0096109

SAF-RC-073
100-D/DR Burial Grounds & Remaining Sites – Other In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 4/25/11
INITIAL/DATE

COMMENTS:

SDG JP0154 SAF RC-073

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

RECEIVED
MAY 11 2011
EDMC

Waste Site: 600-30 (100D-AN-08-042)

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 30 *Pages*

Report No.: 46239

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.
JP0154	RC-073	J1H078	J1D070418-1	MGNE71AD	9MGNE710	1097358
		J1H078	J1D070418-1	MGNE71AA	9MGNE710	1097359
		J1H078	J1D070418-1	MGNE71AC	9MGNE710	1097361

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

April 18, 2011

Attention: Joan Kessner

SAF Number	:	RC-073
Date SDG Closed	:	April 6, 2011
Number of Samples	:	One (1)
Sample Type	:	Other
SDG Number	:	JP0154
Data Deliverable	:	7-- Day / Summary

CASE NARRATIVE

I. Introduction

On April 6, 2011 one sample was received at TestAmerica for radiochemical analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1H078	MGNE7	OTHER	04/06/11

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:

Gas Proportional Counting
Gross Alpha by method RL-GPC-001
Gross Beta by method RL-GPC-001
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001

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

Gas Proportional Counting

Gross Alpha by method RL-GPC-001:
The LCS, batch blank, samples and sample duplicate (J1H078) results are within contractual requirements.

Gross Beta by method RL-GPC-001:
The LCS, batch blank, samples and sample duplicate (J1H078) results are within contractual requirements.

Gamma Spec by method RL-GAM-001 :
There was insufficient volume for a duplicate. Sample J1H078 was recounted on a different detector for the duplicate (J J1H078 DUP). The CRDL was not met on some analytes due to reduced count time. The count time was reduced to meet the priority turn around time. Except as noted, the LCS, batch blank, sample and sample duplicate (J1H078) 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 = 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/?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 (Result/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 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * 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 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * 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)/[sqrt($TPUs^2$ + $TPUd^2$)] 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: 18-Apr-11

TestAmerica TARL

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

Report No. : 46239

SDG No: JP0154

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1097358 GAMMA_GS									
J1H078									
	MGNE71AD	AMERICIUM 241	-1.38E-02 +- 1.6E-01	U	pCi/g		2.59E-01		
		CO-60	-1.30E-01 +- 1.2E-01	U	pCi/g		1.93E-01	5.00E-02	
		CS-137	7.83E-02 +- 1.2E-01	U	pCi/g		2.13E-01	1.00E-01	
		EU-152	3.03E-01 +- 3.2E-01	U	pCi/g		5.49E-01	1.00E-01	
		EU-154	9.43E-02 +- 3.1E-01	U	pCi/g		5.95E-01	1.00E-01	
		EU-155	5.12E-02 +- 2.3E-01	U	pCi/g		3.92E-01	1.00E-01	
J1H078 DUP									
	MGNE71AE	AMERICIUM 241	-2.33E-01 +- 6.6E-01	U	pCi/g		1.09E+00		-177.6
		CO-60	-4.95E-02 +- 1.1E-01	U	pCi/g		1.81E-01	5.00E-02	-89.6
		CS-137	7.39E-03 +- 9.6E-02	U	pCi/g		1.66E-01	1.00E-01	165.5
		EU-152	-2.88E-02 +- 2.2E-01	U	pCi/g		3.64E-01	1.00E-01	242.0
		EU-154	-9.09E-02 +- 2.9E-01	U	pCi/g		4.92E-01	1.00E-01	10993.2
		EU-155	-5.24E-02 +- 1.9E-01	U	pCi/g		3.27E-01	1.00E-01	-18023.0
1097359 9310_ALPHABETA_GPC									
J1H078									
	MGNE71AA	ALPHA	4.01E+00 +- 3.5E+00	U	pCi/g	100%	5.56E+00	1.00E+01	
J1H078 DUP									
	MGNE71AF	ALPHA	2.93E+00 +- 3.0E+00	U	pCi/g	100%	4.91E+00	1.00E+01	31.2
1097361 9310_ALPHABETA_GPC									
J1H078									
	MGNE71AC	BETA	4.66E+00 +- 2.6E+00	U	pCi/g	100%	4.79E+00	1.50E+01	
J1H078 DUP									
	MGNE71AG	BETA	9.23E+00 +- 3.1E+00		pCi/g	100%	4.73E+00	1.50E+01	65.7

No. of Results: 16

TestAmerica
rptSTLRchSaSummary2 V5.2.12
A2002

RPD - Relative Percent Difference.

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.

QC Results Summary

Date: 18-Apr-11

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 46239

SDG No.: JP0154

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
GAMMA_GS								
1097358 BLANK QC,								
MGPHN1AA	AMERICIUM 241	-4.22E-03 +- 9.5E-02	U	pCi/g				1.60E-01
	CO-60	-3.55E-02 +- 4.9E-02	U	pCi/g				7.94E-02
	CS-137	-1.42E-02 +- 4.4E-02	U	pCi/g				7.55E-02
	EU-152	4.46E-02 +- 1.0E-01	U	pCi/g				1.90E-01
	EU-154	4.57E-02 +- 1.1E-01	U	pCi/g				2.27E-01
	EU-155	-3.13E-02 +- 8.1E-02	U	pCi/g				1.37E-01
1097358 LCS,								
MGPHN1AC	AMERICIUM 241	4.17E+01 +- 5.0E+00		pCi/g		104%	0.0	5.53E-01
	CO-60	1.80E+01 +- 3.6E+00		pCi/g		92%	-0.1	1.37E-01
	CS-137	4.35E+01 +- 6.0E+00		pCi/g		99%	0.0	1.94E-01
9310_ALPHABETA_GPC								
1097359 BLANK QC,								
MGPHT1AA	ALPHA	7.11E-01 +- 9.9E-01	U	pCi/g	100%			1.71E+00
1097359 LCS,								
MGPHT1AC	ALPHA	9.01E+01 +- 2.0E+01		pCi/g	100%	98%	0.0	2.11E+00
9310_ALPHABETA_GPC								
1097361 BLANK QC,								
MGPH11AA	BETA	7.03E-02 +- 1.5E+00	U	pCi/g	100%			3.62E+00
1097361 LCS,								
MGPH11AC	BETA	6.79E+01 +- 1.0E+01		pCi/g	100%	99%	0.0	4.22E+00

No. of Results: 13

TestAmerica
rptSTLRchQcSummary V5.2.12
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

SAMPLE RESULTS

Date: 18-Apr-11

Lab Name:	TestAmerica	SDG:	JP0154	Collection Date:	4/1/2011 11:20:00 AM
Lot-Sample No.:	J1D070418-1	Report No. :	46239	Received Date:	4/6/2011 3:20:00 PM
Client Sample ID:	J1H078	COC No. :	RC-073-134	Matrix:	OTHER OTHERSOLID

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: 1097358	GAMMA_GS			Work Order:	MGNE71AD		Report DB ID:	9MGNE710				
AMERICIUM 241	***-1.38E-02***	U	1.6E-01	1.6E-01	2.59E-01	pCi/g		*-0.05*	4/13/11 06:46 a		20.6	GER5$1
								-0.18			g	
CO-60	***-1.30E-01***	U	1.2E-01	1.2E-01	1.93E-01	pCi/g		*-0.67*	4/13/11 06:46 a		20.6	GER5$1
							5.00E-02	*-(2.1)*			g	
CS-137	***7.83E-02***	U	1.2E-01	1.2E-01	2.13E-01	pCi/g		*0.37*	4/13/11 06:46 a		20.6	GER5$1
							1.00E-01	*(1.4)*			g	
EU-152	***3.03E-01***	U	3.2E-01	3.2E-01	5.49E-01	pCi/g		*0.55*	4/13/11 06:46 a		20.6	GER5$1
							1.00E-01	*(1.9)*			g	
EU-154	***9.43E-02***	U	3.1E-01	3.1E-01	5.95E-01	pCi/g		*0.16*	4/13/11 06:46 a		20.6	GER5$1
							1.00E-01	*0.61*			g	
EU-155	***5.12E-02***	U	2.3E-01	2.3E-01	3.92E-01	pCi/g		*0.13*	4/13/11 06:46 a		20.6	GER5$1
							1.00E-01	*0.45*			g	
Batch: 1097359	9310_ALPHABETA_GPC			Work Order:	MGNE71AA		Report DB ID:	9MGNE710				
ALPHA	***4.01E+00***	U	3.4E+00	3.5E+00	5.56E+00	pCi/g	100%	*0.72*	4/15/11 09:56 a		0.0505	GPC10C
						2.27E+00	1.00E+01	*(2.3)*			g	
Batch: 1097361	9310_ALPHABETA_GPC			Work Order:	MGNE71AC		Report DB ID:	9MGNE710				
BETA	***4.66E+00***	U	2.5E+00	2.6E+00	4.79E+00	pCi/g	100%	*0.97*	4/12/11 03:05 p		0.2005	GPC32A
						2.22E+00	1.50E+01	*(3.6)*			g	

No. of Results: 8 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 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

Date: 18-Apr-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0154	**Collection Date:**	4/1/2011 11:20:00 AM
Lot-Sample No.:	J1D070418-1	**Report No. :**	46239	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H078 DUP	**COC No. :**	RC-073-134	**Matrix:**	OTHER OTHERSOLID

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1097358	GAMMA_GS			Work Order:	MGNE71AE	Report DB ID:	MGNE71ER		Orig Sa DB ID: 9MGNE710			
AMERICIUM 241	-2.33E-01	U	6.6E-01	6.6E-01	1.09E+00	pCi/g		-0.21	4/13/11 06:47 a		22.6	GER13$1
	-1.38E-02	U	RPD	-177.6				-0.7			g	
CO-60	-4.95E-02	U	1.1E-01	1.1E-01	1.81E-01	pCi/g		-0.27	4/13/11 06:47 a		22.6	GER13$1
	-1.30E-01	U	RPD	-89.6		5.00E-02		-0.92			g	
CS-137	7.39E-03	U	9.6E-02	9.6E-02	1.66E-01	pCi/g		0.04	4/13/11 06:47 a		22.6	GER13$1
	7.83E-02	U	RPD	165.5		1.00E-01		0.15			g	
EU-152	-2.88E-02	U	2.2E-01	2.2E-01	3.64E-01	pCi/g		-0.08	4/13/11 06:47 a		22.6	GER13$1
	3.03E-01	U	RPD	242.0		1.00E-01		-0.27			g	
EU-154	-9.09E-02	U	2.9E-01	2.9E-01	4.92E-01	pCi/g		-0.18	4/13/11 06:47 a		22.6	GER13$1
	9.43E-02	U	RPD	10993.2		1.00E-01		-0.64			g	
EU-155	-5.24E-02	U	1.9E-01	1.9E-01	3.27E-01	pCi/g		-0.16	4/13/11 06:47 a		22.6	GER13$1
	5.12E-02	U	RPD	-18023.0		1.00E-01		-0.54			g	
Batch: 1097359	9310_ALPHABETA_GPC			Work Order:	MGNE71AF	Report DB ID:	MGNE71FR		Orig Sa DB ID: 9MGNE710			
ALPHA	2.93E+00	U	2.9E+00	3.0E+00	4.91E+00	pCi/g	100%	0.6	4/15/11 09:56 a		0.0505	GPC10D
	4.01E+00	U	RPD	31.2		1.00E+01		(1.9)			g	
Batch: 1097361	9310_ALPHABETA_GPC			Work Order:	MGNE71AG	Report DB ID:	MGNE71GR		Orig Sa DB ID: 9MGNE710			
BETA	9.23E+00		2.9E+00	3.1E+00	4.73E+00	pCi/g	100%	(1.9)	4/12/11 03:05 p		0.2005	GPC32B
	4.66E+00	U	RPD	65.7		1.50E+01		(5.9)			g	

No. of Results: 8 Comments:

TestAmerica rptSTLRchDupV5.2 .12 A2002

RPD - Relative Percent Difference.

