.12	U	0.12	2.5
Bromomethane		0.25	U	0.25	5.0
2-Butanone (MEK)		2.9	J	0.92	5.0
Carbon disulfide		0.21	U	0.21	2.5
Carbon tetrachloride		0.32	U	0.32	2.5
Chlorobenzene		0.27	U	0.27	2.5
Dibromochloromethane		0.29	U	0.29	2.5
Chloroethane		0.45	U	0.45	5.0
Chloroform		0.15	U	0.15	2.5
Chloromethane		0.39	U	0.39	5.0
1,1-Dichloroethane		0.11	U	0.11	2.5
1,2-Dichloroethane		0.35	U	0.35	2.5
1,1-Dichloroethene		0.30	U	0.30	2.5
1,2-Dichloroethene, Total		0.20	U	0.20	2.5
1,2-Dichloropropane		0.28	U	0.28	2.5
cis-1,3-Dichloropropene		0.65	U	0.65	2.5
trans-1,3-Dichloropropene		0.34	U	0.34	2.5
Ethylbenzene		0.34	U	0.34	2.5
2-Hexanone		2.5	U	2.5	10
Methylene Chloride		0.38	U	0.38	2.5
4-Methyl-2-pentanone (MIBK)		2.2	U	2.2	5.0
Styrene		0.32	U	0.32	2.5
1,1,2,2-Tetrachloroethane		0.31	U	0.31	2.5
Tetrachloroethene		0.30	U	0.30	2.5
Toluene		0.35	U	0.35	2.5
1,1,1-Trichloroethane		0.26	U	0.26	2.5
1,1,2-Trichloroethane		0.44	U	0.44	2.5
Trichloroethene		0.12	U	0.12	2.5
Vinyl chloride		0.67	U	0.67	2.5
Xylenes, Total		0.31	U	0.31	2.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		58 - 140
Toluene-d8 (Surr)	91		80 - 126
4-Bromofluorobenzene (Surr)	89		76 - 127
Dibromofluoromethane (Surr)	90		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Client Sample ID: J1KN19

Lab Sample ID: 280-18789-2

Date Sampled: 08/03/2011 0900

Client Matrix: Solid

% Moisture: 2.9

Date Received: 08/04/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 08/09/2011 1302
Prep Date: 08/05/2011 0859

Analysis Batch: 280-80513
Prep Batch: 280-79997

Instrument ID: MSV_G
Lab File ID: G7071.D
Initial Weight/Volume: 10.281 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
127-91-3	.beta.-Pinene	12.22	4.1	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

General Chemistry

Client Sample ID: J1KN18

Lab Sample ID: 280-18789-1

Date Sampled: 08/03/2011 0830

Client Matrix: Solid

Date Received: 08/04/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	5.62		SU	0.0100	0.0100	1.0	9045C
	Analysis Batch: 280-80035		Analysis Date: 08/04/2011 1649				DryWt Corrected: N
Percent Moisture	0.31		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-79915		Analysis Date: 08/04/2011 1615				DryWt Corrected: N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

General Chemistry

Client Sample ID: J1KN19

Lab Sample ID: 280-18789-2

Date Sampled: 08/03/2011 0900

Client Matrix: Solid

Date Received: 08/04/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	7.92		SU	0.0100	0.0100	1.0	9045C
	Analysis Batch: 280-80035		Analysis Date: 08/04/2011 1654				DryWt Corrected: N
Percent Moisture	2.9		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-79915		Analysis Date: 08/04/2011 1615				DryWt Corrected: N

