0095598

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

RECEIVED
APR 27 2011
EDMC

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 4/20/11
INITIAL/DATE

COMMENTS:

SDG JP0153 SAF RC-073

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 118-D-3 (100D-AN-07-046)

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 63 *Pages*

Report No.: 46235

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.
JP0153	RC-073	J1H066	J1D070437-2	MGNGG1AD	9MGNGG10	1097254
		J1H066	J1D070437-2	MGNGG1AA	9MGNGG10	1097256
		J1H066	J1D070437-2	MGNGG1AC	9MGNGG10	1097257
		J1H067	J1D070443-1	MGNG31AD	9MGNG310	1097254
		J1H067	J1D070443-1	MGNG31AA	9MGNG310	1097256
		J1H067	J1D070443-1	MGNG31AC	9MGNG310	1097257
		J1H072	J1D070427-1	MGNE91AD	9MGNE910	1097254
		J1H072	J1D070427-1	MGNE91AA	9MGNE910	1097256
		J1H072	J1D070427-1	MGNE91AC	9MGNE910	1097257
		J1H074	J1D070437-1	MGNF91AD	9MGNF910	1097254
		J1H074	J1D070437-1	MGNF92AA	9MGNF920	1103384
		J1H074	J1D070437-1	MGNF92AC	9MGNF920	1103387

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	:	Four (4)
Sample Type	:	Other
SDG Number	:	JP0153
Data Deliverable	:	7– Day / Summary

CASE NARRATIVE

I. Introduction

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

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1H072	MGNE9	OTHER	04/06/11
J1H074	MGNF9	OTHER	04/06/11
J1H066	MGNGG	OTHER	04/06/11
J1H067	MGNG3	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 final weight for sample J1H074 exceeded the acceptance criteria. The sample was successfully reanalyzed in batch 1103384 using a smaller sample aliquot size. All the other samples in the original batch met the acceptance criteria. Except as noted; the LCS, batch blank, samples and sample duplicate (J1H067) results are within contractual requirements.

Gross Beta by method RL-GPC-001:
The final weight for sample J1H074 and the sample duplicate (J1H074) exceeded the acceptance criteria. They were successfully reanalyzed in batch 1103387 using a smaller sample aliquot size. All other samples in the original batch met the acceptance criteria. Except as noted; the LCS, batch blank, samples and sample duplicate (J1H074) results are within contractual requirements.

Gamma Spec by method RL-GAM-001 :
There was insufficient volume for a duplicate. Sample J1H072 was recounted on a different detector for the duplicate (J1H072 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, samples and sample duplicate (J1H072) 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. : 46235 **SDG No:** JP0153

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1097254 GAMMA_GS									
J1H066									
	MGNGG1AD	AMERICIUM 241	-2.16E-02 +- 1.6E-01	U	pCi/g		2.66E-01		
		CO-60	2.76E-01 +- 2.0E-01	U	pCi/g		3.79E-01	5.00E-02	
		CS-137	1.03E+00 +- 3.7E-01		pCi/g		2.90E-01	1.00E-01	
		EU-152	7.86E-01 +- 4.4E-01	U	pCi/g		7.53E-01	1.00E-01	
		EU-154	1.57E+01 +- 2.4E+00		pCi/g		7.43E-01	1.00E-01	
		EU-155	1.25E+00 +- 5.0E-01		pCi/g		4.84E-01	1.00E-01	
J1H067									
	MGNG31AD	AMERICIUM 241	-4.03E-02 +- 8.3E-02	U	pCi/g		1.38E-01		
		CO-60	2.44E-01 +- 4.3E-02		pCi/g		2.71E-02	5.00E-02	
		CS-137	4.55E-01 +- 7.3E-02		pCi/g		2.99E-02	1.00E-01	
		EU-152	1.24E-02 +- 8.0E-02	U	pCi/g		9.52E-02	1.00E-01	
		EU-154	2.57E-01 +- 9.3E-02	U	pCi/g		1.46E-01	1.00E-01	
		EU-155	-4.57E-02 +- 6.3E-02	U	pCi/g		1.02E-01	1.00E-01	
J1H072									
	MGNE91AD	AMERICIUM 241	-2.28E-01 +- 2.2E-01	U	pCi/g		3.37E-01		
		CO-60	4.91E-02 +- 6.1E-02	U	pCi/g		1.24E-01	5.00E-02	
		CS-137	3.74E-02 +- 4.9E-02	U	pCi/g		9.27E-02	1.00E-01	
		EU-152	-1.80E-02 +- 1.1E-01	U	pCi/g		1.86E-01	1.00E-01	
		EU-154	7.25E-02 +- 1.6E-01	U	pCi/g		3.15E-01	1.00E-01	
		EU-155	1.75E-02 +- 9.2E-02	U	pCi/g		1.63E-01	1.00E-01	
J1H072 DUP									
	MGNE91AE	AMERICIUM 241	-4.68E-02 +- 8.2E-02	U	pCi/g		1.36E-01		-131.9
		CO-60	-1.99E-02 +- 9.2E-02	U	pCi/g		1.64E-01	5.00E-02	472.4
		CS-137	5.46E-02 +- 8.5E-02	U	pCi/g		1.59E-01	1.00E-01	37.4
		EU-152	-9.50E-02 +- 2.3E-01	U	pCi/g		3.89E-01	1.00E-01	-136.1
		EU-154	-1.90E-01 +- 2.9E-01	U	pCi/g		4.76E-01	1.00E-01	-445.9
		EU-155	-2.93E-03 +- 1.4E-01	U	pCi/g		2.31E-01	1.00E-01	280.1
J1H074									
	MGNF91AD	AMERICIUM 241	1.84E-01 +- 1.9E-01	U	pCi/g		3.53E-01		
		CO-60	1.45E-03 +- 5.2E-02	U	pCi/g		9.65E-02	5.00E-02	
		CS-137	4.38E-02 +- 4.6E-02	U	pCi/g		8.79E-02	1.00E-01	
		EU-152	-4.24E-02 +- 9.2E-02	U	pCi/g		1.54E-01	1.00E-01	
		EU-154	1.09E-01 +- 1.3E-01	U	pCi/g		2.66E-01	1.00E-01	
		EU-155	2.13E-03 +- 8.0E-02	U	pCi/g		1.40E-01	1.00E-01	
1097256 9310_ALPHABETA_GPC									
J1H066									
	MGNGG1AA	ALPHA	6.06E+00 +- 1.3E+00		pCi/g	100%	1.31E-01	1.00E+01	

TestAmerica **RPD** - Relative Percent Difference.

rptSTLRchSaSummary2 V5.2.12 A2002

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.

Sample Results Summary

TestAmerica TARL

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

Date: 18-Apr-11

Report No. : 46235

SDG No: JP0153

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1097256 9310_ALPHABETA_GPC									
	J1H067								
	MGNG31AA	ALPHA	2.59E-01 +- 1.1E-01		pCi/g	100%	1.03E-01	1.00E+01	
	J1H067 DUP								
	MGNG31AE	ALPHA	8.86E-01 +- 2.5E-01		pCi/g	100%	1.24E-01	1.00E+01	109.4
	J1H072								
	MGNE91AA	ALPHA	2.03E-02 +- 3.2E-02	U	pCi/g	100%	5.47E-02	1.00E+01	
1097257 9310_ALPHABETA_GPC									
	J1H066								
	MGNGG1AC	BETA	1.30E+01 +- 1.8E+00		pCi/g	100%	4.06E-01	1.50E+01	
	J1H067								
	MGNG31AC	BETA	1.56E+00 +- 3.6E-01		pCi/g	100%	3.90E-01	1.50E+01	
	J1H072								
	MGNE91AC	BETA	3.73E-01 +- 2.4E-01		pCi/g	100%	3.65E-01	1.50E+01	
1103384 9310_ALPHABETA_GPC									
	J1H074								
	MGNF92AA	ALPHA	-9.94E-01 +- 9.3E-01	U	pCi/g	100%	2.15E+00	1.00E+01	
1103387 9310_ALPHABETA_GPC									
	J1H074								
	MGNF92AC	BETA	1.31E+00 +- 1.1E+00	U	pCi/g	100%	2.09E+00	1.50E+01	
	J1H074 DUP								
	MGNF92AE	BETA	1.69E+00 +- 1.2E+00	U	pCi/g	100%	2.23E+00	1.50E+01	24.9

No. of Results: 40

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

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 18-Apr-11

Report No. : 46235

SDG No.: JP0153

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
GAMMA_GS								
1097254 BLANK QC,								
MGN301AA	AMERICIUM 241	-4.10E-02 +- 4.4E-02	U	pCi/g				7.25E-02
	CO-60	2.40E-03 +- 1.1E-02	U	pCi/g				2.10E-02
	CS-137	-3.52E-03 +- 1.1E-02	U	pCi/g				1.81E-02
	EU-152	-3.83E-02 +- 4.3E-02	U	pCi/g				5.59E-02
	EU-154	1.17E-03 +- 3.0E-02	U	pCi/g				5.53E-02
	EU-155	-1.19E-02 +- 3.1E-02	U	pCi/g				5.11E-02
1097254 LCS,								
MGN301AC	CS-137	1.11E+00 +- 1.5E-01		pCi/g		102%	0.0	3.07E-02
9310_ALPHABETA_GPC								
1097256 BLANK QC,								
MGN351AA	ALPHA	-4.91E-03 +- 2.2E-02	U	pCi/g	100%			5.28E-02
1097256 LCS,								
MGN351AC	ALPHA	4.13E+00 +- 9.0E-01		pCi/g	100%	92%	-0.1	6.59E-02
9310_ALPHABETA_GPC								
1097257 BLANK QC,								
MGN4F1AA	BETA	2.19E-01 +- 1.8E-01	U	pCi/g	100%			3.43E-01
1097257 LCS,								
MGN4F1AC	BETA	1.35E+01 +- 1.8E+00		pCi/g	100%	97%	0.0	3.79E-01
9310_ALPHABETA_GPC								
1103384 BLANK QC,								
MG0R11AA	ALPHA	-1.03E-03 +- 4.1E-03	U	pCi/g	100%			8.56E-03
1103384 LCS,								
MG0R11AC	ALPHA	3.27E-01 +- 7.1E-02		pCi/g	100%	77%	-0.2	6.16E-03
9310_ALPHABETA_GPC								
1103387 BLANK QC,								
MG0R41AA	BETA	3.20E-03 +- 9.8E-03	U	pCi/g	100%			1.96E-02
1103387 LCS,								
MG0R41AC	BETA	6.86E-01 +- 8.9E-02		pCi/g	100%	102%	0.0	1.80E-02

No. of Results: 15

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:**	JP0153	**Collection Date:**	4/1/2011 10:05:00 AM
Lot-Sample No.:	J1D070437-2	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H066	**COC No. :**	RC-073-122	**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: 1097254	GAMMA_GS			**Work Order:** MGNGG1AD			**Report DB ID:** 9MGNGG10					
AMERICIUM 241	***-2.16E-02***	U	1.6E-01	1.6E-01	2.66E-01	pCi/g		*-0.08*	4/11/11 11:40 a		22.8	GER14$1
								-0.27			g	
CO-60	***2.76E-01***	U	2.0E-01	2.0E-01	3.79E-01	pCi/g		*0.73*	4/11/11 11:40 a		22.8	GER14$1
							5.00E-02	*(2.8)*			g	
CS-137	***1.03E+00***		3.7E-01	3.7E-01	2.90E-01	pCi/g		*(3.5)*	4/11/11 11:40 a		22.8	GER14$1
							1.00E-01	*(5.5)*			g	
EU-152	***7.86E-01***	U	4.4E-01	4.4E-01	7.53E-01	pCi/g		*(1.)*	4/11/11 11:40 a		22.8	GER14$1
							1.00E-01	*(3.6)*			g	
EU-154	***1.57E+01***		2.4E+00	2.4E+00	7.43E-01	pCi/g		*(21.1)*	4/11/11 11:40 a		22.8	GER14$1
							1.00E-01	*(13.3)*			g	
EU-155	***1.25E+00***		5.0E-01	5.0E-01	4.84E-01	pCi/g		*(2.6)*	4/11/11 11:40 a		22.8	GER14$1
							1.00E-01	*(5.)*			g	
Batch: 1097256	9310_ALPHABETA_GPC			**Work Order:** MGNGG1AA			**Report DB ID:** 9MGNGG10					
ALPHA	***6.06E+00***		5.0E-01	1.3E+00	1.31E-01	pCi/g	100%	*(46.4)*	4/15/11 12:37 p		1.03	GPC1CB
						5.19E-02	1.00E+01	*(9.)*			g	
Batch: 1097257	9310_ALPHABETA_GPC			**Work Order:** MGNGG1AC			**Report DB ID:** 9MGNGG10					
BETA	***1.30E+01***		5.9E-01	1.8E+00	4.06E-01	pCi/g	100%	*(32.)*	4/13/11 05:23 p		1.01	GPC28C
						1.95E-01	1.50E+01	*(14.2)*			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 I

SAMPLE RESULTS

Date: 18-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0153	**Collection Date:**	4/1/2011 9:00:00 AM
Lot-Sample No.:	J1D070443-1	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H067	**COC No. :**	RC-073-123	**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: 1097254	GAMMA_GS			**Work Order:** MGNG31AD			**Report DB ID:** 9MGNG310					
AMERICIUM 241	***-4.03E-02***	U	8.3E-02	8.3E-02	1.38E-01	pCi/g		*-0.29*	4/11/11 01:15 a		317.2	GER10$1
								-0.97			g	
CO-60	***2.44E-01***		4.3E-02	4.3E-02	2.71E-02	pCi/g		*(9.)*	4/11/11 01:15 a		317.2	GER10$1
							5.00E-02	*(11.2)*			g	
CS-137	***4.55E-01***		7.3E-02	7.3E-02	2.99E-02	pCi/g		*(15.2)*	4/11/11 01:15 a		317.2	GER10$1
							1.00E-01	*(12.5)*			g	
EU-152	***1.24E-02***	U	8.0E-02	8.0E-02	9.52E-02	pCi/g		*0.13*	4/11/11 01:15 a		317.2	GER10$1
							1.00E-01	*0.31*			g	
EU-154	***2.57E-01***	U	9.3E-02	9.3E-02	1.46E-01	pCi/g		*(1.8)*	4/11/11 01:15 a		317.2	GER10$1
							1.00E-01	*(5.5)*			g	
EU-155	***-4.57E-02***	U	6.3E-02	6.3E-02	1.02E-01	pCi/g		*-0.45*	4/11/11 01:15 a		317.2	GER10$1
							1.00E-01	*-(1.5)*			g	
Batch: 1097256	9310_ALPHABETA_GPC			**Work Order:** MGNG31AA			**Report DB ID:** 9MGNG310					
ALPHA	***2.59E-01***		9.2E-02	1.1E-01	1.03E-01	pCi/g	100%	*(2.5)*	4/15/11 12:37 p		1.01	GPC10C
						4.44E-02	1.00E+01	*(4.9)*			g	
Batch: 1097257	9310_ALPHABETA_GPC			**Work Order:** MGNG31AC			**Report DB ID:** 9MGNG310					
BETA	***1.56E+00***		2.9E-01	3.6E-01	3.90E-01	pCi/g	100%	*(4.)*	4/13/11 05:23 p		1.04	GPC28D
						1.88E-01	1.50E+01	*(8.8)*			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 I