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: 18-Apr-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0154

Report No. : 46239

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: 1097358	GAMMA_GS			Work Order:	MGPHN1AA		Report DB ID:	MGPHN1AB				
AMERICIUM 241	-4.22E-03	U	9.5E-02	9.5E-02	1.60E-01	pCi/g		-0.03	4/13/11 06:47 a		52.0	GER7$1
								-0.09			g	
CO-60	-3.55E-02	U	4.9E-02	4.9E-02	7.94E-02	pCi/g		-0.45	4/13/11 06:47 a		52.0	GER7$1
						5.00E-02		-(1.5)			g	
CS-137	-1.42E-02	U	4.4E-02	4.4E-02	7.55E-02	pCi/g		-0.19	4/13/11 06:47 a		52.0	GER7$1
						1.00E-01		-0.65			g	
EU-152	4.46E-02	U	1.0E-01	1.0E-01	1.90E-01	pCi/g		0.24	4/13/11 06:47 a		52.0	GER7$1
						1.00E-01		0.86			g	
EU-154	4.57E-02	U	1.1E-01	1.1E-01	2.27E-01	pCi/g		0.2	4/13/11 06:47 a		52.0	GER7$1
						1.00E-01		0.81			g	
EU-155	-3.13E-02	U	8.1E-02	8.1E-02	1.37E-01	pCi/g		-0.23	4/13/11 06:47 a		52.0	GER7$1
						1.00E-01		-0.78			g	
Batch: 1097359	9310_ALPHABETA_GPC			Work Order:	MGPHT1AA		Report DB ID:	MGPHT1AB				
ALPHA	7.11E-01	U	9.7E-01	9.9E-01	1.71E+00	pCi/g	100%	0.42	4/15/11 09:56 a		0.0504	GPC10A
					5.79E-01	1.00E+01		(1.4)			g	
Batch: 1097361	9310_ALPHABETA_GPC			Work Order:	MGPH11AA		Report DB ID:	MGPH11AB				
BETA	7.03E-02	U	1.5E+00	1.5E+00	3.62E+00	pCi/g	100%	0.02	4/12/11 03:05 p		0.2006	GPC32C
					1.67E+00	1.50E+01		0.09			g	

No. of Results: 8 **Comments:**

TestAmerica
rptSTLRchBlank
V5.2.12 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

LCS RESULTS

Date: 18-Apr-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0154

Report No. : 46239

Parameter	Result	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: 1097358	GAMMA_GS			Work Order:	MGPHN1AC		Report DB ID:	MGPHN1CS					
AMERICIUM 241	4.17E+01		5.0E+00	5.0E+00	5.53E-01	pCi/g		4.02E+01	5.7E-03	104%	4/16/11 12:51 a	54.51	GER7$1
							Rec Limits:	70	130	0.0		g	
CO-60	1.80E+01		3.6E+00	3.6E+00	1.37E-01	pCi/g		1.95E+01	2.8E-03	92%	4/16/11 12:51 a	54.51	GER7$1
							Rec Limits:	70	130	-0.1		g	
CS-137	4.35E+01		6.0E+00	6.0E+00	1.94E-01	pCi/g		4.39E+01	6.2E-03	99%	4/16/11 12:51 a	54.51	GER7$1
							Rec Limits:	70	130	0.0		g	
Batch: 1097359	9310_ALPHABETA_GPC			Work Order:	MGPHT1AC		Report DB ID:	MGPHT1CS					
ALPHA	9.01E+01		8.7E+00	2.0E+01	2.11E+00	pCi/g	100%	9.22E+01	9.3E-01	98%	4/15/11 09:56 a	0.05	GPC10B
							Rec Limits:	70	130	0.0		g	
Batch: 1097361	9310_ALPHABETA_GPC			Work Order:	MGPH11AC		Report DB ID:	MGPH11CS					
BETA	6.79E+01		5.5E+00	1.0E+01	4.22E+00	pCi/g	100%	6.85E+01	2.6E+00	99%	4/12/11 03:05 p	0.2	GPC32D
							Rec Limits:	70	130	0.0		g	

No. of Results: 5 Comments:

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

rptSTLRchLcs
V5.2.12 A2002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/15/2011 1:17:52 PM

Lot No., Due Date: J1D070418; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1097359; RALPHA-A Alpha by GPC-Am
SDG, Matrix: JP0154; OTHER

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:

Thomas D M

First Level _____ **Date** 4/15/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1097359

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: CRDL = 10.0 pCi/g

Second Level Review: [signature] Date: 4/16/14

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/13/2011 1:59:04 PM

Lot No., Due Date: J1D070418; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1097361; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: JP0154; OTHER

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

6.0 Comments on any No response:

Thomas D M

First Level _____ **Date** 4/13/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1097361

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: CRDL = 15.0 pCi/g

Second Level Review: [signature] Date: 4/13/11

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/18/2011 12:23:28 PM

Lot No., Due Date: J1D070418; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1097358; RGAMMA Gamma by GER
SDG, Matrix: JP0154; OTHER

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:
NCM 10-18125

First Level [signature] Date 4/18/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1097358

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: CRQL = 0.5 pCi/L
See NCM #10-18125: 0.1 pCi/L

Second Level Review: [signature] Date: 4/18/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18125
NCM Initiated By: Lisa Antonson
Date Opened: 04/18/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J1D070000 (358), J1D070418 (1),
QC Batches: 1097358,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/18/2011	CRDL is not met for the samples in this batch due to low volumen and shortened count time for priority processing.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/18/2011	None

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 4/18/2011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-134	Page 1 of 1

Collector: Blankingship / Lucas	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: ~~9L~~ 9B JRD 4/1/11	Data Turnaround: ~~21~~ 7 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 600-30 (100D-AN-08-042)		SAF No.: RC-073
Ice Chest No.: NA	Field Logbook No.: EL-1657	COA: R600302600	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland ~~RCF~~ JEB 4-6-11	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

~~Radioactive~~ JRD 3/28/11

Radioactive < DOT Limits JEB 4-6-11

Special Handling and/or Storage

~~Cool 4 Deg C~~ JRD 3/28/11

NONE JEB 4-6-11

Client # 127642
Quote # 27038
SDG # ~~J01672~~ 16
LOT # J1D070418
Report # 4/13/11

SAMPLE ANALYSIS 4-07-11 JP0154

J1D070418

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None
Type of Container	G/P	G	G/P	G	aG	aG	aG	G/P	G/P	G/P
No. of Container(s)	1	1	1	1	1	1	1	1	1	1
Volume	60mL	125mL	60mL	60mL	60mL	60mL	125mL	500mL	60mL	~~60g~~ 500mL
	See item (1) in Special Instructions.	See item (2) in Special Instructions.	IC Anions - 9056 Modified; NO2/NO3 - 353.1; pH - 9045	Total Cyanide - 9010; Sulfides - 9030	Semi-VOA - 8270A (TCL)	PCBs - 8082	TCLP Semi-VOA - 1311/8270A	See item (3) in Special Instructions.	Gross Alpha & Gross Beta	RCF GEA Shipping Screen JEB 4-6-11

Sample No.	Matrix *	Sample Date	Sample Time	RCF									
J1H078	OTHER	4/1/11	1120	27500	200	3/20		MG	NE	7	✓	✓	✓

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From: K Lucas	Date/Time: 4-1-11 1330	Received By/Stored In: J R DeBrigne	Date/Time: 1330 4/1/11
Relinquished By/Removed From: J. E. Ball	Date/Time: 0945 4-4-11	Received By/Stored In: RCF M. Kerak	Date/Time: 4-4-11 0945
Relinquished By/Removed From: RCF M. Kerak	Date/Time: 4-5-11 0840	Received By/Stored In: J. E. Ball	Date/Time: 0840 4-5-11
Relinquished By/Removed From: J. E. Ball	Date/Time: 1520 4-6-11	Received By/Stored In: TALR	Date/Time: 1520 4/6/11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

Screen for oxidizer with Spilfyter test strip.

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}
(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

J. Debrigne unavailable to relinquish samples 4-4-11. JEB 4-4-11

JP0154

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

REVIEWED BY J.C DATE 4/6/11

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

WCH-EE-011

Apex™

Non-Reg

Analysis Report for RCF27500

J1H078 SAF:RC-073 100D/600-30 (100D-AN-08-042)

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27500
Sample Description	: J1H078 SAF:RC-073 100D/600-30 (100D-AN-08-042)
Sample Type	: Non Standard Geometry
Sample Size	: 2.600E+02 grams
Facility	: Default
Sample Taken On	: 4/1/2011 11:20:00AM
Acquisition Started	: 4/4/2011 2:27:13PM
Procedure	: Non Standard Geometry
Operator	: RCT
Detector Name	: REGIE2
Geometry	: Non Standard Geometry
Live Time	: 3600.0 seconds
Real Time	: 3600.8 seconds
Dead Time	: 0.02 %
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	: 3/11/2011
Efficiency Calibration Used Done On	: 3/16/2011
Efficiency Calibration Description	: REGIE2 NSTD 031511EC SN82751A-238
Sample Number	: 13208

QUALITATIVE ONLY

INTERFERENCE CORRECTED REPORT

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40		0.996	4.50E-01	3.76E-01	
RA-226d	@	0.404	1.13E-01	3.29E-02	
TH-232d		0.855	1.69E-01	3.13E-02	
U-235		0.540	2.77E-02	2.20E-02	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 4/6/11 @ 1520 GM Screen Result (out) .13 (in) .15 Initials [LV]

Client: UCH SDG #: ~~J01072~~ JP0154 4.7.11 NA [ ] SAF #: RC-073 NA [ ]

Work Order Number: J1D070418 Chain of Custody # RC-073-134

Shipping Container ID: Hand Delivery NA [ ] Air Bill # NA [LV]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [LV] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [LV] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [LV] No [ ]
4. Cooler temperature: On Ice NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [LV]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 1@1-500ml p
7. Sample holding times exceeded? NA [ ] Yes [ ] No [LV]
8. Samples have:
   ____ tape
   LV custody seals
   ____ hazard labels
   LV appropriate sample labels
9. Samples:
   LV are in good condition
   ____ are broken
   (other)
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [LV] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : N/A
11. Sample Location, Sample Collector Listed? * Yes [LV] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [LV]
13. Description of anomalies (include sample numbers): NA [LV]