QUALITY CONTROL RESULTS

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1
Sdg Number: JP0254

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-79997					
LCS 280-79997/3-A	Lab Control Sample	T	Solid	5035	
LCSD 280-79997/4-A	Lab Control Sample Duplicate	T	Solid	5035	
MB 280-79997/2-A	Method Blank	T	Solid	5035	
280-18789-1	J1KN18	T	Solid	5035	
280-18789-1MS	Matrix Spike	T	Solid	5035	
280-18789-1MSD	Matrix Spike Duplicate	T	Solid	5035	
280-18789-2	J1KN19	T	Solid	5035	
Analysis Batch:280-80513					
LCS 280-79997/3-A	Lab Control Sample	T	Solid	8260B	280-79997
LCSD 280-79997/4-A	Lab Control Sample Duplicate	T	Solid	8260B	280-79997
MB 280-79997/2-A	Method Blank	T	Solid	8260B	280-79997
280-18789-1	J1KN18	T	Solid	8260B	280-79997
280-18789-1MS	Matrix Spike	T	Solid	8260B	280-79997
280-18789-1MSD	Matrix Spike Duplicate	T	Solid	8260B	280-79997
280-18789-2	J1KN19	T	Solid	8260B	280-79997
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 280-79897					
280-18789-1	J1KN18	S	Solid	DI Leach	
280-18789-1DU	Duplicate	S	Solid	DI Leach	
280-18789-2	J1KN19	S	Solid	DI Leach	
Analysis Batch:280-79915					
280-18789-1	J1KN18	T	Solid	D-2216	
280-18789-1DU	Duplicate	T	Solid	D-2216	
280-18789-2	J1KN19	T	Solid	D-2216	
Analysis Batch:280-80035					
LCS 280-80035/4	Lab Control Sample	T	Water	9045C	
LCSD 280-80035/5	Lab Control Sample Duplicate	T	Water	9045C	
280-18789-1	J1KN18	S	Solid	9045C	
280-18789-1DU	Duplicate	S	Solid	9045C	
280-18789-2	J1KN19	S	Solid	9045C	
Report Basis					
S = Soluble					
T = Total					

TestAmerica Denver

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Method Blank - Batch: 280-79997

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 280-79997/2-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/09/2011 1219
Prep Date: 08/05/2011 0859
Leach Date: N/A

Analysis Batch: 280-80513
Prep Batch: 280-79997
Leach Batch: N/A
Units: ug/Kg

Instrument ID: MSV_G
Lab File ID: G7069.D
Initial Weight/Volume: 5.016 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	5.4	U	5.4	20
Benzene	0.47	U	0.47	5.0
Bromodichloromethane	0.22	U	0.22	5.0
Bromoform	0.23	U	0.23	5.0
Bromomethane	0.50	U	0.50	10
2-Butanone (MEK)	1.8	U	1.8	10
Carbon disulfide	0.885	J	0.42	5.0
Carbon tetrachloride	0.63	U	0.63	5.0
Chlorobenzene	0.54	U	0.54	5.0
Dibromochloromethane	0.57	U	0.57	5.0
Chloroethane	0.89	U	0.89	10
Chloroform	0.29	U	0.29	5.0
Chloromethane	0.77	U	0.77	10
1,1-Dichloroethane	0.21	U	0.21	5.0
1,2-Dichloroethane	0.70	U	0.70	5.0
1,1-Dichloroethene	0.59	U	0.59	5.0
1,2-Dichloroethene, Total	0.39	U	0.39	5.0
1,2-Dichloropropane	0.55	U	0.55	5.0
cis-1,3-Dichloropropene	1.3	U	1.3	5.0
trans-1,3-Dichloropropene	0.67	U	0.67	5.0
Ethylbenzene	0.67	U	0.67	5.0
2-Hexanone	4.9	U	4.9	20
Methylene Chloride	0.75	U	0.75	5.0
4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	10
Styrene	0.63	U	0.63	5.0
1,1,2,2-Tetrachloroethane	0.61	U	0.61	5.0
Tetrachloroethene	0.59	U	0.59	5.0
Toluene	0.69	U	0.69	5.0
1,1,1-Trichloroethane	0.52	U	0.52	5.0
1,1,2-Trichloroethane	0.88	U	0.88	5.0
Trichloroethene	0.23	U	0.23	5.0
Vinyl chloride	1.3	U	1.3	5.0
Xylenes, Total	0.61	U	0.61	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	58 - 140
Toluene-d8 (Surr)	96	80 - 126
4-Bromofluorobenzene (Surr)	90	76 - 127
Dibromofluoromethane (Surr)	89	75 - 121