SAMPLE RESULTS

Date: 18-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0153	**Collection Date:**	4/1/2011 10:45:00 AM
Lot-Sample No.:	J1D070427-1	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H072	**COC No. :**	RC-073-128	**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: 1097254	GAMMA_GS			**Work Order:**	MGNE91AD		**Report DB ID:**	9MGNE910				
AMERICIUM 241	***-2.28E-01***	U	2.2E-01	2.2E-01	3.37E-01	pCi/g		*-0.68*	4/11/11 04:41 a		30.1	GER11$1
								-(2.1)			g	
CO-60	***4.91E-02***	U	6.1E-02	6.1E-02	1.24E-01	pCi/g		*0.4*	4/11/11 04:41 a		30.1	GER11$1
							5.00E-02	*(1.6)*			g	
CS-137	***3.74E-02***	U	4.9E-02	4.9E-02	9.27E-02	pCi/g		*0.4*	4/11/11 04:41 a		30.1	GER11$1
							1.00E-01	*(1.5)*			g	
EU-152	***-1.80E-02***	U	1.1E-01	1.1E-01	1.86E-01	pCi/g		*-0.1*	4/11/11 04:41 a		30.1	GER11$1
							1.00E-01	*-0.33*			g	
EU-154	***7.25E-02***	U	1.6E-01	1.6E-01	3.15E-01	pCi/g		*0.23*	4/11/11 04:41 a		30.1	GER11$1
							1.00E-01	*0.91*			g	
EU-155	***1.75E-02***	U	9.2E-02	9.2E-02	1.63E-01	pCi/g		*0.11*	4/11/11 04:41 a		30.1	GER11$1
							1.00E-01	*0.38*			g	
Batch: 1097256	9310_ALPHABETA_GPC			**Work Order:**	MGNE91AA		**Report DB ID:**	9MGNE910				
ALPHA	***2.03E-02***	U	3.2E-02	3.2E-02	5.47E-02	pCi/g	100%	*0.37*	4/15/11 12:37 p		1.04	GPC10A
						2.05E-02	1.00E+01	*(1.3)*			g	
Batch: 1097257	9310_ALPHABETA_GPC			**Work Order:**	MGNE91AC		**Report DB ID:**	9MGNE910				
BETA	***3.73E-01***		2.3E-01	2.4E-01	3.65E-01	pCi/g	100%	*(1.)*	4/13/11 05:23 p		1.04	GPC28B
						1.76E-01	1.50E+01	*(3.2)*			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 I

SAMPLE RESULTS

Date: 18-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0153	**Collection Date:**	4/1/2011 10:55:00 AM
Lot-Sample No.:	J1D070437-1	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H074	**COC No. :**	RC-073-130	**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: 1097254	GAMMA_GS			**Work Order:**	MGNF91AD		**Report DB ID:**	9MGNF910				
AMERICIUM 241	***1.84E-01***	U	1.9E-01	1.9E-01	3.53E-01	pCi/g		*0.52*	4/11/11 08:07 a		28.9	GER11$1
								(1.9)			g	
CO-60	***1.45E-03***	U	5.2E-02	5.2E-02	9.65E-02	pCi/g		*0.02*	4/11/11 08:07 a		28.9	GER11$1
							5.00E-02	*0.06*			g	
CS-137	***4.38E-02***	U	4.6E-02	4.6E-02	8.79E-02	pCi/g		*0.5*	4/11/11 08:07 a		28.9	GER11$1
							1.00E-01	*(1.9)*			g	
EU-152	***-4.24E-02***	U	9.2E-02	9.2E-02	1.54E-01	pCi/g		*-0.27*	4/11/11 08:07 a		28.9	GER11$1
							1.00E-01	*-0.92*			g	
EU-154	***1.09E-01***	U	1.3E-01	1.3E-01	2.66E-01	pCi/g		*0.41*	4/11/11 08:07 a		28.9	GER11$1
							1.00E-01	*(1.7)*			g	
EU-155	***2.13E-03***	U	8.0E-02	8.0E-02	1.40E-01	pCi/g		*0.02*	4/11/11 08:07 a		28.9	GER11$1
							1.00E-01	*0.05*			g	
Batch: 1103384	9310_ALPHABETA_GPC			**Work Order:**	MGNF92AA		**Report DB ID:**	9MGNF920				
ALPHA	***-9.94E-01***	U	9.1E-01	9.3E-01	2.15E+00	pCi/g	100%	*-0.46*	4/15/11 04:12 p	1.01	0.10092	GPC10C
						9.26E-01	1.00E+01	*-(2.1)*		g	g	
Batch: 1103387	9310_ALPHABETA_GPC			**Work Order:**	MGNF92AC		**Report DB ID:**	9MGNF920				
BETA	***1.31E+00***	U	1.1E+00	1.1E+00	2.09E+00	pCi/g	100%	*0.63*	4/14/11 03:00 p	1.01	0.20124	GPC27A
						1.00E+00	1.50E+01	*(2.4)*		g	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:**	JP0153	**Collection Date:**	4/1/2011 9:00:00 AM
Lot-Sample No.:	J1D070443-1	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H067 DUP	**COC No. :**	RC-073-123	**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: 1097256	9310_ALPHABETA_GPC			**Work Order:** MGNG31AE		**Report DB ID:** MGNG31ER			**Orig Sa DB ID:** 9MGNG310			
ALPHA	8.86E-01		1.7E-01	2.5E-01	1.24E-01	pCi/g	100%	(7.1)	4/15/11 12:37 p		1.0	GPC10D
	2.59E-01		**RPD**	**109.4**		1.00E+01		(7.)			g	

No. of Results: 1 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.

FORM II

Date: 18-Apr-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0153	**Collection Date:**	4/1/2011 10:45:00 AM
Lot-Sample No.:	**J1D070427-1**	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	**J1H072 DUP**	**COC No. :**	RC-073-128	**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: 1097254	GAMMA_GS			**Work Order:** MGNE91AE		**Report DB ID:** MGNE91ER			**Orig Sa DB ID:** 9MGNE910			
AMERICIUM 241	-4.68E-02	U	8.2E-02	8.2E-02	1.36E-01	pCi/g		-0.34	4/11/11 08:06 a		30.1	GER14$1
	-2.28E-01	U	**RPD**	**-131.9**				-(1.1)			g	
CO-60	-1.99E-02	U	9.2E-02	9.2E-02	1.64E-01	pCi/g		-0.12	4/11/11 08:06 a		30.1	GER14$1
	4.91E-02	U	**RPD**	**472.4**		5.00E-02		-0.43			g	
CS-137	5.46E-02	U	8.5E-02	8.5E-02	1.59E-01	pCi/g		0.34	4/11/11 08:06 a		30.1	GER14$1
	3.74E-02	U	**RPD**	**37.4**		1.00E-01		(1.3)			g	
EU-152	-9.50E-02	U	2.3E-01	2.3E-01	3.89E-01	pCi/g		-0.24	4/11/11 08:06 a		30.1	GER14$1
	-1.80E-02	U	**RPD**	**-136.1**		1.00E-01		-0.83			g	
EU-154	-1.90E-01	U	2.9E-01	2.9E-01	4.76E-01	pCi/g		-0.4	4/11/11 08:06 a		30.1	GER14$1
	7.25E-02	U	**RPD**	**-445.9**		1.00E-01		-(1.3)			g	
EU-155	-2.93E-03	U	1.4E-01	1.4E-01	2.31E-01	pCi/g		-0.01	4/11/11 08:06 a		30.1	GER14$1
	1.75E-02	U	**RPD**	**280.1**		1.00E-01		-0.04			g	

No. of Results: 6 **Comments:**

TestAmerica **RPD** - Relative Percent Difference.

rptSTLRchDupV5.2 .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:**	JP0153	**Collection Date:**	4/1/2011 10:55:00 AM
Lot-Sample No.:	J1D070437-1	**Report No. :**	46235	**Received Date:**	4/6/2011 3:20:00 PM
Client Sample ID:	J1H074 DUP	**COC No. :**	RC-073-130	**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: 1103387	9310_ALPHABETA_GPC			Work Order: MGNF92AE		Report DB ID: MGNF92ER			Orig Sa DB ID: 9MGNF920			
BETA	1.69E+00	U	1.2E+00	1.2E+00	2.23E+00	pCi/g	100%	0.76	4/14/11 03:00 p	1.01	0.20093	GPC27B
	1.31E+00	U	RPD 24.9			1.50E+01		(2.8)		g	g	

No. of Results: 1 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: JP0153

Report No. : 46235

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: 1097254	GAMMA_GS			**Work Order:**	MGN301AA		**Report DB ID:**	MGN301AB				
AMERICIUM 241	-4.10E-02	U	4.4E-02	4.4E-02	7.25E-02	pCi/g		-0.57	4/11/11 04:41 a		348.0	GER10$1
								-(1.8)			g	
CO-60	2.40E-03	U	1.1E-02	1.1E-02	2.10E-02	pCi/g		0.11	4/11/11 04:41 a		348.0	GER10$1
						5.00E-02		0.43			g	
CS-137	-3.52E-03	U	1.1E-02	1.1E-02	1.81E-02	pCi/g		-0.19	4/11/11 04:41 a		348.0	GER10$1
						1.00E-01		-0.66			g	
EU-152	-3.83E-02	U	4.3E-02	4.3E-02	5.59E-02	pCi/g		-0.68	4/11/11 04:41 a		348.0	GER10$1
						1.00E-01		-(1.8)			g	
EU-154	1.17E-03	U	3.0E-02	3.0E-02	5.53E-02	pCi/g		0.02	4/11/11 04:41 a		348.0	GER10$1
						1.00E-01		0.08			g	
EU-155	-1.19E-02	U	3.1E-02	3.1E-02	5.11E-02	pCi/g		-0.23	4/11/11 04:41 a		348.0	GER10$1
						1.00E-01		-0.78			g	
Batch: 1097256	9310_ALPHABETA_GPC			**Work Order:**	MGN351AA		**Report DB ID:**	MGN351AB				
ALPHA	-4.91E-03	U	2.2E-02	2.2E-02	5.28E-02	pCi/g	100%	-0.09	4/15/11 04:12 p		1.04	GPC10A
					1.98E-02	1.00E+01		-0.45			g	
Batch: 1103384	9310_ALPHABETA_GPC			**Work Order:**	MG0R11AA		**Report DB ID:**	MG0R11AB				
ALPHA	-1.03E-03	U	4.1E-03	4.1E-03	8.56E-03	pCi/g	100%	-0.12	4/15/11 04:12 p		9.98	GPC10D
					3.59E-03	1.00E+01		-0.5			g	
Batch: 1097257	9310_ALPHABETA_GPC			**Work Order:**	MGN4F1AA		**Report DB ID:**	MGN4F1AB				
BETA	2.19E-01	U	1.8E-01	1.8E-01	3.43E-01	pCi/g	100%	0.64	4/13/11 05:23 p		1.0	GPC31B
					1.65E-01	1.50E+01		(2.4)			g	
Batch: 1103387	9310_ALPHABETA_GPC			**Work Order:**	MG0R41AA		**Report DB ID:**	MG0R41AB				

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

BLANK RESULTS

Date: 18-Apr-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0153

Report No. : 46235

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
BETA	3.20E-03	U	9.8E-03	9.8E-03	1.96E-02	pCi/g	100%	0.16	4/14/11 03:00 p		20.04	GPC27C
					9.46E-03	1.50E+01		0.65			g	

No. of Results: 10 **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: JP0153

Report No. : 46235

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: 1097254	GAMMA_GS			**Work Order:**	MGN301AC		**Report DB ID:**	MGN301CS					
CS-137	1.11E+00		1.5E-01	1.5E-01	3.07E-02	pCi/g		1.08E+00	1.1E-02	102%	4/11/11 08:07 a	350.1 g	GER10$1
							Rec Limits:	70	130	0.0			
Batch: 1097256	9310_ALPHABETA_GPC			**Work Order:**	MGN351AC		**Report DB ID:**	MGN351CS					
ALPHA	4.13E+00		2.9E-01	9.0E-01	6.59E-02	pCi/g	100%	4.47E+00	4.5E-02	92%	4/15/11 04:12 p	1.04 g	GPC10B
							Rec Limits:	70	130	-0.1			
Batch: 1103384	9310_ALPHABETA_GPC			**Work Order:**	MG0R11AC		**Report DB ID:**	MG0R11CS					
ALPHA	3.27E-01		2.5E-02	7.1E-02	6.16E-03	pCi/g	100%	4.22E-01	4.3E-03	77%	4/16/11 04:42 p	10.86 g	GPC10A
							Rec Limits:	70	130	-0.2			
Batch: 1097257	9310_ALPHABETA_GPC			**Work Order:**	MGN4F1AC		**Report DB ID:**	MGN4F1CS					
BETA	1.35E+01		5.5E-01	1.8E+00	3.79E-01	pCi/g	100%	1.39E+01	5.4E-01	97%	4/13/11 05:23 p	0.98 g	GPC31C
							Rec Limits:	70	130	0.0			
Batch: 1103387	9310_ALPHABETA_GPC			**Work Order:**	MG0R41AC		**Report DB ID:**	MG0R41CS					
BETA	6.86E-01		2.7E-02	8.9E-02	1.80E-02	pCi/g	100%	6.73E-01	2.6E-02	102%	4/14/11 03:00 p	20.51 g	GPC27D
							Rec Limits:	70	130	0.0			

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

4/18/2011 11:09:01 AM

Lot No., Due Date:	J1D070427,J1D070437,J1D070443; 04/13/2011
Client, Site:	127642; S00N063A00 HANFORD
QC Batch No., Method Test:	1097256; RALPHA-A Alpha by GPC-Am
SDG, Matrix:	JP0153; 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 10-18116

Thomas D McE

First Level _____ Date _____ 4/18/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1097256

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/L
See NCM #: 10-18116

Second Level Review: [signature] Date: 4/18/14

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18116
NCM Initiated By: Tom Mcginnis
Date Opened: 04/18/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J1D070000 (256), J1D070427 (1), J1D070437 (1,2), J1D070443 (1),
QC Batches: 1097256,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	04/18/2011	The final planchet weight for sample J1D070437-1 exceeded acceptance criteria. The sample was reanalyzed successfully in batch 1103384 using a smaller aliquot size. The technician noted a difference in final planchet weights between sample J1D070443-1 and its duplicate analysis. Both results are below the CRDL and meet acceptance criteria.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	04/18/2011	The PM was made aware of the batch deficiencies.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-ANALYSIS REQUEST

DUE DATE 4/13/11

CUSTOMER WCH

ANALAYSIS Alpha

MATRIX Other

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1097256

NEW BATCH NUMBER 1103384

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2) MGNF9-1AA		Sample too Heavy
3)		
4)		
5)		
6)		~~Re-prep @ .13 gram~~
7)		
8)		
9)		Prep 1 gram of sample
10)		
11)		Provide 1/10 for Analysis
12)		
13)		
14)		Tom
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/18/2011 11:12:46 AM

Lot No., Due Date: J1D070437; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1103384; RALPHA-A Alpha by GPC-Am
SDG, Matrix: JP0153; 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 10-18117

First Level Thomas D [signature] Date 4/18/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1103384

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
See NCM #: 10-18117

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

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18117
NCM Initiated By: Tom Mcginnis
Date Opened: 04/18/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J1D070437 (1), J1D130000 (384),
QC Batches: 1103384,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	04/18/2011	Reanalysis of sample J1D070437-1 from batch 1097256 due to final planchet weight exceeding acceptance criteria.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	04/18/2011	The PM was made aware of the batch deficiency.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/15/2011 10:34:12 AM

Lot No., Due Date: J1D070427,J1D070437,J1D070443; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1097257; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: JP0153; 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 10-18103

Thomas D M

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1097257

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
SCENCM#: 10-18103

Second Level Review: [signature] Date: 4/15/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-18103**
NCM Initiated By: Tom Mcginnis
Date Opened: 04/15/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Prep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J1D070000 (257), J1D070427 (1), J1D070437 (1,2), J1D070443 (1),
QC Batches: 1097257,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	04/15/2011	The final planchet weight for sample J1D070437- 1 and its duplicate analysis exceeded acceptance criteria. The sample and duplicate were successfully reanalyzed in batch 1103387 using a smaller sample size. All other acceptance criteria was met for batch 1097257.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	04/15/2011	PM was made aware of the batch deficiencies.