See other side for additional comments

Sample Custodian: [signature] Date: 4/6/11

Client Informed on N/A by N/A Person contacted N/A

[LV] No action necessary; process as is

Project Manager Whitney Kitasi Date 4/7/11

LS-023, Rev. 12, 10/10

4/12/2011 12:43:19 PM

Sample Preparation/Analysis

Balance Id:1117411003

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

AY Gross Alpha Prp PRP003/GPC007
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097359 OTHER pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ~~Beckd~~ BaughB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MGNE7-1-AA J1D070418-1-SAMP 04/01/2011 11:20	AmtRec: 1X500MLP	0.0505g,in	#Containers: 1		50.5	100	1SC Scr:	1047 Alpha:	4/15/11 Beta:	
2 MGNE7-1-AF-X J1D070418-1-DUP 04/01/2011 11:20	AmtRec: 1X500MLP	0.0505g,in	#Containers: 1		50.5		1UD Scr:	Alpha:	Beta:	
3 MGPHT-1-AA-B J1D070000-359-BLK 04/07/2011 14:38 pd	AmtRec:	0.0504g,in	#Containers: 1		1.4018g 1.4009g 0.9mg		1SB Scr:	Alpha:	Beta:	
4 MGPHT-1-AC-C J1D070000-359-LCS 04/07/2011 14:38 pd	AmtRec:	0.05g,in	ASD5098 01/25/11,pd 04/04/05,c #Containers: 1		1.3921g 1.3911g 1.0mg		1UB Scr:	Alpha:	Beta:	

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MGNE71AA-SAMP Constituent List:

ALPHA	RDL:1.00E+01	pCi/g	LCL:	UCL:	RPD:

MGPHT1AA-BLK:

ALPHA	RDL:1.00E+01	pCi/g	LCL:	UCL:	RPD:

MGPHT1AC-LCS:

Am-241	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

MGNE71AA-SAMP Calc Info:

TestAmerica Laboratories, Inc.

4/12/2011 12:43:20 PM

Sample Preparation/Analysis

AY Gross Alpha Prp PRP003/GPC007
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1117411003

Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097359 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MGPHT1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MGPHT1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

4/15/2011 1:17:25 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/15/2010, 4/20/2011, Batch: '1097359', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097359						
AC		Rev1C	**BouslaughP**	4/8/2011 8:10:04 AM		
SC			Maucieris	IsBatched	4/7/2011 2:38:08 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	Prep1C	4/8/2011 8:10:04 AM	RL-PRP-003 REVISION 1
SC			BockJ	InPrep	4/12/2011 12:42:01 PM	RL-PRP-004 REVISION 1
SC			BockJ	Prep2C	4/12/2011 12:48:44 PM	RL-GPC-007 REVISION 1
SC			ClarkR	InCnt1	4/12/2011 1:05:49 PM	RL-CI-006 REVISION 1
SC			ClarkR	CalcC	4/15/2011 12:15:05 PM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/15/2011 1:17:17 PM	RL-DR-001 Rev 2
AC			**BockJ**	4/12/2011 12:42:01		
AC			**BockJ**	4/12/2011 12:48:44		
AC			**ClarkR**	4/12/2011 1:05:49 PM		
AC			**ClarkR**	4/15/2011 12:15:05		
AC			**mcginnist**	4/15/2011 1:17:17 PM		

AC: Accepting Entry; SC: Status Change

4/12/2011 12:44:01 PM

Sample Preparation/Analysis

Balance Id:1117411003

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

BB Gross Beta Prp PRP003/GPC007
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097361 OTHER pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ~~Bocks~~ Baughs

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MGNE7-1-AC J1D070418-1-SAMP 04/01/2011 11:20		0.2005g,in AmtRec: 1X500MLP #Containers: 1			200.5	50	72A Scr:	1529 Alpha:	4/12/11 m Beta:	
2 MGNE7-1-AG-X J1D070418-1-DUP 04/01/2011 11:20		0.2005g,in AmtRec: 1X500MLP #Containers: 1			200.5		72B Scr:	Alpha:	Beta:	
3 MGPH1-1-AA-B J1D070000-361-BLK 04/07/2011 14:38 pd		0.2006g,in AmtRec: #Containers: 1			1.39139 1.39129 0.1mg		72C Scr:	Alpha:	Beta:	
4 MGPH1-1-AC-C J1D070000-361-LCS 04/07/2011 14:38 pd		0.20g,in AmtRec: #Containers: 1	BESD1724 03/31/11,pd 10/01/01,c		1.39019 1.39019 0mg		72D Scr:	Alpha:	Beta:	

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MGNE71AC-SAMP Constituent List:

BETA	RDL:1.50E+01	pCi/g	LCL:	UCL:	RPD:
MGPH11AA-BLK:					
BETA	RDL:1.50E+01	pCi/g	LCL:	UCL:	RPD:
MGPH11AC-LCS:					
Sr-90	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

MGNE71AC-SAMP Calc Info:

TestAmerica Laboratories, Inc.

4/12/2011 12:44:02 PM

Sample Preparation/Analysis

BB Gross Beta Prp PRP003/GPC007
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1117411003
Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097361 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MGPH11AA-BLK:

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MGPH11AC-LCS:

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

4/13/2011 1:58:37 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/13/2010, 4/18/2011, Batch: '1097361', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097361						
AC		**Rev1C**	**BockJ**	4/12/2011 12:43:25		
SC			Maucieris	IsBatched	4/7/2011 2:38:13 PM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	4/12/2011 12:43:25 PM	RL-PRP-004 REVISION 1
SC			BockJ	Prep2C	4/12/2011 12:48:53 PM	RL-GPC-007 REVISION 1
SC			ClarkR	InCnt1	4/12/2011 1:09:12 PM	RL-CI-006 REVISION 1
SC			DawkinsO	CalcC	4/13/2011 12:33:32 AM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/13/2011 1:58:29 PM	RL-DR-001 Rev 2
AC			**BockJ**	4/12/2011 12:48:53		
AC			**ClarkR**	4/12/2011 1:09:12 PM		
AC			**DawkinsO**	4/13/2011 12:33:32		
AC			**mcginnist**	4/13/2011 1:58:29 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.44

WCH Soil [Nuc-LBE]TRL.NLB

4/7/2011 4:18:43 PM

Sample Preparation/Analysis

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

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120421763
Pipet #:

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BouslaughP

Batch: 1097358 OTHER pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None All Tests: 1097358 AXTA, 1097359 AYS7, 1097361 BBS8,

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 MGNE7-1-AD J1D070418-1-SAMP 04/01/2011 11:20			20.60g,in AmtRec: 1X500MLP	20.60g #Containers: 1		25mL	200min	06	1006	4/13/11	
								Scr:	Alpha:		Beta:
2 MGNE7-1-AE-X J1D070418-1-DUP 04/01/2011 11:20			22.4 AmtRec: 1X500MLP	#Containers: 1				613	1007		
								Scr:	Alpha:		Beta:
3 MGPHN-1-AA-B J1D070000-358-BLK 04/07/2011 14:38 pd			52.00g,in AmtRec:	52.00g #Containers: 1		525		67	1007		
								Scr:	Alpha:		Beta:
4 MGPHN-1-AC-C J1D070000-358-LCS 04/07/2011 14:38 pd			54.51g,in AmtRec:	54.51g #Containers: 1	cal5446 05/19/05,pd 06/08/05,r			57	0411	4/16/9	
								Scr:	Alpha:		Beta:

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MGNE71AD-SAMP Constituent List:

MGPHN1AA-BLK:

MGPHN1AC-LCS:

MGNE71AD-SAMP Calc Info:

TestAmerica Laboratories, Inc.

4/18/2011 12:22:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/18/2010, 4/23/2011, Batch: '1097358', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097358						
AC		Rev1C	BouslaughP	4/7/2011 3:44:33 PM		
SC			Maucieris	IsBatched	4/7/2011 2:38:00 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	4/7/2011 3:44:33 PM	RL-GAM-001 REVISION 1
SC			SannohS	InPrep	4/7/2011 4:16:08 PM	RL-GAM-001 REVISION 1
SC			DawkinsO	InCnt1	4/14/2011 3:47:35 PM	RL-CI-007 REVISION 1
SC			BlackCL	CalcC	4/16/2011 6:36:37 AM	RL-CI-007 REVISION 1
SC			antonsonl	Rev1C	4/18/2011 12:21:13 PM	RL-DR-001 Rev 2
AC			SannohS	4/7/2011 4:16:08 PM		
AC			DawkinsO	4/14/2011 3:47:35 PM		
AC			BlackCL	4/16/2011 6:36:37		
AC			antonsonl	4/18/2011 12:21:13		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.44

4/18/2011 12:22:29 PM

Rpt DB Transfer log (Batch Results)