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Method Blank TICs- Batch: 280-79997

Cas Number	Analyte	RT	Est. Result	Qual
1066-40-6	Silanol, trimethyl-	6.69	7.10	N J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Lab Control Sample/

Method: 8260B

Lab Control Sample Duplicate Recovery Report - Batch: 280-79997

Preparation: 5035

LCS Lab Sample ID: LCS 280-79997/3-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 0933
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: MSV_G
 Lab File ID: G7063.D
 Initial Weight/Volume: 5 g
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 280-79997/4-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 1108
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: MSV_G
 Lab File ID: G7067.D
 Initial Weight/Volume: 5.11 g
 Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Acetone	100	104	45 - 184	2	28		
Benzene	96	101	76 - 120	3	20		
Bromodichloromethane	97	102	74 - 125	4	20		
Bromoform	85	94	75 - 120	9	20		
Bromomethane	83	94	40 - 149	10	22		
2-Butanone (MEK)	116	120	58 - 150	2	32		
Carbon disulfide	80	111	49 - 121	30	24		
Carbon tetrachloride	99	103	69 - 147	2	20		
Chlorobenzene	90	95	74 - 120	2	20		
Dibromochloromethane	87	95	74 - 120	7	20		
Chloroethane	87	98	51 - 155	9	22		
Chloroform	98	103	77 - 125	2	20		
Chloromethane	74	83	47 - 148	9	25		
1,1-Dichloroethane	97	103	74 - 120	4	20		
1,2-Dichloroethane	102	109	62 - 142	5	20		
1,1-Dichloroethene	98	106	77 - 143	6	20		
1,2-Dichloroethene, Total	95	100	80 - 120	3	20		
1,2-Dichloropropane	92	98	74 - 120	4	20		
cis-1,3-Dichloropropene	96	101	77 - 120	3	20		
trans-1,3-Dichloropropene	96	102	71 - 120	4	20		
Ethylbenzene	89	94	78 - 120	3	20		
2-Hexanone	91	93	58 - 136	0	29		
Methylene Chloride	96	107	76 - 137	9	21		
4-Methyl-2-pentanone (MIBK)	102	105	62 - 130	1	25		
Styrene	87	95	77 - 120	6	20		
1,1,2,2-Tetrachloroethane	89	98	68 - 120	7	21		
Tetrachloroethene	95	98	71 - 120	1	20		
Toluene	96	101	72 - 120	2	20		
1,1,1-Trichloroethane	96	102	67 - 143	3	20		
1,1,2-Trichloroethane	99	104	69 - 120	3	20		
Trichloroethene	99	100	78 - 120	1	20		
Vinyl chloride	80	91	45 - 148	10	24		
Xylenes, Total	89	95	77 - 120	5	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	88	58 - 140

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	103	102	80 - 126
4-Bromofluorobenzene (Surr)	95	90	76 - 127
Dibromofluoromethane (Surr)	100	94	75 - 121

2

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-79997

Method: 8260B

Preparation: 5035

MS Lab Sample ID: 280-18789-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 1323
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A

Instrument ID: MSV_G
 Lab File ID: G7072.D
 Initial Weight/Volume: 10.89 g
 Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-18789-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 1345
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A