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: 4/15/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-ANALYSIS REQUEST

DUE DATE 4/13/11

CUSTOMER WCH

ANALAYSIS Beta

MATRIX Other

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1097257

NEW BATCH NUMBER 1103387

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2) MGNF9-1AC		
3)		
4) MGNF9-1AE(Dup)		
5)		Samples too Heavy
6)		
7)		
8)		Prep 1gram
9)		
10)		
11)		Provide ~~2gram~~ 20%
12)		
13)		for analysis
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/15/2011 10:37:10 AM

Lot No., Due Date: J1D070437; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1103387; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: JP0153; 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:
NCM 10-18104

Thomas D McE

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1103387

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 = 15.0pCi/g
See NCM#: 10-18104

Second Level Review: [signature] Date: 4/15/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #:	**10-18104**		
NCM Initiated By:	Tom Mcginnis	Classification:	**Deficiency**
Date Opened:	04/15/2011	Status:	**PMREVIEW**
Date Closed:		Production Area:	Environmental - Prep
		Tests:	Beta by GPC-Sr/Y
		Lot #'s (Sample #'s):	J1D070437 (1), J1D130000 (387),
		QC Batches:	1103387,
Nonconformance:	Other (describe in detail)		
Subcategory:	Other (explanation required)		

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	04/15/2011	Batch 1103387 is a reanalysis of sample J1D070437- 1 and its duplicate from batch 1097257 due to excessive planchet weight. Sample batch 1103387 meets all acceptance criteria.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	04/15/2011	PM was made aware of the batch deficiencies.

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: 4/15/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/12/2011 3:38:44 PM

Lot No., Due Date: J1D070427,J1D070437,J1D070443; 04/13/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1097254; RGAMMA Gamma by GER
SDG, Matrix: JP0153; OTHER

1.0 COC

	Yes	No	N/A
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		

2.0 QC Batch

	Yes	No	N/A
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

	Yes	No	N/A
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

	Yes	No	N/A
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

	Yes	No	N/A
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:
Please see NCM # 10-18031

First Level [signature] Date 4-12-11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1097254

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 = 0.1 pci/g
SCE NCM #: 10-18031

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

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

Clouseau
Nonconformance Memo

TestAmerica

NCM #:	10-18031		
NCM Initiated By:	John Norton	Classification:	**Anomaly**
Date Opened:	04/12/2011	Status:	**PMREVIEW**
Date Closed:		Production Area:	Counting
		Tests:	Gamma by GER
		Lot #'s (Sample #'s):	J1D070000 (254), J1D070427 (1), J1D070437 (1,2), J1D070443 (1),
		QC Batches:	1097254,
Nonconformance:	MDA not met		
Subcategory:	Data accepted		

Problem Description / Root Cause

Name	Date	Description
John Norton	04/12/2011	1: The samples did not meet the CRDL.
		2: The volume of sample provided was not sufficient for the creation of a duplicate.

Corrective Action

Name	Date	Corrective Action
John Norton	04/12/2011	1: The samples can be re-counted for a longer time frame at client request.
		2: One sample was re-counted in order to provide a duplicate.

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: 4/12/2011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-128	Page 1 of 1

Collector: Blankingship / Lucas	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: ~~9L~~ 9B	Data Turnaround: ~~21~~ 7 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 118-D-3 (100D-AN-07-046)		SAF No.: RC-073
Ice Chest No.: NA	Field Logbook No.: EL-1657	COA: R118D32600	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Radioactive < DOT limits JEB 4-6-11

Special Handling and/or Storage

~~Cool 4 Deg C~~ NONE

Lot # JID 070427
SDG # JP0153
Due 4.13.11

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	0	1
Volume	60mL	125mL	60mL	60mL	60mL	60mL	125mL	500mL	60mL	~~100g~~ 500mL

SAMPLE ANALYSIS

	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
Sample No. / Matrix * / Sample Date / Sample Time	RCF		7/28/11							
J1H072 / OTHER / 4/1/11 / 1045	27499		1989		MGNE9			✓	✓	✓

CHAIN OF POSSESSION	Sign/Print Names	Date/Time
Relinquished By/Removed From: K. Lucas	Received By/Stored In: J. DeBuigne	4/1/11 1330
Relinquished By/Removed From: J. E. Beck	Received By/Stored In: RCF Mike Rook	4-4-11 0945
Relinquished By/Removed From: RCF Mike Rook	Received By/Stored In: J. E. Beck	4-5-11 0840
Relinquished By/Removed From: J. E. Beck	Received By/Stored In: TALP	4/6/11 1520
Relinquished By/Removed From	Received By/Stored In	
Relinquished By/Removed From	Received By/Stored In	

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. Debuigne unavailable to relinquish samples 4-4-11 JEB 4-4-11

JP0153

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 RCF27499

J1H072 SAF:RC-073 100D/118-D-3 (100D-AN-07-046)

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27499
Sample Description	: J1H072 SAF:RC-073 100D/118-D-3 (100D-AN-07-046)
Sample Type	: Non Standard Geometry
Sample Size	: 1.980E+02 grams
Facility	: Default
Sample Taken On	: 4/1/2011 10:45:00AM
Acquisition Started	: 4/4/2011 2:27:06PM
Procedure	: Non Standard Geometry
Operator	: RCT
Detector Name	: PGTLYNX
Geometry	: Non Standard Geometry
Live Time	: 3600.0 seconds
Real Time	: 3601.6 seconds
Dead Time	: 0.04 %
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	: 3/3/2011
Efficiency Calibration Used Done On	: 3/11/2011
Efficiency Calibration Description	: PGTL NSTD 030711EC SN28751A-238
Sample Number	: 13184

"Qualitative Only"

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40	1.000	3.76E+00	7.73E-01	
EU-154	0.528	1.79E-01	4.09E-02	
PB-212	0.708	1.04E-01	3.34E-02	
U-238d	0.334	3.26E-01	2.92E-01	

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Sample Check-in List

Date/Time Received: 4.6.11 1520 GM Screen Result (out) .3 (in) .7 Initials [CK]

Client: WCH SDG #: JP0153 NA [ ] SAF #: RC-073 NA [ ]

Work Order Number: J1D070427 Chain of Custody # RC-073-128

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [ ]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 1 sample @ IX500 MLP
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   ____ tape
   CK custody seals
   (other - soil)
   ____ hazard labels
   CK appropriate sample labels
9. Samples:
   CK are in good condition
   ____ are broken
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (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 [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK]

See other side for additional comments

Sample Custodian: Camerg Smyth Date: 4.6.11 1520

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

[X] No action necessary; process as is

Project Manager Whitney Ritari Date 4/6/11

LS-023, Rev. 12, 10/10

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-130	Page 1 of 1
Collector: Blankingship / Lucas	Company Contact: Joan Kessner; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: ~~9L~~ 9B JPD 4/1/11; Data Turnaround: ~~21~~ 7 Days
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 118-D-3 (100D-AN-07-052)	SAF No.: RC-073	
Ice Chest No.: NA	Field Logbook No.: EL-1657; COA: R118D32600	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 < DOT Limits JEB 4-6-11

Special Handling and/or Storage

~~Cool 4 Deg C~~ JPD 4/4/11 NONE

Lot #J1D070437
SDG #JP0153
Due 4-14-11 13
CK 4-7-11

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~~ 3	1
Volume	60mL	125mL	60mL	60mL	60mL	60mL	125mL	500mL	60mL	~~60g~~ 500mL JPD 4/1/11

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	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
				RCF									
J1H074	OTHER	4/1/11	1055	27495		31	22g		MGNF9		✓	✓	✓

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Kareen Lucas K. Lucas	4-1-11 1330	J. DeBrigue	1330 4/1/11
J. E. Bell	0945 4-4-11	Mike Roth RCF	0945 4-4-11
Mike Roth RCF	4-5-11 0840	J. E. Bell	0840 4-5-11
J. E. Bell	1520 4-6-11	Lucas Lizarraga TALR	1520 4/6/11

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. Debrigue unavailable to relinquish samples 4-4-11. JEB 4-4-11

JP0153

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 JC 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

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-122	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: 118-D-3 (100D-AN-07-027)	SAF No.: RC-073	
Ice Chest No.: NA	Field Logbook No.: EL-1657; COA: R118D32600	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 <DOT Limits JEB 4-6-11 Lot #JID070437 SDG# JP0153 Due 4.14.11

Special Handling and/or Storage

~~Cool 4 Deg C~~ JRD 4/1/11 NONE

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	0	1
Volume	60mL	125mL	60mL	60mL	60mL	60mL	125mL	500mL	60mL	~~125mL~~ 500mL JRD 4/1/11
SAMPLE ANALYSIS	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 Stripping Screen JEB 4-6-11

Sample No.	Matrix *	Sample Date	Sample Time	RCF		JRD 3/28/11		MGINGG			✓	✓	✓
J1H066	OTHER	4/1/11	1005	27497	330g								

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	JRDeBuigne JRDeBuigne	1330 4/1/11
J. E. Berk	0945 WCH 4-4-11	M. Kelsch / Michael Kelsch	4-4-11 0945
M. Kelsch / Michael Kelsch	RCF 4-5-11 0840	J. E. Berk	0840 4-5-11
J. E. Berk	1520 WCH 4-6-11	TAR Lucas Velazquez	1520 4/6/11

SPECIAL INSTRUCTIONS

~~Screen for oxidizer with Spillyter test strip~~ JRD 3/31/11

(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. Debuigne unavailable to relinquish samples 4-4-11. JEB 4-4-11

JP0153

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 JC 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 RCF27495

J1H074 SAF:RC-073 100D/118-D-3 (100D-AN-07-052)

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27495
Sample Description	: J1H074 SAF:RC-073 100D/118-D-3 (100D-AN-07-052)
Sample Type	: 250ml Glass Jar
Sample Size	: 2.210E+02 grams
Facility	: Default
Sample Taken On	: 4/1/2011 10:55:00AM
Acquisition Started	: 4/4/2011 1:24:45PM
Procedure	: Non Standard Geometry
Operator	: RCT
Detector Name	: GEA2703
Geometry	: 310g Sand in 250mL Wide Mouth Glass Jar
Live Time	: 3600.0 seconds
Real Time	: 3601.5 seconds
Dead Time	: 0.04 %
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	: 2/2/2011
Efficiency Calibration Used Done On	: 3/4/2011
Efficiency Calibration Description	: GEA2703 250mlWMJ 030111EC SN82756-238
Sample Number	: 13189

QUALITATIVE ONLY

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
U-238d	0.354	6.93E-01	8.75E-01	LMDA of 1.44 pCi/g

Apex™

Non-Reg

Analysis Report for RCF27497

J1H066 SAF:RC-073 100D/118-D-3 (100D-AN-07-027)

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27497
Sample Description	: J1H066 SAF:RC-073 100D/118-D-3 (100D-AN-07-027)
Sample Type	: Non Standard Geometry
Sample Size	: 3.300E+02 grams
Facility	: Default
Sample Taken On	: 4/1/2011 10:05:00AM
Acquisition Started	: 4/4/2011 1:25:00PM
Procedure	: Non Standard Geometry
Operator	: RCT
Detector Name	: REGIE2
Geometry	: Non Standard Geometry
Live Time	: 3600.0 seconds
Real Time	: 3601.8 seconds
Dead Time	: 0.05 %
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	: 13192

QUALITATIVE ONLY

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40	0.985	2.76E+00	5.15E-01	
CO-60	0.986	1.17E-01	2.78E-02	
CS-137	0.993	2.47E-01	5.22E-02	
EU-154	0.885	4.32E+00	1.46E-01	
EU-155	1.000	3.74E-01	5.89E-02	

Analysis Report for RCF27497

J1H066 SAF:RC-073 100D/118-D-3 (100D-AN-07-027)

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
PB-212		0.986	1.99E-01	3.92E-02	
RA-226d	@	0.678	1.83E-01	3.98E-02	
U-235		0.542	6.32E-02	4.78E-02	LMDA of 7.68E-2 pCi/g

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 2.000 sigma

UNIDENTIFIED PEAKS

Peak Locate Performed on : 4/4/2011 3:45:08PM
Peak Locate From Channel : 40
Peak Locate To Channel : 4096

Peak No.	Energy (keV)	Peak Size (CPS)	Peak CPS (%) Uncertainty	Peak Type	Tolerance Nuclide
10	238.49	3.05122E-02	27.85	Tol	Th-232d (Pb-212)
13	338.34	1.30571E-02	62.28	Sum	
22	903.86	1.24530E-02	33.83	Sum	
25	1111.77	5.77381E-03	51.84	UK	
29	1396.86	1.02778E-02	20.87	Sum	
31	1493.32	1.17418E-02	18.04	Tol	Eu154

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet
Errors quoted at 2.000 sigma

NUCLIDE MDA REPORT

Nuclide Library Used : \\WC98582\ApexRoot\Default\Library\RCF UNKNOWN EU.NLB

	Nuclide Name	Energy (keV)		Yield(%)	Activity (pCi/grams)	Nuclide MDA (pCi/grams)	Line MDA (pCi/grams)
+	K-40	1460.83	*	10.67	2.76E+00	4.44E-01	4.44E-01
+	CO-60	1173.24	*	99.90	1.04E-01	4.43E-02	5.63E-02
		1332.50	*	99.98	1.29E-01		4.43E-02
	NB-94	702.63		99.81	-1.70E-02	6.31E-02	6.31E-02
		871.10		99.89	1.09E-02		1.40E-01

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Sample Check-in List

Date/Time Received: 4.6.11 1520 GM Screen Result (out) 0.3 (in) .8 Initials [CK]

Client: WCH SDG #: JP0153 NA [ ] SAF #: RC-073 NA [ ]

Work Order Number: JID070437 Chain of Custody # RC-073-130; RC-073-122

Shipping Container ID: hand delivery NA [ ] Air Bill # NA [CK]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 2 samples @ 1X 500mLP per each
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   ____ tape
   CK custody seals
   (Other- ~~soil~~ CK 4.7.11)
   ____ hazard labels
   CK appropriate sample labels
9. Samples:
   CK are in good condition
   ____ are broken
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (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 [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK]

See other side for additional comments

Sample Custodian: [signature] Date: 4.6.11 1520

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

WR No action necessary; process as is

Project Manager Whitney Ratani Date 4/7/11

LS-023, Rev. 12, 10/10

TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-123	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 118-D-3 (100D-AN-07-030)		SAF No. RC-073		
Ice Chest No. NA	Field Logbook No. EL-1657	COA R118D32600	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 < DOT Limits JEB 4-6-11

Lot # J1D070443

SDG # JP0153

Due 4-14-11 13

Special Handling and/or Storage

~~Cool 4 Deg C~~ JRD 4/1/11 NONE

CK 4-7-11

J1D070443

SAMPLE ANALYSIS

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	JRD 4/1/11 0	1
Volume	60mL	125mL	60mL	60mL	60mL	60mL	125mL	500mL	60mL	~~60g~~ JRD 500mL 4/1/11
	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 Sulfide - 9030 JRD 3/31/11	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									
J1H067	OTHER	4/1/11	0900	27496 ~~27496~~ 4-4-11	502g			MGNG3			✓	✓	✓

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kenneth Lucas	4-1-11 1330	JRDeBruigne JRDeBruigne	1330 4/1/11
Relinquished By/Removed From J. E. Beck well	Date/Time 0945 4-4-11	Received By/Stored In M. Kerdic RCF	Date/Time 0945 4-4-11
Relinquished By/Removed From M. Kerdic RCF	Date/Time 4-5-11 0840	Received By/Stored In J. E. Beck	Date/Time 0840 4-5-11
Relinquished By/Removed From J. E. Beck well	Date/Time 1520 4-6-11	Received By/Stored In TALR Lucas Velazquez	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. Debuigne unavailable to relinquish samples 4-4-11 JEB 4-4-11

JP0153

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

REVIEWED BY J.C DATE 4/6/11

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

Samples 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 RCF27496

J1H067 SAF:RC-073 100D/118-D-3 (100D-AN-07-030)

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27496
Sample Description	: J1H067 SAF:RC-073 100D/118-D-3 (100D-AN-07-030)
Sample Type	: 250ml Glass Jar
Sample Size	: 5.020E+02 grams
Facility	: Default
Sample Taken On	: 4/1/2011 9:00:00AM
Acquisition Started	: 4/4/2011 1:24:53PM
Procedure	: Non Standard Geometry
Operator	: RCT
Detector Name	: PGTLYNX
Geometry	: 310g Sand in 250mL Wide Mouth Glass Jar
Live Time	: 3600.0 seconds
Real Time	: 3601.9 seconds
Dead Time	: 0.05 %
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	: 3/3/2011
Efficiency Calibration Used Done On	: 3/11/2011
Efficiency Calibration Description	: PGTL 250mlWMJ 031011EC SN82756-238
Sample Number	: 13190

QUALITATIVE ONLY

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40	0.999	9.06E+00	1.19E+00	
CO-60	0.994	2.45E-01	4.59E-02	
CS-137	0.999	5.32E-01	8.02E-02	
EU-154	0.664	2.87E-01	6.58E-02	
PB-212	0.710	5.49E-01	9.29E-02	

Analysis Report for RCF27496

J1H067 SAF:RC-073 100D/118-D-3 (100D-AN-07-030)

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
RA-226d	@	0.609	3.39E-01	7.15E-02	
TH-232d		0.837	3.84E-01	6.93E-02	

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 2.000 sigma

UNIDENTIFIED PEAKS

Peak Locate Performed on : 4/4/2011 3:21:23PM
Peak Locate From Channel : 40
Peak Locate To Channel : 4096

Peak No.	Energy (keV)	Peak Size (CPS)	Peak CPS (%) Uncertainty	Peak Type	Tolerance Nuclide

All peaks were identified.