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Mdl	Sample Date / Units	Expected	Yield	Volumes
JP0154	**9MGNE710**			**J1D0704181**	J1H078	OTHER	4/6/2011 3:20:00 PM		4/1/2011 11:20:00 AM			
ALPHA	AYS7	0		4/15/2011 9:56:46 AM	**4.0106E+00**	1.719E+00	1.767E+00	5.563E+00	pCi/g		1.0	5.05E-2
AM-241	AXTA	0		4/13/2011 6:46:04 AM	**-1.3787E-02**	7.8E-02	7.8E-02	2.594E-01	PCI/GRAM			2.06E+1
BETA	BBS8	0		4/12/2011 3:05:06 PM	**4.6606E+00**	1.261E+00	1.298E+00	4.785E+00	pCi/g		1.0	2.005E-1
CO-60	AXTA	0		4/13/2011 6:46:04 AM	**-1.2984E-01**	6.233E-02	6.233E-02	1.928E-01	PCI/GRAM			2.06E+1
CS-137	AXTA	0		4/13/2011 6:46:04 AM	**7.8258E-02**	5.788E-02	5.788E-02	2.13E-01	PCI/GRAM			2.06E+1
EU-152	AXTA	0		4/13/2011 6:46:04 AM	**3.0257E-01**	1.618E-01	1.618E-01	5.49E-01	PCI/GRAM			2.06E+1
EU-154	AXTA	0		4/13/2011 6:46:04 AM	**9.4286E-02**	1.546E-01	1.546E-01	5.953E-01	PCI/GRAM			2.06E+1
EU-155	AXTA	0		4/13/2011 6:46:04 AM	**5.1206E-02**	1.137E-01	1.137E-01	3.922E-01	PCI/GRAM			2.06E+1
JP0154	**MGNE71ER**			**J1D0704181**	J1H078 DUP	OTHER	4/6/2011 3:20:00 PM		4/1/2011 11:20:00 AM			
AM-241	AXTA	0	R	4/13/2011 6:47:34 AM	**-2.329E-01**	3.32E-01	3.32E-01	1.092E+00	PCI/GRAM			2.26E+1
CO-60	AXTA	0	R	4/13/2011 6:47:34 AM	**-4.9479E-02**	5.364E-02	5.364E-02	1.806E-01	PCI/GRAM			2.26E+1
CS-137	AXTA	0	R	4/13/2011 6:47:34 AM	**7.3921E-03**	4.802E-02	4.802E-02	1.657E-01	PCI/GRAM			2.26E+1
EU-152	AXTA	0	R	4/13/2011 6:47:34 AM	**-2.877E-02**	1.081E-01	1.081E-01	3.637E-01	PCI/GRAM			2.26E+1
EU-154	AXTA	0	R	4/13/2011 6:47:34 AM	**-9.0917E-02**	1.428E-01	1.428E-01	4.919E-01	PCI/GRAM			2.26E+1
EU-155	AXTA	0	R	4/13/2011 6:47:34 AM	**-5.2355E-02**	9.717E-02	9.717E-02	3.274E-01	PCI/GRAM			2.26E+1
JP0154	**MGPHN1AB**			**J1D070000358**	INTRA-LAB BLANK	OTHER	4/6/2011 3:20:00 PM		4/1/2011 11:20:00 AM			
AM-241	AXTA	0	B	4/13/2011 6:47:49 AM	**-4.221E-03**	4.739E-02	4.739E-02	1.603E-01	PCI/GRAM			5.2E+1
CO-60	AXTA	0	B	4/13/2011 6:47:49 AM	**-3.5487E-02**	2.438E-02	2.438E-02	7.943E-02	PCI/GRAM			5.2E+1
CS-137	AXTA	0	B	4/13/2011 6:47:49 AM	**-1.4242E-02**	2.18E-02	2.18E-02	7.546E-02	PCI/GRAM			5.2E+1
EU-152	AXTA	0	B	4/13/2011 6:47:49 AM	**4.4632E-02**	5.175E-02	5.175E-02	1.896E-01	PCI/GRAM			5.2E+1
EU-154	AXTA	0	B	4/13/2011 6:47:49 AM	**4.5708E-02**	5.676E-02	5.676E-02	2.271E-01	PCI/GRAM			5.2E+1
EU-155	AXTA	0	B	4/13/2011 6:47:49 AM	**-3.1283E-02**	4.029E-02	4.029E-02	1.366E-01	PCI/GRAM			5.2E+1
JP0154	**MGPHN1CS**			**J1D070000358**	INTRA-LAB CHECK	OTHER	4/6/2011 3:20:00 PM		4/1/2011 11:20:00 AM			
AM-241	AXTA	0	S	4/16/2011 12:51:38	**4.1722E+01**	2.503E+00	2.503E+00	5.533E-01	PCI/GRAM	4.023E+01		5.451E+1
CO-60	AXTA	0	S	4/16/2011 12:51:38	**1.8042E+01**	1.813E+00	1.813E+00	1.371E-01	PCI/GRAM	1.9518E+01		5.451E+1
CS-137	AXTA	0	S	4/16/2011 12:51:38	**4.3494E+01**	3.006E+00	3.006E+00	1.936E-01	PCI/GRAM	4.388E+01		5.451E+1

1097358,1097358, **Samples Inserted | Updated | NotUpdated => 3 | 0 | 1,
**Results Insorted | ReTestInserted | Updated | NotInserted => 21 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

TestAmerica Richland : Review v4.8.44

Page 1

TestAmerica

ANALYTICAL REPORT

Job Number: 280-14325-1

SDG Number: JP0154

Job Description: SAF# RC-073

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

Attention: Joan H Kessner

Approved for release.
Michael T Dedio
Project Mgmt. Assistant
4/22/2011 2:30 PM

Designee for
Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
04/22/2011

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 E87667.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-14325-1

SDG #: JP0154
SAF#: RC-073

Date SDG Closed: April 7, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H078	280-14325-1	6010/7471/1311-6010-7470/8260 8270A/8082/1311-8270A/Oxidizer test	6010B/7471A/1311-6010B-7470A/8260B 8270C/8082/1311-8270C/Oxidizer test

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 sample was received on 4/7/2011; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 5.6 C and 3.4 C.

Sample J1H078 was made up of white plastic chunks and dark solid material. Per the client's request during a phone conversation on 4/7/2011 only the dark solid material will be analyzed.

Sample J1H078 was logged as two samples, one solid matrix and one waste matrix, as the laboratory could not extract the 8270 SVOC and 8082 PCBs using the standard soil extraction and needed to extract the sample as a waste.

GC/MS VOLATILES - SW846 8260C

Surrogates Toluene-d8 and 4-Bromofluorobenzene failed the recovery criteria high in sample J1H078. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

Methylene Chloride, a common laboratory contaminant, was detected in the method blank associated with batch 280-61399 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The MS/MSD performed on sample J1H0078 exhibited percent recoveries outside the control limits for several compounds and surrogates, and the associated sample results have been flagged "N". In addition, the RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The laboratory noted that this anomaly is due to obvious matrix interference.

No other anomalies were encountered.

GC/MS SEMIVOLATILES - SW846 8270C

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the presence of high concentrations of non-target analytes, sample J1H078 had to be analyzed at dilutions, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilutions required.

Surrogate recoveries have been "D" flagged in sample J1H078, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

Spike compound recoveries, RPD data and surrogate recoveries have been "D" flagged in the MS/MSD performed on sample J1H078, as the recoveries obtained are calculated from diluted samples and are not considered reliable. The acceptable LCS analysis data indicated that the analytical system was operating within control.

No other anomalies were encountered.

TCLP SEMIVOLATILES - SW846 1311/8270C

Low levels of 3-Methylphenol & 4-Methylphenol are present in the method blank associated with batch 280-61500. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

The MS/MSD performed on sample J1H0078 exhibited percent recoveries outside the control limits for Pentachlorophenol, and the associated sample results have been flagged "T". In addition, the RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs

Surrogate Decachlorobiphenyl failed the recovery criteria low in sample J1H078 and MS/MSD performed on J1H078. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

No anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Calcium, Chromium, Iron and Magnesium in the Matrix Spike performed on sample J1H078; therefore, control limits are not applicable.

Mercury was recovered outside the control limits in the Matrix Spike performed on sample J1H078, 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.

The SW846 6010B duplicate analysis of sample J1H078 exhibited RPD data outside the control limits for Antimony, Beryllium, Molybdenum, Selenium and Zinc, and the associated sample result has been flagged "M". 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.

TCLP METALS - SW846 1311/6010B/7470A

Low levels of Barium and Silver are present in the method blank associated with batch 280-61547. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

The duplicate analysis of sample J1H078 exhibited RPD data outside the control limits for Silver, and the associated sample result has been flagged "M". 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: 280-14325-1
Sdg Number: JP0154

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	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
GC/MS Semi VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	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.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
GC Semi VOA		
	U	Analyzed for but not detected.
	*	Surrogate exceeds the control limit

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

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 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
TCLP Semivolatiles	TAL DEN	SW846 8270C	
TCLP Extraction	TAL DEN		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL DEN		SW846 3510C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
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
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	
Matrix Waste			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Waste Dilution	TAL DEN		SW846 3580A
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Waste Dilution	TAL DEN		SW846 3580A

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: 280-14325-1
Sdg Number: JP0154

Method	Analyst	Analyst ID
SW846 8260B	Reinhardt, Jason	JR
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8270C	Tinkham, Sarah A	SAT
SW846 8082	Pavlakovich, Adam M	AMP
SW846 6010B	Bowen, Heidi E	HEB
SW846 6010B	Harre, John K	JKH
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Stoltz, Katie	KS
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-14325-1	J1H078	Solid	04/01/2011 1120	04/07/2011 0930
280-14325-2	J1H078	Waste	04/01/2011 1120	04/07/2011 0930

Inorganic Data Summary Report
Physical Testing Observation

Client: WC-HANFORD RC-073
SDG#: JP0154

JOB#: 280-14325-1
Date Received: 4/7/2011

Analyte:	Observation:
Oxidizer	The presence of oxidizers were not indicated using the Spilfyter Chemical Classifier Strips for sample J1H078.

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-61399	Lab File ID:	J5943.D
Dilution:	1.0			Initial Weight/Volume:	3.791 g
Analysis Date:	04/08/2011 1224			Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		610		7.2	27
Benzene		0.63	U T	0.63	6.7
Bromodichloromethane		0.29	U	0.29	6.7
Bromoform		0.31	U	0.31	6.7
Bromomethane		0.67	U	0.67	13
2-Butanone (MEK)		240		2.4	13
Carbon disulfide		2.9	J	0.56	6.7
Carbon tetrachloride		0.84	U T	0.84	6.7
Chlorobenzene		0.72	U T	0.72	6.7
Dibromochloromethane		0.76	U	0.76	6.7
Chloroethane		1.2	U	1.2	13
Chloroform		0.39	U T	0.39	6.7
Chloromethane		1.0	U	1.0	13
1,1-Dichloroethane		0.28	U	0.28	6.7
1,2-Dichloroethane		0.94	U	0.94	6.7
1,1-Dichloroethene		0.79	U	0.79	6.7
1,2-Dichloroethene, Total		0.52	U	0.52	6.7
1,2-Dichloropropane		0.73	U T	0.73	6.7
cis-1,3-Dichloropropene		1.7	U	1.7	6.7
trans-1,3-Dichloropropene		0.90	U	0.90	6.7
Ethylbenzene		0.90	U T	0.90	6.7
2-Hexanone		72		6.5	27
Methylene Chloride		3.1	J B	1.0	6.7
4-Methyl-2-pentanone (MIBK)		5.8	U	5.8	13
Styrene		0.84	U	0.84	6.7
1,1,2,2-Tetrachloroethane		0.82	U	0.82	6.7
Tetrachloroethene		0.79	U T	0.79	6.7
Toluene		0.92	U T	0.92	6.7
1,1,1-Trichloroethane		0.69	U	0.69	6.7
1,1,2-Trichloroethane		1.2	U	1.2	6.7
Trichloroethene		0.31	U T	0.31	6.7
Vinyl chloride		1.8	U	1.8	6.7
Xylenes, Total		0.82	U	0.82	6.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		58 - 140
Toluene-d8 (Surr)	133	*	80 - 126
4-Bromofluorobenzene (Surr)	156	*	76 - 127
Dibromofluoromethane (Surr)	121		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-61399	Lab File ID:	J5943.D
Dilution:	1.0			Initial Weight/Volume:	3.791 g
Analysis Date:	04/08/2011 1224			Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				

Tentatively Identified Compounds **Number TIC's Found:** **10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
71-36-3	n-Butanol	7.02	170	J N J
107-87-9	2-Pentanone	7.30	87	N J
	Unknown	9.21	15	N J
111-13-7	2-Octanone	12.65	23	N J
104-76-7	1-Hexanol, 2-ethyl-	13.24	8.3	N J
1120-21-4	Undecane	13.56	6.7	N J
	Unknown	14.03	14	N J
91-20-3	Naphthalene	15.63	1.5	J J N
87-61-6	1,2,3-Trichlorobenzene	15.90	1.3	J J N
	Unknown	16.06	11	N J

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8270C TCLP Semivolatiles-TCLP