Instrument ID: MSV_G
 Lab File ID: G7073.D
 Initial Weight/Volume: 10.177 g
 Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Acetone	122	115	45 - 184	0	28		
Benzene	70	78	76 - 120	18	20	T	
Bromodichloromethane	66	71	74 - 125	14	20	T	T
Bromoform	44	49	75 - 120	16	20	T	T
Bromomethane	76	82	40 - 149	14	22		
2-Butanone (MEK)	88	71	58 - 150	13	32		
Carbon disulfide	74	85	49 - 121	20	24		
Carbon tetrachloride	57	67	69 - 147	23	20	T	T*
Chlorobenzene	49	59	74 - 120	26	20	T	T*
Dibromochloromethane	59	67	74 - 120	20	20	T	T
Chloroethane	77	84	51 - 155	16	22		
Chloroform	76	82	77 - 125	15	20	T	
Chloromethane	66	73	47 - 148	16	25		
1,1-Dichloroethane	79	82	74 - 120	11	20		
1,2-Dichloroethane	85	90	62 - 142	12	20		
1,1-Dichloroethane	75	85	77 - 143	19	20	T	
1,2-Dichloroethane, Total	76	81	80 - 120	13	20	T	
1,2-Dichloropropane	68	74	74 - 120	14	20	T	
cis-1,3-Dichloropropene	66	71	77 - 120	13	20	T	T
trans-1,3-Dichloropropene	62	66	71 - 120	13	20	T	T
Ethylbenzene	44	56	78 - 120	30	20	T	T*
2-Hexanone	66	45	58 - 136	32	29		T*
Methylene Chloride	93	99	76 - 137	13	21		
4-Methyl-2-pentanone (MIBK)	84	74	62 - 130	6	25		
Styrene	41	50	77 - 120	27	20	T	T*
1,1,2,2-Tetrachloroethane	66	81	68 - 120	28	21	T	*
Tetrachloroethene	47	59	71 - 120	30	20	T	T*
Toluene	55	66	72 - 120	26	20	T	T*
1,1,1-Trichloroethane	63	73	67 - 143	22	20	T	*
1,1,2-Trichloroethane	67	69	69 - 120	10	20	T	
Trichloroethene	58	68	78 - 120	23	20	T	T*
Vinyl chloride	68	71	45 - 148	11	24		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1

Sdg Number: JP0254

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-79997

Method: 8260B

Preparation: 5035

MS Lab Sample ID: 280-18789-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 1323
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A

Instrument ID: MSV_G
 Lab File ID: G7072.D
 Initial Weight/Volume: 10.89 g
 Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-18789-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 08/09/2011 1345
 Prep Date: 08/05/2011 0859
 Leach Date: N/A

Analysis Batch: 280-80513
 Prep Batch: 280-79997
 Leach Batch: N/A

Instrument ID: MSV_G
 Lab File ID: G7073.D
 Initial Weight/Volume: 10.177 g
 Final Weight/Volume: 5 mL

Analyte	% Rec		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Xylenes, Total	42	52	77 - 120	27	20	T	T*
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		107	95			58 - 140	
Toluene-d8 (Surr)		119	110			80 - 126	
4-Bromofluorobenzene (Surr)		129	* 125			76 - 127	
Dibromofluoromethane (Surr)		112	97			75 - 121	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1
Sdg Number: JP0254

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-80035**

**Method: 9045C
Preparation: N/A**

LCS Lab Sample ID: LCS 280-80035/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/04/2011 1645
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-80035
Prep Batch: N/A
Leach Batch: N/A
Units: SU

Instrument ID: WC_Orion 3 Star
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-80035/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/04/2011 1647
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-80035
Prep Batch: N/A
Leach Batch: N/A
Units: SU

Instrument ID: WC_Orion 3 Star
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
pH adj. to 25 deg C-Soluble	100	100	97 - 103	0	5		

Duplicate - Batch: 280-80035

**Method: 9045C
Preparation: N/A**

Lab Sample ID: 280-18789-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/04/2011 1651
Prep Date: N/A
Leach Date: 08/04/2011 1515

Analysis Batch: 280-80035
Prep Batch: N/A
Leach Batch: 280-79897
Units: SU

Instrument ID: WC_Orion 3 Star
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	5.62	5.580	0.7	5	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-18789-1
Sdg Number: JP0254