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet
Errors quoted at 2.000 sigma

NUCLIDE MDA REPORT

Nuclide Library Used : \\WC98582\ApexRoot\Default\Library\RCF UNKNOWN.NLB

	Nuclide Name	Energy (keV)		Yield(%)	Activity (pCi/grams)	Nuclide MDA (pCi/grams)	Line MDA (pCi/grams)
+	K-40	1460.83	*	10.67	9.06E+00	7.57E-01	7.57E-01
+	CO-60	1173.24	*	99.90	2.47E-01	6.44E-02	7.99E-02
		1332.50	*	99.98	2.43E-01		6.44E-02
	NB-94	702.63		99.81	-1.09E-02	6.97E-02	6.97E-02
		871.10		99.89	4.36E-02		8.27E-02
	AG-108m	433.94		90.50	-8.29E-03	6.10E-02	6.10E-02
		614.28		89.80	2.21E-02		9.92E-02
		722.94		90.80	9.83E-02		9.52E-02
+	CS-137	661.66	*	85.21	5.32E-01	7.74E-02	7.74E-02
	EU-152	40.12		38.40	2.07E-01	1.94E-01	4.50E-01
		45.38		11.10	4.64E-01		1.03E+00
		121.78		28.40	4.44E-01		1.94E-01
		244.69		7.51	4.19E-01		7.89E-01
		344.29		26.60	3.08E-02		2.05E-01

J1D070443

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 4.6.11 1520 GM Screen Result (out) .3 (in) .7 Initials [CK]

Client: WCH SDG #: JP0153 NA [ ] SAF #: RC-073 NA [ ]

Work Order Number: J1D070443 Chain of Custody # RC-073-123

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [✓]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 1 sample @ 1X 500 mL P
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   CK tape
   CK custody seals
   (other – soil CK 4.7.11)
   CK hazard labels
   CK appropriate sample labels
9. Samples:
   CK are in good condition
   ____ are broken
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (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 [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK]

See other side for additional comments

Sample Custodian: Cam J Ryan Date: 4.6.11 1520

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

[✓] No action necessary; process as is

Project Manager Whitney Sitari Date 4/7/11

LS-023, Rev. 12, 10/10

4/12/2011 10:14:00 PM

Sample Preparation/Analysis

Balance Id:1120373922

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: 1097256 OTHER pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1097254 AXTA, 1097256 AYS7, 1097257 BBS8,

Prep Tech: BouslaughP,WoodT

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 MGNE9-1-AA J1D070427-1-SAMP 04/01/2011 10:45		1.04g,in AmtRec: 1X500MLP #Containers: 1		1.5	1.39459 200 1.39039 4.2mg		10A Scr:	1418 Alpha:	4/18/11 Beta:	
2 MGNF9-1-AA J1D070437-1-SAMP 04/01/2011 10:55		0.99g,in AmtRec: 1X500MLP #Containers: 1			too heavy		Scr:	Alpha:	Beta:	
3 MGNGG-1-AA J1D070437-2-SAMP 04/01/2011 10:05		1.03g,in AmtRec: 1X500MLP #Containers: 1			1.45319 1.40129 51.9mg		10A Scr:	Alpha:	Beta:	
4 MGNG3-1-AA J1D070443-1-SAMP 04/01/2011 09:00		1.01g,in AmtRec: 1X500MLP #Containers: 1			1.4079g 1.4006g 7.3mg		10C Scr:	Alpha:	Beta:	
5 MGNG3-1-AE-X See comments JB 4-13-11 J1D070443-1-DUP 04/01/2011 09:00		1.00g,in AmtRec: 1X500MLP #Containers: 1			1.4321g 1.4007g 31.4mg		10D Scr:	Alpha:	Beta:	
6 MGN35-1-AA-B J1D070000-256-BLK 04/07/2011 12:05 pd		1.04g,in AmtRec: #Containers: 1			1.40669 1.40609 0.6mg		10A Scr:	1753 Alpha:	4/15/11 Beta:	
7 MGN35-1-AC-C J1D070000-256-LCS 04/07/2011 12:05 pd		1.04g,in AmtRec: #Containers: 1	ASD5099 01/25/11,pd 04/04/05,r		1.3713g 1.3705g 0.8mg		10B Scr:	Alpha:	Beta:	

18116

TestAmerica Laboratories, Inc.

4/12/2011 10:14:01 PM

Sample Preparation/Analysis

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

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097256 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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:

Comments: MGNE9-SAMP "ISV. Recount DUP on a different detector."

Sample #2(mGN6a) too heavy. Gave information to Tom to initiate a re-run. JB 4-13-11

Sample #4(mGN63) + #5(mGN63, DUP.) huge weight difference. Not aware of any sample loss during our procedure. JB 4-13-11

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

MGNE91AA-SAMP Constituent List:

ALPHA	RDL:1.00E+01	pCi/g	LCL:	UCL:	RPD:
MGN351AA-BLK:					
ALPHA	RDL:1.00E+01	pCi/g	LCL:	UCL:	RPD:
MGN351AC-LCS:					
Am-241	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

MGNE91AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MGN351AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MGN351AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

4/18/2011 11:04:04 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/18/2010, 4/23/2011, Batch: '1097256', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097256						
AC		Rev1C	**BouslaughP**	4/8/2011 1:50:36 PM		
SC			Maucieris	IsBatched	4/7/2011 12:10:11 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	Prep1C	4/8/2011 1:50:36 PM	RL-PRP-003 REVISION 1
SC			WoodT	InPrep	4/12/2011 10:07:46 PM	RL-GAM-001 REVISION 1
SC			WoodT	Prep1C	4/12/2011 10:14:20 PM	RL-PRP-003 REVISION 1
SC			BockJ	InPrep2	4/13/2011 8:29:34 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	4/13/2011 3:21:38 PM	RL-GPC-001 REVISION 1
SC			ClarkR	InCnt1	4/13/2011 3:29:38 PM	RL-CI-006 REVISION 1
SC			BlackCL	CalcC	4/16/2011 6:31:24 AM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/18/2011 11:03:59 AM	RL-DR-001 Rev 2
AC			**WoodT**	4/12/2011 10:07:46		
AC			**WoodT**	4/12/2011 10:14:20		
AC			**BockJ**	4/13/2011 8:29:34		
AC			**BockJ**	4/13/2011 3:21:38 PM		
AC			**ClarkR**	4/13/2011 3:29:38 PM		
AC			**BlackCL**	4/16/2011 6:31:24		
AC			**mcginnist**	4/18/2011 11:03:59		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.44

4/14/2011 12:10:40 AM

Sample Preparation/Analysis

Balance Id:1120373922

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 #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT | Bach 2

AnalyDueDate: 04/13/2011

Batch: 1103384 OTHER pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None All Tests: 1097254 AXTA, 1097256 AYS7, 1097257 BBS8, 1103384 AYS7, 1103387 BBS8,

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 MGNF9-2-AA J1D070437-1-SAMP 04/01/2011 10:55	1.01g	10.03g,in AmtRec: 1X500MLP	#Containers: 1	1.5	1.4474 r 1.3865 r 60.9 mg	300	10C	1757	4/15/2011	
2 MG0R1-1-AA-B J1D130000-384-BLK 04/13/2011 16:11 pd		9.98g,in AmtRec:	#Containers: 1		1.4005 r 1.4002 r 0.3 mg		16D			
3 MG0R1-1-AC-C J1D130000-384-LCS 04/13/2011 16:11 pd		10.86g,in AmtRec:	ASD5101 01/25/11,pd 04/04/05 r #Containers: 1		1.3911 r 1.3905 r 0.6 mg		10A	1827	4/16/2011	

Scr: Alpha: Beta:

Comments:

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

18117

MGNF92AA-SAMP Constituent List:

MG0R11AA-BLK Constituent List:

MG0R11AC-LCS:

MGNF92AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG0R11AA-BLK Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG0R11AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

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4/14/2011 12:10:41 AM

Sample Preparation/Analysis

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

Balance Id:1120373922

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

AnalyDueDate: 04/13/2011

Batch: 1103384 pCi/g

SEQ Batch, Test: None

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:

TestAmerica Laboratories, Inc.

4/18/2011 11:10:50 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/18/2010, 4/23/2011, Batch: '1103384', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1103384						
AC		Rev1C	**WoodT**	4/13/2011 9:27:24 PM		
SC			mcginnist	IsBatched	4/13/2011 4:42:07 PM	ICOC_RADCALC v4.8.49
SC			WoodT	InPrep	4/13/2011 9:27:24 PM	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	4/14/2011 12:10:44 AM	RL-PRP-003 REVISION 1
SC			BockJ	InPrep2	4/14/2011 7:44:25 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	4/14/2011 1:10:02 PM	RL-GPC-001 REVISION 1
SC			BlackCL	InCnt1	4/14/2011 1:14:15 PM	RL-CI-006 REVISION 1
SC			ClarkR	CalcC	4/16/2011 7:11:45 PM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/18/2011 11:10:46 AM	RL-DR-001 Rev 2
AC			**WoodT**	4/14/2011 12:10:44		
AC			**BockJ**	4/14/2011 7:44:25		
AC			**BockJ**	4/14/2011 1:10:02 PM		
AC			**BlackCL**	4/14/2011 1:14:15 PM		
AC			**ClarkR**	4/16/2011 7:11:45 PM		
AC			**mcginnist**	4/18/2011 11:10:46		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions v4.8.44

4/12/2011 10:21:22 PM

Sample Preparation/Analysis

Balance Id:1120373922

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: 1097257 OTHER pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BouslaughP,WoodT

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 MGNE9-1-AC J1D070427-1-SAMP 04/01/2011 10:45	AmtRec: 1X500MLP	1.04g,in	#Containers: 1	1.5	1.4138g 200 1.4128g 1.0mg		288	1902	4/13/11 m	Scr: Alpha: Beta:
2 MGNF9-1-AC J1D070437-1-SAMP 04/01/2011 10:55	AmtRec: 1X500MLP	1.03g,in	#Containers: 1		too heavy					Scr: Alpha: Beta:
3 MGNF9-1-AE-X J1D070437-1-DUP 04/01/2011 10:55	AmtRec: 1X500MLP	1.02g,in	#Containers: 1		too heavy					Scr: Alpha: Beta:
4 MGNGG-1-AC J1D070437-2-SAMP 04/01/2011 10:05	AmtRec: 1X500MLP	1.01g,in	#Containers: 1		1.4636g 1.3869g 76.7mg		28C	1902	4/13/11 m	Scr: Alpha: Beta:
5 MGNG3-1-AC J1D070443-1-SAMP 04/01/2011 09:00	AmtRec: 1X500MLP	1.04g,in	#Containers: 1		1.4248g 1.3914g 33.4mg		28B			Scr: Alpha: Beta:
6 MGN4F-1-AA-B J1D070000-257-BLK 04/07/2011 12:05 pd	AmtRec:	1.00g,in	#Containers: 1		1.3936g 1.3934g 0.2mg		71B			Scr: Alpha: Beta:
7 MGN4F-1-AC-C J1D070000-257-LCS 04/07/2011 12:05 pd	AmtRec:	0.98g,in	BESD1725 03/31/11,pd #Containers: 1		1.4004g 1.3997g 0.7mg		71C			Scr: Alpha: Beta:

18103

TestAmerica Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.6.4a

TestAmerica Laboratories, Inc.

55

4/12/2011 10:21:23 PM

Sample Preparation/Analysis

Balance Id:1120373922

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: 1097257 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

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:

Comments: MGNE9-SAMP "ISV. Recount DUP on a different detector."

Sample #2(MGNF9) + #3 (DUP.) too heavy!. Gave information to Tom to initiate a rerun. (B 4-13-11

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

MGNE91AC-SAMP Constituent List:
BETA RDL:1.50E+01 pCi/g LCL: UCL: RPD:
MGN4F1AA-BLK:
BETA RDL:1.50E+01 pCi/g LCL: UCL: RPD:
MGN4F1AC-LCS:
Sr-90 RDL: pCi/g LCL:70 UCL:130 RPD:35

MGNE91AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MGN4F1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MGN4F1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

4/15/2011 10:28:49 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/15/2010, 4/20/2011, Batch: '1097257', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097257						
AC		Rev1C	BouslaughP	4/8/2011 1:50:46 PM		
SC			Maucieris	IsBatched	4/7/2011 12:10:15 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	Prep1C	4/8/2011 1:50:46 PM	RL-PRP-003 REVISION 1
SC			WoodT	InPrep	4/12/2011 10:14:44 PM	RL-GAM-001 REVISION 1
SC			WoodT	InPrep	4/12/2011 10:14:59 PM	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	4/12/2011 10:22:30 PM	RL-PRP-003 REVISION 1
SC			BockJ	InPrep2	4/13/2011 8:30:13 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	4/13/2011 3:22:10 PM	RL-GPC-001 REVISION 1
SC			ClarkR	InCnt1	4/13/2011 3:30:36 PM	RL-CI-006 REVISION 1
SC			DawkinsO	CalcC	4/13/2011 11:34:09 PM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/15/2011 10:28:43 AM	RL-DR-001 Rev 2
AC			**WoodT**	4/12/2011 10:14:44		
AC			**WoodT**	4/12/2011 10:14:59		
AC			**WoodT**	4/12/2011 10:22:30		
AC			**BockJ**	4/13/2011 8:30:13		
AC			**BockJ**	4/13/2011 3:22:10 PM		
AC			**ClarkR**	4/13/2011 3:30:36 PM		
AC			**DawkinsO**	4/13/2011 11:34:09		
AC			**mcginnist**	4/15/2011 10:28:43		

AC: Accepting Entry; SC: Status Change

4/14/2011 12:18:40 AM

Sample Preparation/Analysis

Balance Id:1120373922

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 #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT / Bock

AnalyDueDate: 04/13/2011

Batch: 1103387 OTHER pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None All Tests: 1097254 AXTA, 1097256 AYS7, 1097257 BBS8, 1103384 AYS7, 1103387 BBS8,