Analysis Method:	8270C	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Prep Method:	3510C	Prep Batch:	280-61500	Lab File ID:	G6_2008.D
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 2245			Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Methylphenol	0.0049	U	0.0049	0.050
3-Methylphenol & 4-Methylphenol	0.0024	J B	0.0012	0.050
1,4-Dichlorobenzene	0.0016	U	0.0016	0.020
2,4-Dinitrotoluene	0.0083	U	0.0083	0.050
Hexachlorobenzene	0.0033	U	0.0033	0.050
Hexachlorobutadiene	0.016	U	0.016	0.050
Hexachloroethane	0.010	U	0.010	0.050
Nitrobenzene	0.0040	U	0.0040	0.050
Pentachlorophenol	0.0050	U T	0.0050	0.25
Pyridine	0.0056	U	0.0056	0.10
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		49 - 120
2-Fluorophenol	79		50 - 120
Phenol-d5	81		47 - 120
2,4,6-Tribromophenol	95		51 - 120
Terphenyl-d14	95		56 - 120
Nitrobenzene-d5	88		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-2
Client Matrix: Waste

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Prep Method:	3580A	Prep Batch:	280-61401	Lab File ID:	Y9425.D
Dilution:	10			Initial Weight/Volume:	1.0922 g
Analysis Date:	04/09/2011 0001			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		49000	U D	49000	910000
2-Chlorophenol		58000	U D	58000	910000
1,3-Dichlorobenzene		33000	U D	33000	910000
1,4-Dichlorobenzene		38000	U D	38000	910000
1,2-Dichlorobenzene		60000	U D	60000	910000
2-Methylphenol		36000	U D	36000	910000
3 & 4 Methylphenol		91000	U D	91000	910000
N-Nitrosodi-n-propylamine		85000	U D	85000	910000
Hexachloroethane		59000	U D	59000	910000
Nitrobenzene		60000	U D	60000	910000
Isophorone		47000	U D	47000	910000
2,4-Dimethylphenol		180000	U D	180000	910000
2-Nitrophenol		27000	U D	27000	910000
Bis(2-chloroethoxy)methane		63000	U D	63000	910000
2,4-Dichlorophenol		27000	U D	27000	910000
1,2,4-Trichlorobenzene		77000	U D	77000	910000
Naphthalene		85000	U D	85000	910000
4-Chloroaniline		230000	U D	230000	910000
Hexachlorobutadiene		27000	U D	27000	910000
4-Chloro-3-methylphenol		180000	U D	180000	910000
2-Methylnaphthalene		52000	U D	52000	910000
Hexachlorocyclopentadiene		140000	U D	140000	4400000
2,4,6-Trichlorophenol		27000	U D	27000	910000
2,4,5-Trichlorophenol		27000	U D	27000	910000
2-Chloronaphthalene		27000	U D	27000	910000
2-Nitroaniline		140000	U D	140000	4400000
Dimethyl phthalate		63000	U D	63000	910000
2,6-Dinitrotoluene		77000	U D	77000	910000
Acenaphthylene		47000	U D	47000	910000
3-Nitroaniline		200000	U D	200000	4400000
Acenaphthene		27000	U D	27000	910000
2,4-Dinitrophenol		910000	U D	910000	4400000
4-Nitrophenol		270000	U D	270000	4400000
Dibenzofuran		55000	U D	55000	910000
2,4-Dinitrotoluene		180000	U D	180000	910000
Diethyl phthalate		71000	U D	71000	1800000
4-Chlorophenyl phenyl ether		58000	U D	58000	910000
Fluorene		49000	U D	49000	910000
4-Nitroaniline		200000	U D	200000	4400000
4,6-Dinitro-2-methylphenol		910000	U D	910000	4400000
N-Nitrosodiphenylamine		58000	U D	58000	910000
4-Bromophenyl phenyl ether		52000	U D	52000	910000
Hexachlorobenzene		80000	U D	80000	910000
Pentachlorophenol		910000	U D	910000	4400000
Phenanthrene		47000	U D	47000	910000
Anthracene		47000	U D	47000	910000

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-2
Client Matrix: Waste

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Prep Method:	3580A	Prep Batch:	280-61401	Lab File ID:	Y9425.D
Dilution:	10			Initial Weight/Volume:	1.0922 g
Analysis Date:	04/09/2011 0001			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
Carbazole		100000	U D	100000	910000
Di-n-butyl phthalate		80000	U D	80000	910000
Fluoranthene		100000	U D	100000	910000
Pyrene		33000	U D	33000	910000
Butyl benzyl phthalate		120000	U D	120000	910000
Bis(2-ethylhexyl) phthalate		200000	J D	130000	910000
3,3'-Dichlorobenzidine		250000	U D	250000	1800000
Benzo[a]anthracene		55000	U D	55000	910000
Chrysene		74000	U D	74000	910000
Di-n-octyl phthalate		39000	U D	39000	910000
Benzo[b]fluoranthene		72000	U D	72000	910000
Benzo[k]fluoranthene		110000	U D	110000	910000
Benzo[a]pyrene		55000	U D	55000	910000
Dibenz(a,h)anthracene		52000	U D	52000	910000
Indeno[1,2,3-cd]pyrene		60000	U D	60000	910000
Benzo[ghi]perylene		44000	U D	44000	910000
Bis(2-chloroethyl)ether		46000	U D	46000	910000
bis (2-chloroisopropyl) ether		63000	U D	63000	910000

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorophenol	94	D	53 - 120
Phenol-d5	103	D	52 - 120
Nitrobenzene-d5	98	D	50 - 120
2-Fluorobiphenyl	106	D	50 - 120
2,4,6-Tribromophenol	34	D	51 - 120
Terphenyl-d14	111	D	55 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-2
Client Matrix: Waste

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Prep Method:	3580A	Prep Batch:	280-61401	Lab File ID:	Y9425.D
Dilution:	10			Initial Weight/Volume:	1.0922 g
Analysis Date:	04/09/2011 0001			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **0**

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

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-2
Client Matrix: Waste

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-61765	Instrument ID:	GCS_P3
Prep Method:	3580A	Prep Batch:	280-61400	Initial Weight/Volume:	1.0726 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/10/2011 0431			Injection Volume:	1 uL
Prep Date:	04/08/2011 1151			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		4.7	U	4.7	31
Aroclor 1221		15	U	15	44
Aroclor 1232		4.8	U	4.8	31
Aroclor 1242		8.5	U	8.5	31
Aroclor 1248		5.2	U	5.2	31
Aroclor 1254		5.1	U	5.1	31
Aroclor 1260		2.5	U	2.5	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	54	*	59 - 130
Tetrachloro-m-xylene	100		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61764	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-61244	Lab File ID:	26a041111.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	04/11/2011 1345			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		2120		1.4	4.5
Antimony		0.80	M	0.34	0.54
Arsenic		1.5		0.59	0.90
Barium		38.3		0.068	0.45
Beryllium		0.25	M	0.030	0.18
Boron		5.0		0.88	1.8
Cadmium		0.037	U	0.037	0.18
Calcium		98700		12.6	44.8
Chromium		218		0.052	0.18
Cobalt		0.74	B	0.090	0.90
Copper		2.7		0.19	0.90
Iron		2010		3.4	4.5
Lead		4.5		0.24	0.45
Magnesium		59300		3.3	17.9
Manganese		94.6		0.090	0.90
Molybdenum		1.1	B M	0.23	1.8
Nickel		18.9		0.11	3.6
Potassium		583		36.8	269
Selenium		1.8	M	0.77	0.90
Silicon		210		5.1	9.0
Silver		0.14	U	0.14	0.18
Sodium		510		52.9	108
Vanadium		83.1		0.084	1.8
Zinc		17.3	M	0.36	0.90

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-61751	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61547	Lab File ID:	25A5041111.asc
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0613			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1500				
Leach Date:	04/07/2011 2305				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.60	B	0.0020	1.0
Cadmium		0.0023	B	0.0020	0.10
Chromium		0.16	B	0.0030	0.50
Lead		0.013	U	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0054	B M C	0.0040	0.50

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-61755	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-61592	Lab File ID:	110411AD.txt
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1934			Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

DryWt Corrected: N

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61553	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-61335	Lab File ID:	110408AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	04/08/2011 1341			Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 1110				

DryWt Corrected: Y

Analyte	Result (mg/Kg)	Qualifier	MDL	RL
Mercury	0.0053	U N	0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

General Chemistry

Client Sample ID: **J1H078**

Lab Sample ID: 280-14325-1
Client Matrix: Solid

Date Sampled: 04/01/2011 1120
Date Received: 04/07/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.3		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-61319 Analysis Date: 04/08/2011 0822 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-61399					
LCS 280-61399/2-A	Lab Control Sample	T	Solid	5030B	
LCSD 280-61399/3-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 280-61399/1-A	Method Blank	T	Solid	5030B	
280-14325-1	J1H078	T	Solid	5030B	
280-14325-1MS	Matrix Spike	T	Solid	5030B	
280-14325-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
Analysis Batch:280-61758					
LCS 280-61399/2-A	Lab Control Sample	T	Solid	8260B	280-61399
LCSD 280-61399/3-A	Lab Control Sample Duplicate	T	Solid	8260B	280-61399
MB 280-61399/1-A	Method Blank	T	Solid	8260B	280-61399
280-14325-1	J1H078	T	Solid	8260B	280-61399
280-14325-1MS	Matrix Spike	T	Solid	8260B	280-61399
280-14325-1MSD	Matrix Spike Duplicate	T	Solid	8260B	280-61399

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-61285					
LCS 280-61285/2-B	Lab Control Sample	P	Solid	1311	
LB2 280-61285/1-B	TCLP SPLPW Leachate Blank	P	Solid	1311	
280-14325-1	J1H078	P	Solid	1311	
280-14325-1MS	Matrix Spike	P	Solid	1311	
280-14325-1MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 280-61401					
LCS 280-61401/2-A	Lab Control Sample	T	Waste	3580A	
MB 280-61401/1-A	Method Blank	T	Waste	3580A	
280-14325-2	J1H078	T	Waste	3580A	
280-14325-2MS	Matrix Spike	T	Waste	3580A	
280-14325-2MSD	Matrix Spike Duplicate	T	Waste	3580A	
Prep Batch: 280-61500					
LCS 280-61285/2-B	Lab Control Sample	P	Solid	3510C	280-61285
LB2 280-61285/1-B	TCLP SPLPW Leachate Blank	P	Solid	3510C	280-61285
280-14325-1	J1H078	P	Solid	3510C	280-61285
280-14325-1MS	Matrix Spike	P	Solid	3510C	280-61285
280-14325-1MSD	Matrix Spike Duplicate	P	Solid	3510C	280-61285
Analysis Batch:280-61698					
LCS 280-61401/2-A	Lab Control Sample	T	Waste	8270C	280-61401
MB 280-61401/1-A	Method Blank	T	Waste	8270C	280-61401
280-14325-2	J1H078	T	Waste	8270C	280-61401
280-14325-2MS	Matrix Spike	T	Waste	8270C	280-61401
280-14325-2MSD	Matrix Spike Duplicate	T	Waste	8270C	280-61401
Analysis Batch:280-61778					
LCS 280-61285/2-B	Lab Control Sample	P	Solid	8270C	280-61500
LB2 280-61285/1-B	TCLP SPLPW Leachate Blank	P	Solid	8270C	280-61500
280-14325-1	J1H078	P	Solid	8270C	280-61500
280-14325-1MS	Matrix Spike	P	Solid	8270C	280-61500
280-14325-1MSD	Matrix Spike Duplicate	P	Solid	8270C	280-61500