Duplicate - Batch: 280-79915

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-18789-1	Analysis Batch:	280-79915	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/04/2011 1615	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	0.31	0.36	16	20	

no. 1 or 2 form

Washington Closure Hanford			CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-225-002	Page 1 of 1
Collector Murrow, WR		Company Contact Jen Russell		Telephone No. (509) 380-8093		Project Coordinator KESSNER, JH		Price Code 8B	Data Turnaround 7 Days
Project Designation 100K Remaining Waste Sites - Soil, In-Process			Sampling Location 100-K-92			SAF No. RC-225			
Ice Chest No. WCH-11-033		Field Logbook No. EL-1651-01		COA 010K922600		Method of Shipment FedEx			
Shipped To TestAmerica Incorporated, Richland Denver			Offsite Property No. A100830			Bill of Lading/Air Bill No. See OSPC			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>				Preservation	None	Freeze	None		
Special Handling and/or Storage <i>Cool 4C</i>				Type of Container	G/P	Gs*	G/P		
				No. of Container(s)	1	9	1		
				Volume	68mL * 8/3/11	40mL *	1000mL		
SAMPLE ANALYSIS				pH (Soil) - 9045 (pH Measurement)	VOA - 5035/8260 (TCL) **	See item (1) in Special Instructions.			
Sample No.	Matrix *	Sample Date	Sample Time						
J1KN18	SOIL	8-3-11	0830	X	X			1	
J1KN19	SOIL	8-3-11	0900	X	X			2	
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>W. Ros - Museum</i>		Date/Time <i>8-3-11 1010</i>	Received By/Store In <i>Jen Russell</i>		Date/Time <i>8-3-11 1010</i>	(1) Gamma Spec (Client List) (Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) *Additional volume has been provided for QC purposes. ** Freeze upon receipt AP 8-3-11 VOA Samples Frozen Upon Collection JP0254			
Relinquished By/Removed From <i>Jen Russell</i>		Date/Time <i>8-3-11 1115</i>	Received By/Store In <i>Fed Ex</i>		Date/Time <i>8/4/11 900</i>				
Relinquished By/Removed From		Date/Time	Received By/Store In		Date/Time				
Relinquished By/Removed From		Date/Time	Received By/Store In		Date/Time				
Relinquished By/Removed From		Date/Time	Received By/Store In		Date/Time				
LABORATORY SECTION	Received By		Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time			

Page 25 of 27

Analytical Due:

Report Due: 8/11/11 (Rush SAT)

Sample Check-in List

Date/Time Received: 8/4/11 900 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: 5P0254 NA [] SAF #: RC-225 NA []

Job Number: 18789 Chain of Custody # RC-225-002

Shipping Container ID: WCH-11-033 Air Bill # 795042970213

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: -0.1 NA []
5. Vermiculite/packing materials is NA [] Wet [] Dry
6. Number of samples in shipping container: 2
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 HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: _____ Date: 8/4/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager [Signature] Date 8/5/11

From: (509) 376-7768
1182 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA



J11201104290225

Ship Date: 03AUG11
ActWgt: 50.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code



SHIP TO: (303) 736-0100

BILL THIRD PARTY

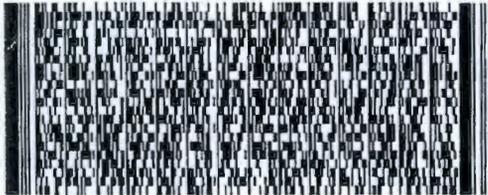
KAE YODER
TEST AMERICA
4955 YARROW ST # A100827

ARVADA, CO 80002

Ref # 010K922600
Invoice #
PO #
Dept #

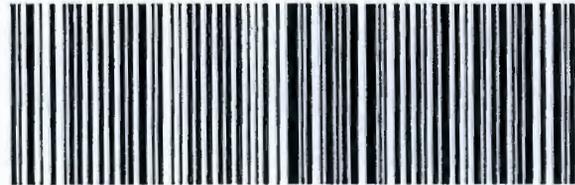
THU - 04 AUG A1
PRIORITY OVERNIGHT

TRK# 7950 4297 0213
0201



XH WHHA

80002
CO-US
DEN



50FG1/EEET/PSF4

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