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 MGNF9-2-AC J1D070437-1-SAMP 04/01/2011 10:55	1.01g	20.00g,in AmtRec: 1X500MLP	#Containers: 1	1.5	1.5590 g 1.3880 g 171.0 mg	200	27A	1639	4/14/11	Scr: Alpha: Beta:
2 MGNF9-2-AE-X J1D070437-1-DUP 04/01/2011 10:55	1.01g	19.97g,in AmtRec: 1X500MLP	#Containers: 1		1.5921 g 1.4155 g 176.6 mg		27B			Scr: Alpha: Beta:
3 MG0R4-1-AA-B J1D130000-387-BLK 04/13/2011 16:11 pd		20.04g,in AmtRec:	#Containers: 1		1.3911 g 1.3908 g 0.3 mg		27C			Scr: Alpha: Beta:
4 MG0R4-1-AC-C J1D130000-387-LCS 04/13/2011 16:11 pd		20.51g,in AmtRec:	BESD1729 03/31/11,pd 10/01/01,r #Containers: 1		1.3956 g 1.3952 g 0.4 mg		27D			Scr: Alpha: Beta:

Comments:

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

18104

MGNF92AC-SAMP Constituent List:

MG0R41AA-BLK:

MG0R41AC-LCS:

MGNF92AC-SAMP Calc Info:

4/14/2011 12:18:40 AM

Sample Preparation/Analysis

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

Balance Id:1120373922
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,WoodT

AnalyDueDate: 04/13/2011

Batch: 1103387 pCi/g
SEQ Batch, Test: None

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
MG0R41AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MG0R41AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

4/15/2011 10:34:37 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/15/2010, 4/20/2011, Batch: '1103387', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus		Accepting		Comments
1103387						
AC		Rev1C	WoodT	4/14/2011		
SC			mcginnist	IsBatched	4/13/2011 4:42:11 PM	ICOC_RADCALC v4.8.49
SC			WoodT	InPrep	4/14/2011	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	4/14/2011 12:10:50 AM	RL-PRP-003 REVISION 1
SC			BockJ	InPrep2	4/14/2011 7:44:29 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	4/14/2011 1:10:13 PM	RL-GPC-001 REVISION 1
SC			BlackCL	InCnt1	4/14/2011 1:14:25 PM	RL-CI-006 REVISION 1
SC			DawkinsO	CalcC	4/14/2011 11:59:11 PM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/15/2011 10:34:32 AM	RL-DR-001 Rev 2
AC			WoodT	4/14/2011 12:10:50		
AC			BockJ	4/14/2011 7:44:29		
AC			BockJ	4/14/2011 1:10:13 PM		
AC			BlackCL	4/14/2011 1:14:25 PM		
AC			DawkinsO	4/14/2011 11:59:11		
AC			mcginnist	4/15/2011 10:34:32		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions v4.8.44

4/8/2011 10:52:06 AM

Sample Preparation/Analysis

Balance Id:1120421763

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

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

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: BouslaughP

AnalyDueDate: 04/13/2011

Batch: 1097254 OTHER pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None

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 MGNE9-1-AD J1D070427-1-SAMP 04/01/2011 10:45			30.10g,in AmtRec: 1X500MLP	30.10g #Containers: 1		25ml	200min	611	0801	4/11/11	
								Scr:	Alpha:		Beta:
2 MGNE9-1-AE-X J1D070427-1-DUP 04/01/2011 10:45			AmtRec: 1X500MLP	#Containers: 1				614	1126		
								Scr:	Alpha:		Beta:
3 MGNF9-1-AD J1D070437-1-SAMP 04/01/2011 10:55			28.90g,in AmtRec: 1X500MLP	28.90g #Containers: 1				611	1135		
								Scr:	Alpha:		Beta:
4 MGNGG-1-AD J1D070437-2-SAMP 04/01/2011 10:05			22.80g,in AmtRec: 1X500MLP	22.80g #Containers: 1				614	1500	4/11/11	
								Scr:	Alpha:		Beta:
5 MGNG3-1-AD J1D070443-1-SAMP 04/01/2011 09:00			317.20g,in AmtRec: 1X500MLP	317.20g #Containers: 1		S 200		610	0935	4/11/11	
								Scr:	Alpha:		Beta:
6 MGN30-1-AA-B J1D070000-254-BLK 04/07/2011 12:05 pd			348.00g,in AmtRec:	348.00g #Containers: 1				610	0807		
								Scr:	Alpha:		Beta:
7 MGN30-1-AC-C J1D070000-254-LCS 04/07/2011 12:05 pd			350.10g,in AmtRec:	350.10g #Containers: 1	QC20009 08/04/09,pd 09/01/09,r			610	1127	4/11/11	
								Scr:	Alpha:		Beta:

TestAmerica Laboratories, Inc.

TestAmerica Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.49

4/8/2011 10:52:06 AM

Sample Preparation/Analysis

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

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 04/13/2011

Sep1 DT/Tm Tech:

Batch: 1097254 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

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:

Comments: MGNE9-SAMP "ISV. Recount DUP on a different detector."

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

MGNE91AD-SAMP Constituent List:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

MGN301AA-BLK:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

MGN301AC-LCS:

Cs-137	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35	Cs-137DA	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
K-40	RDL:--	pCi/g	LCL:70	UCL:130	RPD:35	Ra-226	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
RA-228	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35	RA-228DA	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35
U-238	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

MGNE91AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MGN301AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MGN301AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

4/12/2011 3:37:42 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/12/2010, 4/17/2011, Batch: '1097254', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1097254						
AC		Rev1C	BouslaughP	4/8/2011 9:28:54 AM		
SC			Maucieris	IsBatched	4/7/2011 12:10:06 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	4/8/2011 9:28:54 AM	RL-GAM-001 REVISION 1
SC			SannohS	InPrep	4/8/2011 10:46:03 AM	RL-GAM-001 REVISION 1
SC			BlackCL	InCnt1	4/8/2011 11:00:40 AM	RL-CI-007 REVISION 1
SC			DawkinsO	CalcC	4/11/2011 11:21:30 PM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	4/12/2011 3:37:17 PM	RL-DR-001 Rev 2
AC			SannohS	4/8/2011 10:46:03		
AC			BlackCL	4/8/2011 11:00:40		
AC			DawkinsO	4/11/2011 11:21:30		
AC			nortonj	4/12/2011 3:37:17 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

TestAmerica

LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-14332-1

SDG Number: JP0153

Job Description: SAF# RC-073

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
4/14/2011 2:54 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
04/14/2011

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: 280-14332-1

SDG #: JP0153
SAF#: RC-073

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

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H074	280-14332-1	6010/7471/1311-6010-7470/9045/9010/ 9030/8270A/8082/1311-8270A/Oxidizer test	6010B/7471A/1311-6010B-7470A/9045C/9012A/ 9034/8270C/8082/1311-8270C/Oxidizer test
J1H066	280-14332-2	6010/7471/1311-6010-7470/9045/9010/ 9030/8270A/8082/1311-8270A/Oxidizer test	6010B/7471A/1311-6010B-7470A/9045C/9012A/ 9034/8270C/8082/1311-8270C/Oxidizer test
J1H067	280-14332-3	6010/7471/1311-6010-7470/9045/9010/ 9030/8270A/8082/1311-8270A/Oxidizer test	6010B/7471A/1311-6010B-7470A/9045C/9012A/ 9034/8270C/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 samples were received on 4/7/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 5.6 C and 3.4 C.

The Semi-VOA 8270C, TCLP Semi-VOA 1311/8270C and PCBs 8082 volume for samples J1H074, J1H066 and J1H067 were received at the laboratory in plastic containers. To avoid phthalate contamination, samples requesting organic analyses should be submitted in glass containers. The client was notified on 4/8/2011.

The laboratory noted that sample J1H066 is composed of large pieces of rock and other brittle material, and had to be run through the jar crusher prior to any aliquoting or extraction.

GC/MS SEMIVOLATILES - SW846 8270C

Surrogate 2,4,6-Tribromophenol was recovered outside the control limits, biased low, in sample J1H066. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The method specified final extract volume is 1000 uLs; however, due to the nature of the sample matrix, sample J1H067 would not concentrate below 10000 uLs. The reporting limits have been elevated accordingly. The laboratory noted that the sample extract was white-yellow in color and viscous.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, sample J1H067 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required.

Surrogate recoveries have been "D" flagged in sample J1H067, 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 J1H067, 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

The organic prep laboratory noted that sample J1H066 formed emulsions during extraction, and mechanical process was used to break the emulsions.

Surrogate 2,4,6-Tribromophenol was recovered outside the control limits, biased low, in sample J1H066. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

Low levels of 3-Methylphenol & 4-Methylphenol are present in the method blanks associated with batches 280-61482 and 280-61502. Because the concentrations in the method blanks 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 aliquot of the MS/MSD performed on sample J1H074 in batch 280-61482 exhibited a percent recovery outside the control limits for Pentachlorophenol, and the associated sample result has been flagged "T". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1H067 in batch 280-61502 exhibited percent recoveries outside the control limits for Pentachlorophenol, and the associated sample result has been flagged "T". In addition, surrogate 2-Fluorophenol was recovered outside the control limits in the MS aliquot of the MS/MSD. 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

The laboratory noted that a Sulfuric Acid clean-up was performed on the samples presented in this report to reduce matrix interferences.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, sample J1H066 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required.

The specified final extract volume is 5000 uLs; however, due to the nature of the sample matrix, sample J1H067 would not concentrate below 20000 uLs. The reporting limits have been elevated accordingly. The laboratory noted that the sample extract was white-yellow in color and viscous.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the sample matrix interfering with PCB pattern recognition, sample J1H067 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required.

Sample J1H067 appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration. The sample has been quantified and reported as Aroclor 1248; however, due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result. The recovery is an estimated value below the RL.

The RPD between the primary and confirmation columns exceeded 25% for Aroclor 1248 in sample J1H067. The result has been flagged with a "P".

Surrogate recoveries have been "D" flagged in samples J1H066 and J1H067, as the recoveries obtained are calculated from diluted samples and are not considered reliable.

Spike compound recoveries, RPD data and surrogate recoveries have been "D" flagged in the MS/MSD performed on sample J1H066, 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.

TOTAL METALS - SW846 6010B/7471A

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. Sample J1H074 required a 5X dilution prior to the analysis of Silicon to minimize the interference caused by the high Sodium concentration. The reporting limit has been adjusted relative to the dilution required.

Low levels of Lead are present in the method blank associated with batch 280-61310. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Sodium in the Matrix Spike performed on sample J1H074; therefore, control limits are not applicable.

The SW846 6010B duplicate analysis of sample J1H074 exhibited RPD data outside the control limits for Lead, 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.

Mercury was recovered outside the control limits in the Matrix Spike performed on sample J1H066. In addition, Mercury exceeded the RPD limit in the duplicate analysis of sample J1H066. The associated sample result has been flagged "N" and "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 blanks associated with batches 280-61552 and 280-61554. Because the concentrations in the method blanks are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

The Matrix Spike performed on sample J1H074 exhibited percent recoveries outside the control limits for Silver and Mercury, and the associated sample results have 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 duplicate analysis of sample J1H074 exhibited RPD data outside the control limits for Chromium, 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.

The duplicate analysis of sample J1H067 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.

Mercury was recovered outside the control limits in the Matrix Spike performed on sample J1H067, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9012A - TOTAL CYANIDE

The Matrix Spike performed on sample J1H074 exhibited the percent recovery outside the control limits, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9034 - SULFIDE

The Matrix Spike performed on sample J1H066 exhibited the percent recovery outside the control limits, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9045C - PH

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Section	Qualifier	Description
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.
	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.
	*	Surrogate exceeds the control limit
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	The reported value is from a dilution.
	P	This flag is used for an aroclor target analyte where there is greater than 25% difference for detected concentrations between the two GC columns

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

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.
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
TCLP Semivolatiles	TAL DEN	SW846 8270C	
TCLP Extraction	TAL DEN		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL DEN		SW846 3510C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
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
Total Cyanide (Automated Colorimetric]	TAL DEN	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL DEN		SW846 9012A
Sulfide, Acid Soluble and Insoluble (Titrimetric)	TAL DEN	SW846 9034	
Sulfide, Distillation (Acid Soluble and Insoluble)	TAL DEN		SW846 9030B
pH	TAL DEN	SW846 9045C	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8270C	Tinkham, Sarah A	SAT
SW846 8082	Pavlakovich, Adam M	AMP
SW846 6010B	Harre, John K	JKH
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Stoltz, Katie	KS
SW846 9012A	Kilker, Lorelei M	LMK
SW846 9034	Plumb, Paul M	PMP
SW846 9045C	Taylor, Juli M	JMT
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-14332-1	J1H074	Solid	04/01/2011 1055	04/07/2011 0930
280-14332-2	J1H066	Solid	04/01/2011 1005	04/07/2011 0930
280-14332-3	J1H067	Solid	04/01/2011 0900	04/07/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9419.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	04/08/2011 2200			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		19	U	19	590
Acenaphthylene		32	J	31	590
Anthracene		31	U	31	590
Benzo[a]anthracene		36	U	36	590
Benzo[a]pyrene		36	U	36	590
Benzo[b]fluoranthene		47	U	47	590
Benzo[ghi]perylene		29	U	29	590
Benzo[k]fluoranthene		72	U	72	590
Bis(2-chloroethoxy)methane		41	U	41	590
Bis(2-chloroethyl)ether		30	U	30	590
bis (2-chloroisopropyl) ether		41	U	41	590
Bis(2-ethylhexyl) phthalate		140	J	83	590
4-Bromophenyl phenyl ether		34	U	34	590
Butyl benzyl phthalate		77	U	77	590
Carbazole		65	U	65	590
4-Chloroaniline		150	U	150	590
4-Chloro-3-methylphenol		120	U	120	590
2-Chloronaphthalene		18	U	18	590
2-Chlorophenol		38	U	38	590
4-Chlorophenyl phenyl ether		38	U	38	590
Chrysene		49	U	49	590
Dibenz(a,h)anthracene		34	U	34	590
Dibenzofuran		36	U	36	590
1,2-Dichlorobenzene		40	U	40	590
1,3-Dichlorobenzene		22	U	22	590
1,4-Dichlorobenzene		24	U	24	590
3,3'-Dichlorobenzidine		160	U	160	1200
2,4-Dichlorophenol		18	U	18	590
Diethyl phthalate		47	U	47	590
2,4-Dimethylphenol		120	U	120	590
Dimethyl phthalate		41	U	41	590
Di-n-butyl phthalate		52	U	52	590
4,6-Dinitro-2-methylphenol		590	U	590	1200
2,4-Dinitrophenol		600	U	600	1500
2,4-Dinitrotoluene		120	U	120	590
2,6-Dinitrotoluene		50	U	50	590
Di-n-octyl phthalate		200	J	26	590
Fluoranthene		65	U	65	590
Fluorene		32	U	32	590
Hexachlorobenzene		52	U	52	590
Hexachlorobutadiene		18	U	18	590
Hexachlorocyclopentadiene		90	U	90	590
Hexachloroethane		38	U	38	590
Indeno[1,2,3-cd]pyrene		40	U	40	590
Isophorone		31	U	31	590
2-Methylnaphthalene		34	U	34	590

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9419.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	04/08/2011 2200			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		23	U	23	590
3 & 4 Methylphenol		59	U	59	590
Naphthalene		56	U	56	590
2-Nitroaniline		90	U	90	590
3-Nitroaniline		130	U	130	590
4-Nitroaniline		130	U	130	590
Nitrobenzene		40	U	40	590
2-Nitrophenol		18	U	18	590
4-Nitrophenol		170	U	170	1200
N-Nitrosodi-n-propylamine		56	U	56	590
N-Nitrosodiphenylamine		38	U	38	590
Pentachlorophenol		590	U	590	1200
Phenanthrene		31	U	31	590
Phenol		32	U	32	590
Pyrene		22	U	22	590
1,2,4-Trichlorobenzene		50	U	50	590
2,4,5-Trichlorophenol		18	U	18	590
2,4,6-Trichlorophenol		18	U	18	590