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-61400					
LCS 280-61400/2-A	Lab Control Sample	T	Waste	3580A	
MB 280-61400/1-A	Method Blank	T	Waste	3580A	
280-14325-2	J1H078	T	Waste	3580A	
280-14325-2MS	Matrix Spike	T	Waste	3580A	
280-14325-2MSD	Matrix Spike Duplicate	T	Waste	3580A	
Analysis Batch:280-61765					
LCS 280-61400/2-A	Lab Control Sample	T	Waste	8082	280-61400
MB 280-61400/1-A	Method Blank	T	Waste	8082	280-61400
280-14325-2	J1H078	T	Waste	8082	280-61400
280-14325-2MS	Matrix Spike	T	Waste	8082	280-61400
280-14325-2MSD	Matrix Spike Duplicate	T	Waste	8082	280-61400

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-61244					
LCS 280-61244/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-61244/1-A	Method Blank	T	Solid	3050B	
280-14325-1	J1H078	T	Solid	3050B	
280-14325-1DU	Duplicate	T	Solid	3050B	
280-14325-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-61285					
LCS 280-61285/2-C	Lab Control Sample	P	Solid	1311	
LCS 280-61285/2-E	Lab Control Sample	P	Solid	1311	
LB2 280-61285/1-C	TCLP SPLPW Leachate Blank	P	Solid	1311	
LB2 280-61285/1-E	TCLP SPLPW Leachate Blank	P	Solid	1311	
280-14325-1	J1H078	P	Solid	1311	
280-14325-1DU	Duplicate	P	Solid	1311	
280-14325-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-61335					
LCS 280-61335/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-61335/1-A	Method Blank	T	Solid	7471A	
280-14325-1	J1H078	T	Solid	7471A	
280-14325-1DU	Duplicate	T	Solid	7471A	
280-14325-1MS	Matrix Spike	T	Solid	7471A	
Prep Batch: 280-61547					
LCS 280-61285/2-C	Lab Control Sample	P	Solid	3010A	280-61285
LB2 280-61285/1-C	TCLP SPLPW Leachate Blank	P	Solid	3010A	280-61285
280-14325-1	J1H078	P	Solid	3010A	280-61285
280-14325-1DU	Duplicate	P	Solid	3010A	280-61285
280-14325-1MS	Matrix Spike	P	Solid	3010A	280-61285
Analysis Batch:280-61553					
LCS 280-61335/2-A	Lab Control Sample	T	Solid	7471A	280-61335
MB 280-61335/1-A	Method Blank	T	Solid	7471A	280-61335
280-14325-1	J1H078	T	Solid	7471A	280-61335
280-14325-1DU	Duplicate	T	Solid	7471A	280-61335
280-14325-1MS	Matrix Spike	T	Solid	7471A	280-61335
Prep Batch: 280-61592					
LCS 280-61285/2-E	Lab Control Sample	P	Solid	7470A	280-61285
LB2 280-61285/1-E	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-61285
280-14325-1	J1H078	P	Solid	7470A	280-61285
280-14325-1DU	Duplicate	P	Solid	7470A	280-61285
280-14325-1MS	Matrix Spike	P	Solid	7470A	280-61285

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-61751					
LCS 280-61285/2-C	Lab Control Sample	P	Solid	6010B	280-61547
LB2 280-61285/1-C	TCLP SPLPW Leachate Blank	P	Solid	6010B	280-61547
280-14325-1	J1H078	P	Solid	6010B	280-61547
280-14325-1DU	Duplicate	P	Solid	6010B	280-61547
280-14325-1MS	Matrix Spike	P	Solid	6010B	280-61547
Analysis Batch:280-61755					
LCS 280-61285/2-E	Lab Control Sample	P	Solid	7470A	280-61592
LB2 280-61285/1-E	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-61592
280-14325-1	J1H078	P	Solid	7470A	280-61592
280-14325-1DU	Duplicate	P	Solid	7470A	280-61592
280-14325-1MS	Matrix Spike	P	Solid	7470A	280-61592
Analysis Batch:280-61764					
LCS 280-61244/2-A	Lab Control Sample	T	Solid	6010B	280-61244
MB 280-61244/1-A	Method Blank	T	Solid	6010B	280-61244
280-14325-1	J1H078	T	Solid	6010B	280-61244
280-14325-1DU	Duplicate	T	Solid	6010B	280-61244
280-14325-1MS	Matrix Spike	T	Solid	6010B	280-61244

Report Basis
P = TCLP
T = Total

General Chemistry

Analysis Batch:280-61319					
280-14325-1	J1H078	T	Solid	D-2216	
280-14325-1DU	Duplicate	T	Solid	D-2216	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61399

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-61399/1-A	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-61399	Lab File ID:	J5940.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.02 g
Analysis Date:	04/08/2011 1109	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				
Leach Date:	N/A				

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	0.42	U	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
1,3-Dichlorobenzene	0.48	U	0.48	5.0
1,1-Dichloroethane	0.21	U	0.21	5.0
1,2-Dichloroethane	0.70	U	0.70	5.0
trans-1,2-Dichloroethene	0.39	U	0.39	2.5
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	2.14	J	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)	102	58 - 140
Toluene-d8 (Surr)	109	80 - 126
4-Bromofluorobenzene (Surr)	117	76 - 127
Dibromofluoromethane (Surr)	112	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank TICs- Batch: 280-61399

Cas Number	Analyte	RT	Est. Result	Qual
60-29-7	Ethyl ether	3.61	0.814	J N J
	Tentatively Identified Compound		None	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-61399

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-61399/2-A	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-61399	Lab File ID:	J5937.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2011 0949	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-61399/3-A	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-61399	Lab File ID:	J5938.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2011 1012	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	109	105	76 - 120	4	20		
Bromodichloromethane	102	101	74 - 125	1	20		
Carbon tetrachloride	111	107	69 - 147	3	20		
Chlorobenzene	109	104	74 - 120	4	20		
Chloroform	103	100	77 - 125	3	20		
1,3-Dichlorobenzene	105	103	74 - 120	3	20		
1,1-Dichloroethane	104	101	74 - 120	3	20		
trans-1,2-Dichloroethene	113	109	80 - 127	3	20		
1,1-Dichloroethene	126	121	77 - 143	4	20		
1,2-Dichloropropane	102	101	74 - 120	1	20		
Ethylbenzene	109	106	78 - 120	2	20		
Methylene Chloride	98	97	76 - 137	2	21		
Tetrachloroethene	112	109	71 - 120	3	20		
Toluene	109	105	72 - 120	4	20		
1,1,1-Trichloroethane	110	105	67 - 143	4	20		
Trichloroethene	108	106	78 - 120	2	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101	100	58 - 140
Toluene-d8 (Surr)	119	114	80 - 126
4-Bromofluorobenzene (Surr)	119	114	76 - 127
Dibromofluoromethane (Surr)	110	107	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61399

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-14325-1	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-61399	Lab File ID:	J5948.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	3.278 g
Analysis Date:	04/08/2011 1418			Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				
Leach Date:	N/A				

MSD Lab Sample ID:	280-14325-1	Analysis Batch:	280-61758	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-61399	Lab File ID:	J5949.D
Dilution:	1 0	Leach Batch:	N/A	Initial Weight/Volume:	3.247 g
Analysis Date:	04/08/2011 1441			Final Weight/Volume:	5 mL
Prep Date:	04/08/2011 0600				
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	53	66	76 - 120	23	20	T	T *
Bromodichloromethane	42	51	74 - 125	19	20		
Carbon tetrachloride	64	75	69 - 147	17	20	T	
Chlorobenzene	35	43	74 - 120	22	20	T	T *
Chloroform	61	72	77 - 125	18	20	T	T
1,3-Dichlorobenzene	37	37	74 - 120	2	20	T	T
1,1-Dichloroethane	76	85	74 - 120	12	20		
trans-1,2-Dichloroethene	75	89	80 - 127	18	20	T	
1,1-Dichloroethene	102	110	77 - 143	8	20		
1,2-Dichloropropane	49	58	74 - 120	18	20	T	T
Ethylbenzene	35	45	78 - 120	26	20	T	T *
Methylene Chloride	82	87	76 - 137	6	21		
Tetrachloroethene	40	54	71 - 120	29	20	T	T *
Toluene	33	43	72 - 120	27	20	T	T *
1,1,1-Trichloroethane	69	79	67 - 143	15	20		
Trichloroethene	41	53	78 - 120	26	20	T	T *

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	125		124		58 - 140
Toluene-d8 (Surr)	137	*	146	*	80 - 126
4-Bromofluorobenzene (Surr)	154	*	169	*	76 - 127
Dibromofluoromethane (Surr)	126	*	125	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61401

Method: 8270C
Preparation: 3580A

Lab Sample ID:	MB 280-61401/1-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Waste	Prep Batch:	280-61401	Lab File ID:	Y9408.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/08/2011 1817	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Phenol	5400	U	5400	99000
2-Chlorophenol	6300	U	6300	99000
1,3-Dichlorobenzene	3600	U	3600	99000
1,2-Dichlorobenzene	6600	U	6600	99000
2-Methylphenol	3900	U	3900	99000
1,4-Dichlorobenzene	4100	U	4100	99000
3 & 4 Methylphenol	9900	U	9900	99000
N-Nitrosodi-n-propylamine	9300	U	9300	99000
Hexachloroethane	6400	U	6400	99000
Isophorone	5100	U	5100	99000
Nitrobenzene	6600	U	6600	99000
2,4-Dimethylphenol	20000	U	20000	99000
2-Nitrophenol	3000	U	3000	99000
Bis(2-chloroethoxy)methane	6900	U	6900	99000
2,4-Dichlorophenol	3000	U	3000	99000
1,2,4-Trichlorobenzene	8400	U	8400	99000
Naphthalene	9300	U	9300	99000
4-Chloroaniline	25000	U	25000	99000
Hexachlorobutadiene	3000	U	3000	99000
4-Chloro-3-methylphenol	20000	U	20000	99000
2-Methylnaphthalene	5700	U	5700	99000
Hexachlorocyclopentadiene	15000	U	15000	480000
2,4,6-Trichlorophenol	3000	U	3000	99000
2,4,5-Trichlorophenol	3000	U	3000	99000
2-Chloronaphthalene	3000	U	3000	99000
2-Nitroaniline	15000	U	15000	480000
Dimethyl phthalate	6900	U	6900	99000
2,6-Dinitrotoluene	8400	U	8400	99000
Acenaphthylene	5100	U	5100	99000
3-Nitroaniline	22000	U	22000	480000
Acenaphthene	3000	U	3000	99000
2,4-Dinitrophenol	99000	U	99000	480000
4-Nitrophenol	29000	U	29000	480000
Dibenzofuran	6000	U	6000	99000
2,4-Dinitrotoluene	20000	U	20000	99000
Diethyl phthalate	7800	U	7800	200000
4-Chlorophenyl phenyl ether	6300	U	6300	99000
Fluorene	5400	U	5400	99000
4-Nitroaniline	22000	U	22000	480000
4,6-Dinitro-2-methylphenol	99000	U	99000	480000
N-Nitrosodiphenylamine	6300	U	6300	99000
4-Bromophenyl phenyl ether	5700	U	5700	99000
Hexachlorobenzene	8700	U	8700	99000
Pentachlorophenol	99000	U	99000	480000
Phenanthrene	5100	U	5100	99000