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	71		50 - 120
2-Fluorophenol	76		53 - 120
Nitrobenzene-d5	73		50 - 120
Phenol-d5	79		52 - 120
Terphenyl-d14	90		55 - 120
2,4,6-Tribromophenol	74		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9419.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	04/08/2011 2200			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **8**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.68	7500	N J
	Unknown	2.77	340	N J
2213-23-2	Heptane, 2,4-dimethyl-	2.96	300	N J
	Unknown	3.08	310	N J
	Unknown	3.16	5000	N J
	Unknown	11.11	740	N J
	Unknown	11.28	340	N J
	Unknown	12.24	580	N J

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid

Date Sampled: 04/01/2011 1055
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:	280-61482	Lab File ID:	G6_2005.D
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	210 mL
Analysis Date:	04/11/2011 2148			Final Weight/Volume:	1000 uL
Prep Date:	04/08/2011 1924			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Methylphenol	0.0047	U	0.0047	0.048
3-Methylphenol & 4-Methylphenol	0.0013	J B	0.0012	0.048
1,4-Dichlorobenzene	0.0015	U	0.0015	0.019
2,4-Dinitrotoluene	0.0079	U	0.0079	0.048
Hexachlorobenzene	0.0031	U	0.0031	0.048
Hexachlorobutadiene	0.016	U	0.016	0.048
Hexachloroethane	0.010	U	0.010	0.048
Nitrobenzene	0.0039	U	0.0039	0.048
Pentachlorophenol	0.0048	U T	0.0048	0.24
Pyridine	0.0054	U	0.0054	0.095
2,4,6-Trichlorophenol	0.0013	U	0.0013	0.024
2,4,5-Trichlorophenol	0.0021	U	0.0021	0.048

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	71		49 - 120
2-Fluorophenol	73		50 - 120
Phenol-d5	77		47 - 120
2,4,6-Tribromophenol	83		51 - 120
Terphenyl-d14	95		56 - 120
Nitrobenzene-d5	82		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid
% Moisture: 1.1

Date Sampled: 04/01/2011 1005
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9420.D
Dilution:	1.0			Initial Weight/Volume:	31.1 g
Analysis Date:	04/08/2011 2220			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	320
Acenaphthylene		33	J	17	320
Anthracene		17	U	17	320
Benzo[a]anthracene		20	U	20	320
Benzo[a]pyrene		20	U	20	320
Benzo[b]fluoranthene		26	U	26	320
Benzo[ghi]perylene		16	U	16	320
Benzo[k]fluoranthene		39	U	39	320
Bis(2-chloroethoxy)methane		22	U	22	320
Bis(2-chloroethyl)ether		16	U	16	320
bis (2-chloroisopropyl) ether		22	U	22	320
Bis(2-ethylhexyl) phthalate		210	J	45	320
4-Bromophenyl phenyl ether		19	U	19	320
Butyl benzyl phthalate		42	U	42	320
Carbazole		35	U	35	320
4-Chloroaniline		80	U	80	320
4-Chloro-3-methylphenol		64	U	64	320
2-Chloronaphthalene		9.8	U	9.8	320
2-Chlorophenol		20	U	20	320
4-Chlorophenyl phenyl ether		20	U	20	320
Chrysene		26	U	26	320
Dibenz(a,h)anthracene		19	U	19	320
Dibenzofuran		20	U	20	320
1,2-Dichlorobenzene		21	U	21	320
1,3-Dichlorobenzene		12	U	12	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		88	U	88	640
2,4-Dichlorophenol		9.8	U	9.8	320
Diethyl phthalate		25	U	25	320
2,4-Dimethylphenol		64	U	64	320
Dimethyl phthalate		22	U	22	320
Di-n-butyl phthalate		28	U	28	320
4,6-Dinitro-2-methylphenol		320	U	320	640
2,4-Dinitrophenol		320	U	320	800
2,4-Dinitrotoluene		64	U	64	320
2,6-Dinitrotoluene		27	U	27	320
Di-n-octyl phthalate		14	U	14	320
Fluoranthene		35	U	35	320
Fluorene		18	U	18	320
Hexachlorobenzene		28	U	28	320
Hexachlorobutadiene		9.8	U	9.8	320
Hexachlorocyclopentadiene		49	U	49	320
Hexachloroethane		21	U	21	320
Indeno[1,2,3-cd]pyrene		21	U	21	320
Isophorone		17	U	17	320
2-Methylnaphthalene		19	U	19	320

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid
% Moisture: 1.1

Date Sampled: 04/01/2011 1005
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9420.D
Dilution:	1.0			Initial Weight/Volume:	31.1 g
Analysis Date:	04/08/2011 2220			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	320
3 & 4 Methylphenol		32	U	32	320
Naphthalene		30	U	30	320
2-Nitroaniline		49	U	49	320
3-Nitroaniline		71	U	71	320
4-Nitroaniline		71	U	71	320
Nitrobenzene		21	U	21	320
2-Nitrophenol		9.8	U	9.8	320
4-Nitrophenol		95	U	95	640
N-Nitrosodi-n-propylamine		30	U	30	320
N-Nitrosodiphenylamine		20	U	20	320
Pentachlorophenol		320	U	320	640
Phenanthrene		19	J	17	320
Phenol		18	U	18	320
Pyrene		12	U	12	320
1,2,4-Trichlorobenzene		27	U	27	320
2,4,5-Trichlorophenol		9.8	U	9.8	320
2,4,6-Trichlorophenol		9.8	U	9.8	320

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	76		50 - 120
2-Fluorophenol	80		53 - 120
Nitrobenzene-d5	75		50 - 120
Phenol-d5	83		52 - 120
Terphenyl-d14	88		55 - 120
2,4,6-Tribromophenol	2	*	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid % Moisture: 1.1

Date Sampled: 04/01/2011 1005
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9420.D
Dilution:	1.0			Initial Weight/Volume:	31.1 g
Analysis Date:	04/08/2011 2220			Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.34	7000	N J
141-79-7	3-Penten-2-one, 4-methyl-	2.80	67000	N J
	Unknown	3.17	9300	N J
504-20-1	2,5-Heptadien-4-one, 2,6-dimethyl-	5.27	4600	N J
	Unknown	5.97	2400	N J
7755-92-2	1-Piperazinecarboxaldehyde	6.14	2200	N J
	Unknown	8.48	1100	N J
	Unknown	8.79	12000	N J
	Unknown	9.02	1800	N J
	Unknown	9.14	1100	N J
	Unknown	9.43	1400	N J
	Unknown	9.58	5900	N J
	Unknown	9.70	2000	N J
	Unknown	9.95	10000	N J
	Unknown	9.98	1600	N J
	Unknown	10.16	2600	N J
	Unknown	10.27	1700	N J
	Unknown	10.58	3700	N J
	Unknown	11.14	2100	N J
	Unknown	11.59	3100	N J

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid

Date Sampled: 04/01/2011 1005
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:	280-61502	Lab File ID:	G6_1995.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 1841			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	0.0020	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	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	69		49 - 120
2-Fluorophenol	59		50 - 120
Phenol-d5	65		47 - 120
2,4,6-Tribromophenol	18	*	51 - 120
Terphenyl-d14	83		56 - 120
Nitrobenzene-d5	62		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid
% Moisture: 2.0

Date Sampled: 04/01/2011 0900
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9421.D
Dilution:	10			Initial Weight/Volume:	30.3 g
Analysis Date:	04/08/2011 2240			Final Weight/Volume:	10000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		1000	U D	1000	33000
Acenaphthylene		1700	U D	1700	33000
Anthracene		1700	U D	1700	33000
Benzo[a]anthracene		2000	U D	2000	33000
Benzo[a]pyrene		2000	U D	2000	33000
Benzo[b]fluoranthene		2600	U D	2600	33000
Benzo[ghi]perylene		1600	U D	1600	33000
Benzo[k]fluoranthene		4000	U D	4000	33000
Bis(2-chloroethoxy)methane		2300	U D	2300	33000
Bis(2-chloroethyl)ether		1700	U D	1700	33000
bis (2-chloroisopropyl) ether		2300	U D	2300	33000
Bis(2-ethylhexyl) phthalate		7900	J D	4600	33000
4-Bromophenyl phenyl ether		1900	U D	1900	33000
Butyl benzyl phthalate		4300	U D	4300	33000
Carbazole		3600	U D	3600	33000
4-Chloroaniline		8300	U D	8300	33000
4-Chloro-3-methylphenol		6700	U D	6700	33000
2-Chloronaphthalene		1000	U D	1000	33000
2-Chlorophenol		2100	U D	2100	33000
4-Chlorophenyl phenyl ether		2100	U D	2100	33000
Chrysene		2700	U D	2700	33000
Dibenz(a,h)anthracene		1900	U D	1900	33000
Dibenzofuran		2000	U D	2000	33000
1,2-Dichlorobenzene		2200	U D	2200	33000
1,3-Dichlorobenzene		1200	U D	1200	33000
1,4-Dichlorobenzene		1400	U D	1400	33000
3,3'-Dichlorobenzidine		9100	U D	9100	67000
2,4-Dichlorophenol		1000	U D	1000	33000
Diethyl phthalate		2600	U D	2600	33000
2,4-Dimethylphenol		6700	U D	6700	33000
Dimethyl phthalate		2300	U D	2300	33000
Di-n-butyl phthalate		2900	U D	2900	33000
4,6-Dinitro-2-methylphenol		33000	U D	33000	67000
2,4-Dinitrophenol		34000	U D	34000	83000
2,4-Dinitrotoluene		6700	U D	6700	33000
2,6-Dinitrotoluene		2800	U D	2800	33000
Di-n-octyl phthalate		1500	U D	1500	33000
Fluoranthene		3600	U D	3600	33000
Fluorene		1800	U D	1800	33000
Hexachlorobenzene		2900	U D	2900	33000
Hexachlorobutadiene		1000	U D	1000	33000
Hexachlorocyclopentadiene		5100	U D	5100	33000
Hexachloroethane		2200	U D	2200	33000
Indeno[1,2,3-cd]pyrene		2200	U D	2200	33000
Isophorone		1700	U D	1700	33000
2-Methylnaphthalene		1900	U D	1900	33000

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid
% Moisture: 2.0

Date Sampled: 04/01/2011 0900
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9421.D
Dilution:	10			Initial Weight/Volume:	30.3 g
Analysis Date:	04/08/2011 2240			Final Weight/Volume:	10000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		15000	J D	1300	33000
3 & 4 Methylphenol		3300	U D	3300	33000
Naphthalene		3100	U D	3100	33000
2-Nitroaniline		5100	U D	5100	33000
3-Nitroaniline		7400	U D	7400	33000
4-Nitroaniline		7300	U D	7300	33000
Nitrobenzene		2200	U D	2200	33000
2-Nitrophenol		1000	U D	1000	33000
4-Nitrophenol		9800	U D	9800	67000
N-Nitrosodi-n-propylamine		3100	U D	3100	33000
N-Nitrosodiphenylamine		2100	U D	2100	33000
Pentachlorophenol		33000	U D	33000	67000
Phenanthrene		1700	U D	1700	33000
Phenol		1800	U D	1800	33000
Pyrene		1200	U D	1200	33000
1,2,4-Trichlorobenzene		2800	U D	2800	33000
2,4,5-Trichlorophenol		1000	U D	1000	33000
2,4,6-Trichlorophenol		1000	U D	1000	33000

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	50 - 120
2-Fluorophenol	0	D	53 - 120
Nitrobenzene-d5	0	D	50 - 120
Phenol-d5	0	D	52 - 120
Terphenyl-d14	75	D	55 - 120
2,4,6-Tribromophenol	0	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid % Moisture: 2.0

Date Sampled: 04/01/2011 0900
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:	3550C	Prep Batch:	280-61272	Lab File ID:	Y9421.D
Dilution:	10			Initial Weight/Volume:	30.3 g
Analysis Date:	04/08/2011 2240			Final Weight/Volume:	10000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **14**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	6.14	18000	N J
540-97-6	Cyclohexasiloxane, dodecamethyl-	6.28	16000	N J
	Unknown	6.55	18000	N J
	Unknown	7.18	14000	N J
	Unknown	7.91	24000	N J
	Unknown	8.48	16000	N J
	Unknown	8.96	17000	N J
	Unknown	9.37	18000	N J
	Unknown	9.54	25000	N J
	Unknown	9.74	17000	N J
	Unknown	10.39	30000	N J
	Unknown	10.69	21000	N J
	Unknown	10.97	19000	N J
	Unknown	11.54	25000	N J

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid

Date Sampled: 04/01/2011 0900
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:	280-61502	Lab File ID:	G6_1996.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	206 mL
Analysis Date:	04/11/2011 1859			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	0.0048	U	0.0048	0.049
3-Methylphenol & 4-Methylphenol	0.0012	U	0.0012	0.049
1,4-Dichlorobenzene	0.0016	U	0.0016	0.019
2,4-Dinitrotoluene	0.0081	U	0.0081	0.049
Hexachlorobenzene	0.0032	U	0.0032	0.049
Hexachlorobutadiene	0.016	U	0.016	0.049
Hexachloroethane	0.010	U	0.010	0.049
Nitrobenzene	0.0039	U	0.0039	0.049
Pentachlorophenol	0.0049	U T	0.0049	0.24
Pyridine	0.0055	U	0.0055	0.097
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.024
2,4,5-Trichlorophenol	0.0021	U	0.0021	0.049

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	67		49 - 120
2-Fluorophenol	64		50 - 120
Phenol-d5	66		47 - 120
2,4,6-Tribromophenol	56		51 - 120
Terphenyl-d14	94		56 - 120
Nitrobenzene-d5	73		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
Date Received: 04/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-61812	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-61282	Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/09/2011 1600			Injection Volume:	1 uL
Prep Date:	04/07/2011 2345			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		5.1	U	5.1	19
Aroclor 1221		15	U	15	31
Aroclor 1232		3.7	U	3.7	19
Aroclor 1242		8.6	U	8.6	19
Aroclor 1248		8.6	U	8.6	19
Aroclor 1254		4.8	U	4.8	19
Aroclor 1260		4.8	U	4.8	19

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	85		59 - 130
Tetrachloro-m-xylene	71		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid
% Moisture: 1.1

Date Sampled: 04/01/2011 1005
Date Received: 04/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-61814	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-61282	Initial Weight/Volume:	32.9 g
Dilution:	10			Final Weight/Volume:	5000 uL
Analysis Date:	04/11/2011 1354			Injection Volume:	1 uL
Prep Date:	04/07/2011 2345			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		26	U D	26	92
Aroclor 1221		74	U D	74	150
Aroclor 1232		18	U D	18	92
Aroclor 1242		43	U D	43	92
Aroclor 1248		640	D	43	92
Aroclor 1254		24	U D	24	92
Aroclor 1260		24	U D	24	92

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	89	D	59 - 130
Tetrachloro-m-xylene	102	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid
% Moisture: 2.0

Date Sampled: 04/01/2011 0900
Date Received: 04/07/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-61814	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-61282	Initial Weight/Volume:	32.6 g
Dilution:	10			Final Weight/Volume:	20000 uL
Analysis Date:	04/11/2011 1458			Injection Volume:	1 uL
Prep Date:	04/07/2011 2345			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		100	U D	100	380
Aroclor 1221		300	U D	300	620
Aroclor 1232		75	U D	75	380
Aroclor 1242		180	U D	180	380
Aroclor 1248		260	J D P	180	380
Aroclor 1254		98	U D	98	380
Aroclor 1260		98	U D	98	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	18	D	59 - 130
Tetrachloro-m-xylene	164	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
Date Received: 04/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61747	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	04/11/2011 1138			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		84.1		2.5	8.2
Antimony		8.9		0.62	0.99
Arsenic		70.2		1.1	1.6
Barium		1.9		0.12	0.82
Beryllium		0.054	U	0.054	0.33
Boron		4.1		1.6	3.3
Cadmium		1.6		0.067	0.33
Calcium		149		23.2	82.2
Chromium		0.51		0.095	0.33
Cobalt		0.16	U	0.16	1.6
Copper		0.68	B	0.36	1.6
Iron		203		6.2	8.2
Lead		6.3	M	0.44	0.82
Magnesium		62.2		6.1	32.9
Manganese		3.6		0.16	1.6
Molybdenum		0.49	B	0.43	3.3
Nickel		0.58	B	0.20	6.6
Potassium		537		67.4	493
Selenium		1.4	U	1.4	1.6
Silver		0.26	U	0.26	0.33
Sodium		407000		97.0	197
Vanadium		0.45	B	0.15	3.3
Zinc		4.1		0.65	1.6

Analysis Method:	6010B	Analysis Batch:	280-61972	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	5.0			Initial Weight/Volume:	1.13 g
Analysis Date:	04/13/2011 0631			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		114		46.5	82.2

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-61790	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61552	Lab File ID:	25A6041111.asc
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0717			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

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid

Date Sampled: 04/01/2011 1055
Date Received: 04/07/2011 0930

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		1.9		0.022	0.50
Barium		0.048	B C	0.0020	1.0
Cadmium		0.040	B	0.0020	0.10
Chromium		0.0088	B M	0.0030	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0053	B N C	0.0040	0.50

Analysis Method:	6010B	Analysis Batch:	280-61966	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61552	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 1547			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
Lead		0.036	B	0.013	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-61752	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-61585	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1626			Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

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

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61753	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	04/11/2011 1447			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0096	U	0.0096	0.030

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid % Moisture: 1.1

Date Sampled: 04/01/2011 1005
Date Received: 04/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61747	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	04/11/2011 1150			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9990		1.5	5.0
Antimony		4.5		0.38	0.60
Arsenic		9.1		0.65	0.99
Barium		87.0		0.075	0.50
Beryllium		0.14	B	0.033	0.20
Boron		10.7		0.97	2.0
Cadmium		2.8		0.041	0.20
Calcium		7050		14.0	49.6
Chromium		18.2		0.058	0.20
Cobalt		8.6		0.099	0.99
Copper		142		0.22	0.99
Iron		20600		3.8	5.0
Lead		88.3		0.27	0.50
Magnesium		5080		3.7	19.8
Manganese		394		0.099	0.99
Molybdenum		4.9		0.26	2.0
Nickel		65.9		0.12	4.0
Potassium		1600		40.7	298
Selenium		3.8		0.85	0.99
Silver		0.98		0.16	0.20
Sodium		1310		58.5	119
Vanadium		49.9		0.093	2.0
Zinc		694		0.39	0.99

Analysis Method:	6010B	Analysis Batch:	280-61972	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	04/13/2011 0640			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		268		5.6	9.9

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-61791	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0743			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

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid

Date Sampled: 04/01/2011 1005
Date Received: 04/07/2011 0930

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.47	B	0.0020	1.0
Cadmium		0.030	B	0.0020	0.10
Chromium		0.078	B	0.0030	0.50
Lead		0.16	B	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0060	B C	0.0040	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-61752	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1637			Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

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

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61753	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	04/11/2011 1449			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.016	B N M	0.0056	0.017

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid

% Moisture: 2.0

Date Sampled: 04/01/2011 0900
Date Received: 04/07/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-61747	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	04/11/2011 1152			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		1950		1.4	4.4
Antimony		0.33	U	0.33	0.52
Arsenic		1.7		0.58	0.87
Barium		33.7		0.066	0.44
Beryllium		0.029	U	0.029	0.17
Boron		9.8		0.86	1.7
Cadmium		0.036	U	0.036	0.17
Calcium		4240		12.3	43.6
Chromium		4.6		0.051	0.17
Cobalt		13.9		0.087	0.87
Copper		12.1		0.19	0.87
Iron		23700		3.3	4.4
Lead		1.6	C	0.24	0.44
Magnesium		2490		3.2	17.5
Manganese		192		0.087	0.87
Molybdenum		2.4		0.23	1.7
Nickel		10.8		0.11	3.5
Potassium		385		35.8	262
Selenium		0.75	U	0.75	0.87
Silver		0.14	U	0.14	0.17
Sodium		203		51.5	105
Vanadium		13.2		0.082	1.7
Zinc		26.1		0.35	0.87

Analysis Method:	6010B	Analysis Batch:	280-61972	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	04/13/2011 0643			Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		2440		4.9	8.7

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-61791	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0745			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

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid

Date Sampled: 04/01/2011 0900
Date Received: 04/07/2011 0930

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.085	B C	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.0030	B	0.0030	0.50
Lead		0.013	U	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0063	B M C	0.0040	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-61752	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1639			Final Weight/Volume:	30 mL
Prep Date:	04/11/2011 1115				
Leach Date:	04/07/2011 2305				

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

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-61753	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	04/11/2011 1456			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0073	B	0.0049	0.015

General Chemistry

Client Sample ID: **J1H074**

Lab Sample ID: 280-14332-1
Client Matrix: Solid
% Moisture: 46.2

Date Sampled: 04/01/2011 1055
Date Received: 04/07/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Cyanide	0.19	U N	mg/Kg	0.19	0.90	1.0	9012A
Analysis Batch: 280-61529	Analysis Date: 04/09/2011 1301						DryWt Corrected: Y
Prep Batch: 280-61349	Prep Date: 04/08/2011 0909						
Sulfide	4.5	U	mg/Kg	4.5	9.4	1.0	9034
Analysis Batch: 280-61449	Analysis Date: 04/08/2011 1442						DryWt Corrected: Y
Prep Batch: 280-61386	Prep Date: 04/08/2011 1050						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	9.01		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-61510	Analysis Date: 04/08/2011 1057						DryWt Corrected: N
Percent Moisture	46.2		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-61337	Analysis Date: 04/08/2011 0840						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

General Chemistry

Client Sample ID: **J1H066**

Lab Sample ID: 280-14332-2
Client Matrix: Solid
% Moisture: 1.1

Date Sampled: 04/01/2011 1005
Date Received: 04/07/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Cyanide	0.39	B	mg/Kg	0.10	0.49	1.0	9012A
Analysis Batch: 280-61529	Analysis Date: 04/09/2011 1311						DryWt Corrected: Y
Prep Batch: 280-61349	Prep Date: 04/08/2011 0909						
Sulfide	106	N	mg/Kg	2.4	5.0	1.0	9034
Analysis Batch: 280-61449	Analysis Date: 04/08/2011 1442						DryWt Corrected: Y
Prep Batch: 280-61386	Prep Date: 04/08/2011 1050						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	9.33		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-61510	Analysis Date: 04/08/2011 1058						DryWt Corrected: N
Percent Moisture	1.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-61337	Analysis Date: 04/08/2011 0840						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1H067**

Lab Sample ID: 280-14332-3
Client Matrix: Solid
% Moisture: 2.0

Date Sampled: 04/01/2011 0900
Date Received: 04/07/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Cyanide	0.11	U	mg/Kg	0.11	0.52	1.0	9012A
Analysis Batch: 280-61529	Analysis Date: 04/09/2011 1314						DryWt Corrected: Y
Prep Batch: 280-61349	Prep Date: 04/08/2011 0909						
Sulfide	2.4	U	mg/Kg	2.4	5.1	1.0	9034
Analysis Batch: 280-61449	Analysis Date: 04/08/2011 1442						DryWt Corrected: Y
Prep Batch: 280-61386	Prep Date: 04/08/2011 1050						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	7.69		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-61510	Analysis Date: 04/08/2011 1101						DryWt Corrected: N
Percent Moisture	2.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-61337	Analysis Date: 04/08/2011 0840						DryWt Corrected: N

Inorganic Data Summary Report
Physical Testing Observation

Client: WC-HANFORD RC-073
SDG#: JP0153

JOB#: 280-14332-1
Date Received: 4/7/2011

Analyte:	Observation:
Oxidizer	The presence of oxidizers were not indicated using the Spilfyter Chemical Classifier Strips for sample J1H074.
Oxidizer	The presence of oxidizers were not indicated using the Spilfyter Chemical Classifier Strips for sample J1H066.
Oxidizer	The presence of oxidizers were not indicated using the Spilfyter Chemical Classifier Strips for sample J1H067.

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-61272					
LCS 280-61272/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-61272/1-A	Method Blank	T	Solid	3550C	
280-14332-1	J1H074	T	Solid	3550C	
280-14332-2	J1H066	T	Solid	3550C	
280-14332-3	J1H067	T	Solid	3550C	
280-14332-3MS	Matrix Spike	T	Solid	3550C	
280-14332-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-61289					
LCS 280-61289/2-B	Lab Control Sample	P	Solid	1311	
LB2 280-61289/1-B	TCLP SPLPW Leachate Blank	P	Solid	1311	
280-14332-1	J1H074	P	Solid	1311	
280-14332-1MS	Matrix Spike	P	Solid	1311	
280-14332-1MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 280-61290					
LCS 280-61290/2-B	Lab Control Sample	P	Solid	1311	
LB 280-61290/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-14332-2	J1H066	P	Solid	1311	
280-14332-3	J1H067	P	Solid	1311	
280-14332-3MS	Matrix Spike	P	Solid	1311	
280-14332-3MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 280-61482					
LCS 280-61289/2-B	Lab Control Sample	P	Solid	3510C	280-61289
LB2 280-61289/1-B	TCLP SPLPW Leachate Blank	P	Solid	3510C	280-61289
280-14332-1	J1H074	P	Solid	3510C	280-61289
280-14332-1MS	Matrix Spike	P	Solid	3510C	280-61289
280-14332-1MSD	Matrix Spike Duplicate	P	Solid	3510C	280-61289
Prep Batch: 280-61502					
LCS 280-61290/2-B	Lab Control Sample	P	Solid	3510C	280-61290
LB 280-61290/1-B	TCLP SPLPE Leachate Blank	P	Solid	3510C	280-61290
280-14332-2	J1H066	P	Solid	3510C	280-61290
280-14332-3	J1H067	P	Solid	3510C	280-61290
280-14332-3MS	Matrix Spike	P	Solid	3510C	280-61290
280-14332-3MSD	Matrix Spike Duplicate	P	Solid	3510C	280-61290

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:280-61698					
LCS 280-61272/2-A	Lab Control Sample	T	Solid	8270C	280-61272
MB 280-61272/1-A	Method Blank	T	Solid	8270C	280-61272
280-14332-1	J1H074	T	Solid	8270C	280-61272
280-14332-2	J1H066	T	Solid	8270C	280-61272
280-14332-3	J1H067	T	Solid	8270C	280-61272
280-14332-3MS	Matrix Spike	T	Solid	8270C	280-61272
280-14332-3MSD	Matrix Spike Duplicate	T	Solid	8270C	280-61272
Analysis Batch:280-61778					
LCS 280-61289/2-B	Lab Control Sample	P	Solid	8270C	280-61482
LB2 280-61289/1-B	TCLP SPLPW Leachate Blank	P	Solid	8270C	280-61482
LCS 280-61290/2-B	Lab Control Sample	P	Solid	8270C	280-61502
LB 280-61290/1-B	TCLP SPLPE Leachate Blank	P	Solid	8270C	280-61502
280-14332-1	J1H074	P	Solid	8270C	280-61482
280-14332-1MS	Matrix Spike	P	Solid	8270C	280-61482
280-14332-1MSD	Matrix Spike Duplicate	P	Solid	8270C	280-61482
280-14332-2	J1H066	P	Solid	8270C	280-61502
280-14332-3	J1H067	P	Solid	8270C	280-61502
280-14332-3MS	Matrix Spike	P	Solid	8270C	280-61502
280-14332-3MSD	Matrix Spike Duplicate	P	Solid	8270C	280-61502

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-61282					
LCS 280-61282/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-61282/1-A	Method Blank	T	Solid	3550C	
280-14332-1	J1H074	T	Solid	3550C	
280-14332-2	J1H066	T	Solid	3550C	
280-14332-2MS	Matrix Spike	T	Solid	3550C	
280-14332-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-14332-3	J1H067	T	Solid	3550C	
Analysis Batch:280-61812					
LCS 280-61282/2-A	Lab Control Sample	T	Solid	8082	280-61282
MB 280-61282/1-A	Method Blank	T	Solid	8082	280-61282
280-14332-1	J1H074	T	Solid	8082	280-61282
Analysis Batch:280-61813					
LCS 280-61282/2-A	Lab Control Sample	T	Solid	8082	280-61282
MB 280-61282/1-A	Method Blank	T	Solid	8082	280-61282
280-14332-1	J1H074	T	Solid	8082	280-61282
Analysis Batch:280-61814					
280-14332-2	J1H066	T	Solid	8082	280-61282
280-14332-2MS	Matrix Spike	T	Solid	8082	280-61282
280-14332-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-61282
280-14332-3	J1H067	T	Solid	8082	280-61282
Analysis Batch:280-61815					
280-14332-2	J1H066	T	Solid	8082	280-61282
280-14332-2MS	Matrix Spike	T	Solid	8082	280-61282
280-14332-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-61282
280-14332-3	J1H067	T	Solid	8082	280-61282

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-61289					
LCS 280-61289/2-C	Lab Control Sample	P	Solid	1311	
LCS 280-61289/2-D	Lab Control Sample	P	Solid	1311	
LB2 280-61289/1-C	TCLP SPLPW Leachate Blank	P	Solid	1311	
LB2 280-61289/1-D	TCLP SPLPW Leachate Blank	P	Solid	1311	
280-14332-1	J1H074	P	Solid	1311	
280-14332-1DU	Duplicate	P	Solid	1311	
280-14332-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-61290					
LCS 280-61290/2-C	Lab Control Sample	P	Solid	1311	
LCS 280-61290/2-D	Lab Control Sample	P	Solid	1311	
LB 280-61290/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-61290/1-D	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-14332-2	J1H066	P	Solid	1311	
280-14332-3	J1H067	P	Solid	1311	
280-14332-3DU	Duplicate	P	Solid	1311	
280-14332-3MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-61310					
LCS 280-61310/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-61310/1-A	Method Blank	T	Solid	3050B	
280-14332-1	J1H074	T	Solid	3050B	
280-14332-1DU	Duplicate	T	Solid	3050B	
280-14332-1MS	Matrix Spike	T	Solid	3050B	
280-14332-2	J1H066	T	Solid	3050B	
280-14332-3	J1H067	T	Solid	3050B	
Prep Batch: 280-61552					
LCS 280-61289/2-C	Lab Control Sample	P	Solid	3010A	280-61289
LB2 280-61289/1-C	TCLP SPLPW Leachate Blank	P	Solid	3010A	280-61289
280-14332-1	J1H074	P	Solid	3010A	280-61289
280-14332-1DU	Duplicate	P	Solid	3010A	280-61289
280-14332-1MS	Matrix Spike	P	Solid	3010A	280-61289
Prep Batch: 280-61554					
LCS 280-61290/2-C	Lab Control Sample	P	Solid	3010A	280-61290
LB 280-61290/1-C	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-61290
280-14332-2	J1H066	P	Solid	3010A	280-61290
280-14332-3	J1H067	P	Solid	3010A	280-61290
280-14332-3DU	Duplicate	P	Solid	3010A	280-61290
280-14332-3MS	Matrix Spike	P	Solid	3010A	280-61290