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61401

Method: 8270C
Preparation: 3580A

Lab Sample ID:	MB 280-61401/1-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Waste	Prep Batch:	280-61401	Lab File ID:	Y9408.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/08/2011 1817	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Anthracene	5100	U	5100	99000
Carbazole	11000	U	11000	99000
Di-n-butyl phthalate	8700	U	8700	99000
Fluoranthene	11000	U	11000	99000
Pyrene	3600	U	3600	99000
Butyl benzyl phthalate	13000	U	13000	99000
Bis(2-ethylhexyl) phthalate	14000	U	14000	99000
3,3'-Dichlorobenzidine	27000	U	27000	200000
Benzo[a]anthracene	6000	U	6000	99000
Chrysene	8100	U	8100	99000
Di-n-octyl phthalate	4300	U	4300	99000
Benzo[b]fluoranthene	7900	U	7900	99000
Benzo[k]fluoranthene	12000	U	12000	99000
Benzo[a]pyrene	6000	U	6000	99000
Dibenz(a,h)anthracene	5700	U	5700	99000
Indeno[1,2,3-cd]pyrene	6600	U	6600	99000
Benzo[ghi]perylene	4800	U	4800	99000
Bis(2-chloroethyl)ether	5000	U	5000	99000
bis (2-chloroisopropyl) ether	6900	U	6900	99000

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	103	53 - 120
Phenol-d5	103	52 - 120
Nitrobenzene-d5	99	50 - 120
2-Fluorobiphenyl	100	50 - 120
2,4,6-Tribromophenol	88	51 - 120
Terphenyl-d14	105	55 - 120

Method Blank TICs- Batch: 280-61401

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	11.33	ND	N J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Lab Control Sample - Batch: 280-61401

Method: 8270C
Preparation: 3580A

Lab Sample ID:	LCS 280-61401/2-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Waste	Prep Batch:	280-61401	Lab File ID:	Y9409.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/08/2011 1837	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	1500000	1490000	100	54 - 120	
2-Chlorophenol	1500000	1470000	98	53 - 120	
1,4-Dichlorobenzene	1000000	962000	96	46 - 120	
N-Nitrosodi-n-propylamine	1000000	1010000	101	51 - 120	
1,2,4-Trichlorobenzene	1000000	894000	89	50 - 120	
4-Chloro-3-methylphenol	1500000	1450000	97	57 - 120	
Acenaphthene	1000000	970000	97	52 - 120	
4-Nitrophenol	1500000	1290000	86	41 - 120	
2,4-Dinitrotoluene	1000000	987000	99	53 - 120	
Pentachlorophenol	1500000	1330000	89	30 - 120	
Pyrene	1000000	1030000	103	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	102	53 - 120
Phenol-d5	103	52 - 120
Nitrobenzene-d5	100	50 - 120
2-Fluorobiphenyl	99	50 - 120
2,4,6-Tribromophenol	93	51 - 120
Terphenyl-d14	104	55 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61401

Method: 8270C
Preparation: 3580A

MS Lab Sample ID:	280-14325-2	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Waste	Prep Batch:	280-61401	Lab File ID:	Y9426.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0408 g
Analysis Date:	04/09/2011 0021			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14325-2	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Waste	Prep Batch:	280-61401	Lab File ID:	Y9427.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0347 g
Analysis Date:	04/09/2011 0041			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1156			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	105	110	54 - 120	5	30	D	D
2-Chlorophenol	93	101	53 - 120	9	30	D	D
1,4-Dichlorobenzene	101	104	46 - 120	3	30	D	D
N-Nitrosodi-n-propylamine	110	113	51 - 120	3	30	D	D
1,2,4-Trichlorobenzene	95	94	50 - 120	0	30	J D	J D
4-Chloro-3-methylphenol	91	91	57 - 120	1	30	D	D
Acenaphthene	101	103	52 - 120	2	30	D	D
4-Nitrophenol	0	0	41 - 120	NC	30	U D	U D
2,4-Dinitrotoluene	0	24	53 - 120	NC	30	U D	J D
Pentachlorophenol	0	0	30 - 120	NC	30	U D	U D
Pyrene	112	114	50 - 120	2	38	D	D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2-Fluorophenol	94	D	99	D	53 - 120
Phenol-d5	105	D	110	D	52 - 120
Nitrobenzene-d5	100	D	101	D	50 - 120
2-Fluorobiphenyl	101	D	106	D	50 - 120
2,4,6-Tribromophenol	36	D	38	D	51 - 120
Terphenyl-d14	111	D	113	D	55 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

TCLP SPLPW Leachate Blank - Batch: 280-61500

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LB2 280-61285/1-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61500	Lab File ID:	G6_1990.D
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	202 mL
Analysis Date:	04/11/2011 1706	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	Result	Qual	MDL	RL
2-Methylphenol	0.0049	U	0.0049	0.050
1,4-Dichlorobenzene	0.0016	U	0.0016	0.020
3-Methylphenol & 4-Methylphenol	0.00133	J	0.0012	0.050
Hexachloroethane	0.010	U	0.010	0.050
Nitrobenzene	0.0040	U	0.0040	0.050
Pyridine	0.0056	U	0.0056	0.099
Hexachlorobutadiene	0.016	U	0.016	0.050
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.050
2,4-Dinitrotoluene	0.0082	U	0.0082	0.050
Hexachlorobenzene	0.0033	U	0.0033	0.050
Pentachlorophenol	0.0050	U	0.0050	0.25

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	76	50 - 120
Phenol-d5	77	47 - 120
Nitrobenzene-d5	85	51 - 120
2-Fluorobiphenyl	80	49 - 120
2,4,6-Tribromophenol	92	51 - 120
Terphenyl-d14	96	56 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Lab Control Sample - Batch: 280-61500

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LCS 280-61285/2-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61500	Lab File ID:	G6_1991.D
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	202 mL
Analysis Date:	04/11/2011 1725	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Methylphenol	0.248	0.221	89	45 - 120	
1,4-Dichlorobenzene	0.248	0.200	81	36 - 120	
3-Methylphenol & 4-Methylphenol	0.495	0.423	85	44 - 120	
Hexachloroethane	0.248	0.201	81	35 - 120	
Nitrobenzene	0.248	0.221	89	50 - 120	
Pyridine	0.248	0.0873	35	10 - 121	J
Hexachlorobutadiene	0.248	0.204	82	35 - 120	
2,4,6-Trichlorophenol	0.248	0.218	88	43 - 120	
2,4,5-Trichlorophenol	0.248	0.211	85	46 - 120	
2,4-Dinitrotoluene	0.0990	0.0648	65	36 - 120	
Hexachlorobenzene	0.0990	0.0882	89	52 - 120	
Pentachlorophenol	0.495	0.454	92	39 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	79	50 - 120
Phenol-d5	80	47 - 120
Nitrobenzene-d5	89	51 - 120
2-Fluorobiphenyl	76	49 - 120
2,4,6-Tribromophenol	91	51 - 120
Terphenyl-d14	96	56 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61500

Method: 8270C
Preparation: 3510C
TCLP

MS Lab Sample ID:	280-14325-1	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61500	Lab File ID:	G6_2009.D
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	202 mL
Analysis Date:	04/11/2011 2304			Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

MSD Lab Sample ID:	280-14325-1	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61500	Lab File ID:	G6_2010.D
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	206 mL
Analysis Date:	04/11/2011 2322			Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2-Methylphenol	86	87	45 - 120	1	30		
1,4-Dichlorobenzene	76	75	36 - 120	3	30		
3-Methylphenol & 4-Methylphenol	83	84	44 - 120	1	30		
Hexachloroethane	73	71	35 - 120	5	30		
Nitrobenzene	82	84	50 - 120	0	30		
Pyridine	61	66	10 - 121	7	30		
Hexachlorobutadiene	75	75	35 - 120	2	30		
2,4,6-Trichlorophenol	87	92	43 - 120	4	30		
2,4,5-Trichlorophenol	83	89	46 - 120	5	30		
2,4-Dinitrotoluene	69	77	36 - 120	9	30		
Hexachlorobenzene	83	87	52 - 120	3	30		
Pentachlorophenol	36	121	39 - 120	108	30	J T	T *

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorophenol	75	77	50 - 120
Phenol-d5	78	79	47 - 120
Nitrobenzene-d5	83	87	51 - 120
2-Fluorobiphenyl	74	82	49 - 120
2,4,6-Tribromophenol	88	98	51 - 120
Terphenyl-d14	89	95	56 - 120

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61400

Method: 8082
Preparation: 3580A

Lab Sample ID:	MB 280-61400/1-A	Analysis Batch:	280-61765	Instrument ID:	GCS_P3
Client Matrix:	Waste	Prep Batch:	280-61400	Lab File ID:	087F8701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/10/2011 0035	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1151			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	5.1	U	5.1	33
Aroclor 1221	16	U	16	47
Aroclor 1232	5.1	U	5.1	33
Aroclor 1242	9.1	U	9.1	33
Aroclor 1248	5.6	U	5.6	33
Aroclor 1254	5.5	U	5.5	33
Aroclor 1260	2.6	U	2.6	33

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	94	59 - 130
Tetrachloro-m-xylene	102	53 - 128

Lab Control Sample - Batch: 280-61400

Method: 8082
Preparation: 3580A

Lab Sample ID:	LCS 280-61400/2-A	Analysis Batch:	280-61765	Instrument ID:	GCS_P3
Client Matrix:	Waste	Prep Batch:	280-61400	Lab File ID:	088F8801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/10/2011 0056	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1151			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	2000	2130	106	54 - 132	
Aroclor 1260	2000	2130	106	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	99	59 - 130
Tetrachloro-m-xylene	104	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61400

Method: 8082
Preparation: 3580A

MS Lab Sample ID:	280-14325-2	Analysis Batch:	280-61765	Instrument ID:	GCS_P3
Client Matrix:	Waste	Prep Batch:	280-61400	Lab File ID:	099F9901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0767 g
Analysis Date:	04/10/2011 0452			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1151			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14325-2	Analysis Batch:	280-61765	Instrument ID:	GCS_P3
Client Matrix:	Waste	Prep Batch:	280-61400	Lab File ID:	100FA001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0494 g
Analysis Date:	04/10/2011 0514			Final Weight/Volume:	10000 uL
Prep Date:	04/08/2011 1151			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	117	129	54 - 132	13	36		
Aroclor 1260	67	70	62 - 129	8	44		

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Decachlorobiphenyl	53	*	56	*	59 - 130
Tetrachloro-m-xylene	102		106		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61244

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-61244/1-A	Analysis Batch:	280-61764	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-61244	Lab File ID:	26a041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/11/2011 1341	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.076	U	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
Magnesium	3.7	U	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Lab Control Sample - Batch: 280-61244

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-61244/2-A	Analysis Batch:	280-61764	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-61244	Lab File ID:	26a041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/11/2011 1343	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	196.8	98	82 - 116	
Antimony	50.0	50.54	101	82 - 110	
Arsenic	100	102.0	102	85 - 110	
Barium	200	199.4	100	87 - 112	
Beryllium	5.00	4.90	98	84 - 114	
Boron	100	94.93	95	81 - 110	
Cadmium	10.0	9.78	98	87 - 110	
Calcium	5000	4943	99	82 - 114	
Chromium	20.0	20.37	102	84 - 114	
Cobalt	50.0	49.94	100	87 - 110	
Copper	25.0	25.12	100	88 - 110	
Iron	100	101.8	102	87 - 120	
Lead	50.0	51.69	103	86 - 110	
Magnesium	5000	4883	98	90 - 110	
Manganese	50.0	49.36	99	88 - 110	
Molybdenum	100	104.7	105	86 - 110	
Nickel	50.0	50.62	101	87 - 110	
Potassium	5000	5042	101	89 - 110	
Selenium	200	198.0	99	83 - 110	
Silicon	1000	189.0	19	10 - 70	
Silver	5.00	4.95	99	87 - 114	
Sodium	5000	5118	102	90 - 112	
Vanadium	50.0	50.18	100	88 - 110	
Zinc	50.0	49.12	98	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike - Batch: 280-61244

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61764	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-61244	Lab File ID:	26a041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	04/11/2011 1354	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2120		189	5963	2027	50 - 200	4
Antimony	0.80		47.3	28.80	59	20 - 200	
Arsenic	1.5		94.7	98.72	103	76 - 111	
Barium	38.3		189	222.9	97	52 - 159	
Beryllium	0.25		4.73	4.60	92	72 - 105	
Boron	5.0		94.7	86.52	86	75 - 107	
Cadmium	0.037	U	9.47	9.23	98	40 - 130	
Calcium	98700		4730	100500	36	43 - 165	4
Chromium	218		18.9	227.7	50	70 - 200	4
Cobalt	0.74	B	47.3	43.82	91	72 - 106	
Copper	2.7		23.7	26.06	99	37 - 187	
Iron	2010		94.7	2891	926	70 - 200	4
Lead	4.5		47.3	48.15	92	70 - 200	
Magnesium	59300		4730	63090	81	64 - 145	4
Manganese	94.6		47.3	147.6	112	40 - 200	
Molybdenum	1.1	B	94.7	94.86	99	75 - 103	
Nickel	18.9		47.3	61.44	90	61 - 126	
Potassium	583		4730	5838	111	56 - 172	
Selenium	1.8		189	186.6	98	76 - 104	
Silicon	210		947	540.1	35	20 - 200	
Silver	0.14	U	4.73	4.85	102	75 - 141	
Sodium	510		4730	5274	101	78 - 111	
Vanadium	83.1		47.3	129.2	97	50 - 169	
Zinc	17.3		47.3	82.80	138	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Duplicate - Batch: 280-61244

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61764	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-61244	Lab File ID:	26a041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.04 g
Analysis Date:	04/11/2011 1351	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	2120		2170	2	40	
Antimony	0.80		0.468	52	40	B M
Arsenic	1.5		1.45	2	30	
Barium	38.3		42.92	11	30	
Beryllium	0.25		0.162	43	30	B M
Boron	5.0		4.74	6	30	
Cadmium	0.037	U	0.040	NC	30	U
Calcium	98700		97680	1	30	
Chromium	218		226.6	4	40	
Cobalt	0.74	B	0.787	6	30	B
Copper	2.7		2.82	3	30	
Iron	2010		2279	12	40	
Lead	4.5		4.30	4	40	
Magnesium	59300		58430	1	30	
Manganese	94.6		100.5	6	40	
Molybdenum	1.1	B	0.764	40	30	B M
Nickel	18.9		18.59	2	30	
Potassium	583		545.7	7	40	
Selenium	1.8		0.967	58	30	B M
Silicon	210		203.5	3	40	
Silver	0.14	U	0.16	NC	30	U
Sodium	510		583.5	13	30	
Vanadium	83.1		82.26	1	30	
Zinc	17.3		181.7	165	40	M

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

TCLP SPLPW Leachate Blank - Batch: 280-61547

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB2 280-61285/1-C	Analysis Batch:	280-61751	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61547	Lab File ID:	25A5041111.asc
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0608	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1500				
Leach Date:	04/07/2011 2305				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.0221	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Lead	0.013	U	0.013	0.50
Selenium	0.024	U	0.024	0.10
Silver	0.00660	B	0.0040	0.50

Lab Control Sample - Batch: 280-61547

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-61285/2-C	Analysis Batch:	280-61751	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61547	Lab File ID:	25A5041111.asc
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0611	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1500				
Leach Date:	04/07/2011 2305				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	3.51	88	80 - 120	
Barium	12.0	12.64	105	80 - 120	
Cadmium	1.10	1.05	95	80 - 120	
Chromium	5.20	5.17	99	80 - 120	
Lead	5.50	4.97	90	80 - 120	
Selenium	3.00	2.86	95	80 - 120	
Silver	1.05	1.06	101	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Matrix Spike - Batch: 280-61547

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61751	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61547	Lab File ID:	25A5041111.asc
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0620	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1500				
Leach Date:	04/07/2011 2305				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	3.49	87	80 - 120	
Barium	0.60	B	12.0	12.84	102	80 - 120	
Cadmium	0.0023	B	1.10	1.04	94	80 - 120	
Chromium	0.16	B	5.20	5.08	95	80 - 120	
Lead	0.013	U	5.50	4.63	84	80 - 120	
Selenium	0.024	U	3.00	2.87	96	80 - 120	
Silver	0.0054	B	1.05	1.07	102	80 - 120	

Duplicate - Batch: 280-61547

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61751	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61547	Lab File ID:	25A5041111.asc
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0618	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1500				
Leach Date:	04/07/2011 2305				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.022	NC	20	U
Barium	0.60	B	0.584	3	20	B
Cadmium	0.0023	B	0.00215	7	20	B
Chromium	0.16	B	0.153	4	20	B
Lead	0.013	U	0.013	NC	20	U
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0054	B	0.00740	30	20	B M

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

TCLP SPLPW Leachate Blank - Batch: 280-61592

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB2 280-61285/1-E	Analysis Batch:	280-61755	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61592	Lab File ID:	110411AD.txt
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1929	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-61592

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-61285/2-E	Analysis Batch:	280-61755	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61592	Lab File ID:	110411AD.txt
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1932	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00504	101	90 - 116	

Matrix Spike - Batch: 280-61592

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61755	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61592	Lab File ID:	110411AD.txt
Dilution:	1.0	Leach Batch:	280-61285	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1939	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00501	100	90 - 116	

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Duplicate - Batch: 280-61592

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61755	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61592	Lab File ID:	110411AD.txt
Dilution:	1 0	Leach Batch:	280-61285	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1936	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

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

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Method Blank - Batch: 280-61335

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-61335/1-A	Analysis Batch:	280-61553	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61335	Lab File ID:	110408AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/08/2011 1337	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 1110				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-61335

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-61335/2-A	Analysis Batch:	280-61553	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61335	Lab File ID:	110408AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/08/2011 1339	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 1110				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.416	100	87 - 111	

Matrix Spike - Batch: 280-61335

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61553	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61335	Lab File ID:	110408AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/08/2011 1346	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 1110				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0053	U	0.422	0.342	81	87 - 111	N

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Duplicate - Batch: 280-61335

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61553	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61335	Lab File ID:	110408AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.61 g
Analysis Date:	04/08/2011 1344	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 1110				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0053	U	0.0055	NC	20	U

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14325-1
Sdg Number: JP0154

Duplicate - Batch: 280-61319

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-14325-1	Analysis Batch:	280-61319	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:	04/08/2011 0822	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	1.3	1.2	9	20	

5.6 oc
3.4

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-134	Page 1 of 1
Collector: Blankingship / Lucas	Company Contact: Joan Kessner; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: ~~9L~~ 9D ~~JRD 4/1/11~~; Data Turnaround: ~~21~~ 7 Days
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 600-30 (100D-AN-08-042)	SAF No.: RC-073	
Ice Chest No.: WCH-08-070 ~~JRD 3/28/11~~ ~~JOA~~	Field Logbook No.: EL-1657; COA: R600302600	Method of Shipment: FedEx	
Shipped To: TestAmerica Incorporated, ~~Richland~~ Denver ~~JRD 3/28/11~~	Offsite Property No.: NA	Bill of Lading/Air Bill No.: 7946 2016 3763	

POSSIBLE SAMPLE HAZARDS/REMARKS

~~Radioactive~~ ~~JRD 3/28/11~~
Radioactive CDOT limits JEB 4-6-11

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None
Type of Container	G/P	G	G/P	G	aG	aG	aG	G/P	G/P	G/P
No. of Container(s)	1	1	1	1	1	~~1~~ 2	1	1	1	1
Volume	~~60mL~~ 250mL	~~125mL~~ 250mL	~~60mL~~	~~60mL~~	~~60mL~~ 250mL	~~60mL~~ 250mL	~~125mL~~ 250mL	500mL	60mL	60g
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	~~IC Anions - 9056 Modified; NO2/NO3 - 353.1;~~ SH - 9045 JRD 3/28/11	Total Cyanide - 9010; Sulfides - 9030 JRD 3/28/11	Semi-VOA - 8270A (TCL)	PCBs - 8082, ~~Pesticides~~ JRD 3/28/11 VOA - 8260	TCLP Semi-VOA - 1311/8270A	See item (3) in Special Instructions. JRD 3/28/11	Gross Alpha & Gross Beta	RCF GEA Shipping Screen

Sample No.	Matrix *	Sample Date	Sample Time										
J1H078	OTHER	4/1/11	1120	✓	✓			✓	✓	✓			

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kevin Lucas	4-1-11 1330	JR DeBuigne JR DeBuigne	1770 4/1/11
JR DeBuigne JR DeBuigne	4/4/11 1700	~~Received By/Stored In~~ J. E. Bahl	1700 4-4-11
~~Relinquished By/Removed From~~ J. E. Bahl WCH	1245 4-6-11	FED EX	
		Received By/Stored In: Amy Bindl	4/7/11 0930

SPECIAL INSTRUCTIONS

Screen for oxidizer with Spilfyter test strip.

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}
(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY ER
DATE 4-6-11

JP0154

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 ✓ 60107E -5.1.0

Analytical Due:

Report Due: 4/14/11 (Rush 5.5) TAT)

Sample Check-in List

Date/Time Received: 4/7/11 0930 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: JP0154 NA[ ] SAF #: RC-073 NA [ ]

Job Number: 14325 Chain of Custody # RC-073-134

Shipping Container ID: AFS-04-121, WCH-08-070 Air Bill # 794620163763, 794620164050

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: 5.6°, 3.4° NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [✓] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] Date: 4/7/1

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 4/8/11

From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

FedEx Express

J11151102250225

Ship Date: 06APR11
Act/Wgt: 69.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

Ref #
Invoice #
PO #
Dept #

1 of 2

TRK# 0201 7946 2016 3763

MASTER

XH WHHA

THU - 07 APR A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

50DG3/26A8/7EFB

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From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 06APR11
ActWgt: 77.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

2 of 2

THU - 07 APR A1
PRIORITY OVERNIGHT

MPS# 7946 2016 4050
0263
Mstr# 7946 2016 3763 0201

XH WHHA

80002
CO-US
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50DG3/26A8/7EFB

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