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-61585					
LCS 280-61289/2-D	Lab Control Sample	P	Solid	7470A	280-61289
LB2 280-61289/1-D	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-61289
280-14332-1	J1H074	P	Solid	7470A	280-61289
280-14332-1DU	Duplicate	P	Solid	7470A	280-61289
280-14332-1MS	Matrix Spike	P	Solid	7470A	280-61289
Prep Batch: 280-61587					
LCS 280-61290/2-D	Lab Control Sample	P	Solid	7470A	280-61290
LB 280-61290/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-61290
280-14332-2	J1H066	P	Solid	7470A	280-61290
280-14332-3	J1H067	P	Solid	7470A	280-61290
280-14332-3DU	Duplicate	P	Solid	7470A	280-61290
280-14332-3MS	Matrix Spike	P	Solid	7470A	280-61290
Prep Batch: 280-61666					
LCS 280-61666/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-61666/1-A	Method Blank	T	Solid	7471A	
280-14332-1	J1H074	T	Solid	7471A	
280-14332-2	J1H066	T	Solid	7471A	
280-14332-2DU	Duplicate	T	Solid	7471A	
280-14332-2MS	Matrix Spike	T	Solid	7471A	
280-14332-3	J1H067	T	Solid	7471A	
Analysis Batch:280-61747					
LCS 280-61310/2-A	Lab Control Sample	T	Solid	6010B	280-61310
MB 280-61310/1-A	Method Blank	T	Solid	6010B	280-61310
280-14332-1	J1H074	T	Solid	6010B	280-61310
280-14332-1DU	Duplicate	T	Solid	6010B	280-61310
280-14332-1MS	Matrix Spike	T	Solid	6010B	280-61310
280-14332-2	J1H066	T	Solid	6010B	280-61310
280-14332-3	J1H067	T	Solid	6010B	280-61310
Analysis Batch:280-61752					
LCS 280-61289/2-D	Lab Control Sample	P	Solid	7470A	280-61585
LB2 280-61289/1-D	TCLP SPLPW Leachate Blank	P	Solid	7470A	280-61585
LCS 280-61290/2-D	Lab Control Sample	P	Solid	7470A	280-61587
LB 280-61290/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-61587
280-14332-1	J1H074	P	Solid	7470A	280-61585
280-14332-1DU	Duplicate	P	Solid	7470A	280-61585
280-14332-1MS	Matrix Spike	P	Solid	7470A	280-61585
280-14332-2	J1H066	P	Solid	7470A	280-61587
280-14332-3	J1H067	P	Solid	7470A	280-61587
280-14332-3DU	Duplicate	P	Solid	7470A	280-61587
280-14332-3MS	Matrix Spike	P	Solid	7470A	280-61587

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-61753					
LCS 280-61666/2-A	Lab Control Sample	T	Solid	7471A	280-61666
MB 280-61666/1-A	Method Blank	T	Solid	7471A	280-61666
280-14332-1	J1H074	T	Solid	7471A	280-61666
280-14332-2	J1H066	T	Solid	7471A	280-61666
280-14332-2DU	Duplicate	T	Solid	7471A	280-61666
280-14332-2MS	Matrix Spike	T	Solid	7471A	280-61666
280-14332-3	J1H067	T	Solid	7471A	280-61666
Analysis Batch:280-61790					
LCS 280-61289/2-C	Lab Control Sample	P	Solid	6010B	280-61552
LB2 280-61289/1-C	TCLP SPLPW Leachate Blank	P	Solid	6010B	280-61552
280-14332-1	J1H074	P	Solid	6010B	280-61552
280-14332-1DU	Duplicate	P	Solid	6010B	280-61552
280-14332-1MS	Matrix Spike	P	Solid	6010B	280-61552
Analysis Batch:280-61791					
LCS 280-61290/2-C	Lab Control Sample	P	Solid	6010B	280-61554
LB 280-61290/1-C	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-61554
280-14332-2	J1H066	P	Solid	6010B	280-61554
280-14332-3	J1H067	P	Solid	6010B	280-61554
280-14332-3DU	Duplicate	P	Solid	6010B	280-61554
280-14332-3MS	Matrix Spike	P	Solid	6010B	280-61554
Analysis Batch:280-61966					
LCS 280-61289/2-C	Lab Control Sample	P	Solid	6010B	280-61552
LB2 280-61289/1-C	TCLP SPLPW Leachate Blank	P	Solid	6010B	280-61552
280-14332-1	J1H074	P	Solid	6010B	280-61552
280-14332-1DU	Duplicate	P	Solid	6010B	280-61552
280-14332-1MS	Matrix Spike	P	Solid	6010B	280-61552
Analysis Batch:280-61972					
LCS 280-61310/2-A	Lab Control Sample	T	Solid	6010B	280-61310
MB 280-61310/1-A	Method Blank	T	Solid	6010B	280-61310
280-14332-1	J1H074	T	Solid	6010B	280-61310
280-14332-1DU	Duplicate	T	Solid	6010B	280-61310
280-14332-1MS	Matrix Spike	T	Solid	6010B	280-61310
280-14332-2	J1H066	T	Solid	6010B	280-61310
280-14332-3	J1H067	T	Solid	6010B	280-61310

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-61323					
280-14332-1	J1H074	S	Solid	DI Leach	
280-14332-2	J1H066	S	Solid	DI Leach	
280-14332-3	J1H067	S	Solid	DI Leach	
280-14332-3DU	Duplicate	S	Solid	DI Leach	
Analysis Batch:280-61337					
280-14332-1	J1H074	T	Solid	D-2216	
280-14332-1DU	Duplicate	T	Solid	D-2216	
280-14332-2	J1H066	T	Solid	D-2216	
280-14332-3	J1H067	T	Solid	D-2216	
Prep Batch: 280-61349					
HLCS 280-61349/1-A	High Level Control Sample	T	Solid	9012A	
LCS 280-61349/3-A	Lab Control Sample	T	Solid	9012A	
LLCS 280-61349/2-A	Low Level Control Sample	T	Solid	9012A	
MB 280-61349/4-A	Method Blank	T	Solid	9012A	
280-14332-1	J1H074	T	Solid	9012A	
280-14332-1MS	Matrix Spike	T	Solid	9012A	
280-14332-2	J1H066	T	Solid	9012A	
280-14332-2DU	Duplicate	T	Solid	9012A	
280-14332-3	J1H067	T	Solid	9012A	
Prep Batch: 280-61386					
LCS 280-61386/6-A	Lab Control Sample	T	Solid	9030B	
MB 280-61386/7-A	Method Blank	T	Solid	9030B	
280-14332-1	J1H074	T	Solid	9030B	
280-14332-2	J1H066	T	Solid	9030B	
280-14332-2DU	Duplicate	T	Solid	9030B	
280-14332-2MS	Matrix Spike	T	Solid	9030B	
280-14332-3	J1H067	T	Solid	9030B	
Analysis Batch:280-61449					
LCS 280-61386/6-A	Lab Control Sample	T	Solid	9034	280-61386
MB 280-61386/7-A	Method Blank	T	Solid	9034	280-61386
280-14332-1	J1H074	T	Solid	9034	280-61386
280-14332-2	J1H066	T	Solid	9034	280-61386
280-14332-2DU	Duplicate	T	Solid	9034	280-61386
280-14332-2MS	Matrix Spike	T	Solid	9034	280-61386
280-14332-3	J1H067	T	Solid	9034	280-61386

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-61510					
LCS 280-61510/4	Lab Control Sample	T	Water	9045C	
LCSD 280-61510/5	Lab Control Sample Duplicate	T	Water	9045C	
280-14332-1	J1H074	S	Solid	9045C	
280-14332-2	J1H066	S	Solid	9045C	
280-14332-3	J1H067	S	Solid	9045C	
280-14332-3DU	Duplicate	S	Solid	9045C	
Analysis Batch:280-61529					
HLCS 280-61349/1-A	High Level Control Sample	T	Solid	9012A	280-61349
LCS 280-61349/3-A	Lab Control Sample	T	Solid	9012A	280-61349
LLCS 280-61349/2-A	Low Level Control Sample	T	Solid	9012A	280-61349
MB 280-61349/4-A	Method Blank	T	Solid	9012A	280-61349
280-14332-1	J1H074	T	Solid	9012A	280-61349
280-14332-1MS	Matrix Spike	T	Solid	9012A	280-61349
280-14332-2	J1H066	T	Solid	9012A	280-61349
280-14332-2DU	Duplicate	T	Solid	9012A	280-61349
280-14332-3	J1H067	T	Solid	9012A	280-61349

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61272

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-61272/1-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-61272	Lab File ID:	Y9404.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	04/08/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	10	U	10	320
Acenaphthylene	16	U	16	320
Anthracene	16	U	16	320
Benzo[a]anthracene	19	U	19	320
Benzo[a]pyrene	19	U	19	320
Benzo[b]fluoranthene	25	U	25	320
Benzo[ghi]perylene	15	U	15	320
Benzo[k]fluoranthene	39	U	39	320
Bis(2-chloroethoxy)methane	22	U	22	320
Bis(2-chloroethyl)ether	16	U	16	320
bis (2-chloroisopropyl) ether	22	U	22	320
Bis(2-ethylhexyl) phthalate	45	U	45	320
4-Bromophenyl phenyl ether	18	U	18	320
Butyl benzyl phthalate	42	U	42	320
Carbazole	35	U	35	320
4-Chloroaniline	79	U	79	320
4-Chloro-3-methylphenol	64	U	64	320
2-Chloronaphthalene	9.7	U	9.7	320
2-Chlorophenol	20	U	20	320
4-Chlorophenyl phenyl ether	20	U	20	320
Chrysene	26	U	26	320
Dibenz(a,h)anthracene	18	U	18	320
Dibenzofuran	19	U	19	320
1,2-Dichlorobenzene	21	U	21	320
1,3-Dichlorobenzene	12	U	12	320
1,4-Dichlorobenzene	13	U	13	320
3,3'-Dichlorobenzidine	87	U	87	640
2,4-Dichlorophenol	9.7	U	9.7	320
Diethyl phthalate	25	U	25	320
2,4-Dimethylphenol	64	U	64	320
Dimethyl phthalate	22	U	22	320
Di-n-butyl phthalate	28	U	28	320
4,6-Dinitro-2-methylphenol	320	U	320	640
2,4-Dinitrophenol	320	U	320	800
2,4-Dinitrotoluene	64	U	64	320
2,6-Dinitrotoluene	27	U	27	320
Di-n-octyl phthalate	14	U	14	320
Fluoranthene	35	U	35	320
Fluorene	17	U	17	320
Hexachlorobenzene	28	U	28	320
Hexachlorobutadiene	9.7	U	9.7	320
Hexachlorocyclopentadiene	48	U	48	320
Hexachloroethane	21	U	21	320
Indeno[1,2,3-cd]pyrene	21	U	21	320
Isophorone	16	U	16	320

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61272

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-61272/1-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-61272	Lab File ID:	Y9404.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	04/08/2011 1655	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	18	U	18	320
2-Methylphenol	13	U	13	320
3 & 4 Methylphenol	32	U	32	320
Naphthalene	30	U	30	320
2-Nitroaniline	48	U	48	320
3-Nitroaniline	71	U	71	320
4-Nitroaniline	70	U	70	320
Nitrobenzene	21	U	21	320
2-Nitrophenol	9.7	U	9.7	320
4-Nitrophenol	94	U	94	640
N-Nitrosodi-n-propylamine	30	U	30	320
N-Nitrosodiphenylamine	20	U	20	320
Pentachlorophenol	320	U	320	640
Phenanthrene	16	U	16	320
Phenol	17	U	17	320
Pyrene	12	U	12	320
1,2,4-Trichlorobenzene	27	U	27	320
2,4,5-Trichlorophenol	9.7	U	9.7	320
2,4,6-Trichlorophenol	9.7	U	9.7	320

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	79	50 - 120
2-Fluorophenol	83	53 - 120
Nitrobenzene-d5	80	50 - 120
Phenol-d5	85	52 - 120
Terphenyl-d14	96	55 - 120
2,4,6-Tribromophenol	71	51 - 120

Method Blank TICs- Batch: 280-61272

Cas Number	Analyte	RT	Est. Result	Qual
2213-23-2	Heptane, 2,4-dimethyl-	2.96	193	N J
2216-30-0	Heptane, 2,5-dimethyl-	3.08	247	N J
	Unknown	2.90	144	N J
	Unknown	3.16	2940	N J

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample - Batch: 280-61272

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-61272/2-A	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-61272	Lab File ID:	Y9405.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/08/2011 1716	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2640	2230	84	52 - 120	
Anthracene	2640	2440	92	57 - 120	
Carbazole	2640	2450	93	54 - 120	
4-Chloro-3-methylphenol	2640	2410	91	57 - 120	
2-Chlorophenol	2640	2160	82	53 - 120	
1,4-Dichlorobenzene	2640	1960	74	46 - 120	
2,4-Dinitrotoluene	2640	2560	97	53 - 120	
2-Methylnaphthalene	2640	2130	81	55 - 120	
2-Methylphenol	2640	2160	82	51 - 120	
4-Nitrophenol	2640	2500	95	41 - 120	
N-Nitrosodi-n-propylamine	2640	2180	83	51 - 120	
Pentachlorophenol	2640	2120	80	30 - 120	
Phenol	2640	2270	86	54 - 120	
Pyrene	2640	2480	94	50 - 120	
1,2,4-Trichlorobenzene	2640	1880	71	50 - 120	
2,4,6-Trichlorophenol	2640	2330	88	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	81	50 - 120
2-Fluorophenol	81	53 - 120
Nitrobenzene-d5	80	50 - 120
Phenol-d5	83	52 - 120
Terphenyl-d14	91	55 - 120
2,4,6-Tribromophenol	86	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61272

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-14332-3	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-61272	Lab File ID:	Y9422.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	04/08/2011 2301			Final Weight/Volume:	10000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14332-3	Analysis Batch:	280-61698	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-61272	Lab File ID:	Y9423.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	32.9 g
Analysis Date:	04/08/2011 2321			Final Weight/Volume:	10000 uL
Prep Date:	04/07/2011 2305			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	64	70	52 - 120	7	30	J D	J D
Anthracene	0	71	57 - 120	NC	30	U D	J D
Carbazole	NC	NC	54 - 120	NC	30	U D	U D
4-Chloro-3-methylphenol	NC	NC	57 - 120	NC	30	U D	U D
2-Chlorophenol	0	0	53 - 120	NC	30	U D	U D
1,4-Dichlorobenzene	55	53	46 - 120	7	30	J D	J D
2,4-Dinitrotoluene	NC	NC	53 - 120	NC	30	U D	U D
2-Methylnaphthalene	0	0	55 - 120	NC	30	U D	U D
2-Methylphenol	-137	-132	51 - 120	2	30	J D	J D
4-Nitrophenol	NC	NC	41 - 120	NC	30	U D	U D
N-Nitrosodi-n-propylamine	NC	NC	51 - 120	NC	30	U D	U D
Pentachlorophenol	NC	NC	30 - 120	NC	30	U D	U D
Phenol	92	86	54 - 120	9	30	J D	J D
Pyrene	65	77	50 - 120	15	38	J D	J D
1,2,4-Trichlorobenzene	NC	NC	50 - 120	NC	30	U D	U D
2,4,6-Trichlorophenol	0	0	50 - 120	NC	30	U D	U D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2-Fluorobiphenyl	0	D	0	D	50 - 120
2-Fluorophenol	0	D	0	D	53 - 120
Nitrobenzene-d5	0	D	0	D	50 - 120
Phenol-d5	0	D	0	D	52 - 120
Terphenyl-d14	65	D	73	D	55 - 120
2,4,6-Tribromophenol	0	D	0	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

TCLP SPLPW Leachate Blank - Batch: 280-61482

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LB2 280-61289/1-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61482	Lab File ID:	G6_1988.D
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 1629	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	04/08/2011 1924			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	Result	Qual	MDL	RL
Pyridine	0.0056	U	0.0056	0.10
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
2-Methylphenol	0.0049	U	0.0049	0.050
3-Methylphenol & 4-Methylphenol	0.00152	J	0.0012	0.050
Nitrobenzene	0.0040	U	0.0040	0.050
Pentachlorophenol	0.0050	U	0.0050	0.25
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.050
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	86	49 - 120
2-Fluorophenol	86	50 - 120
Nitrobenzene-d5	98	51 - 120
Phenol-d5	88	47 - 120
Terphenyl-d14	105	56 - 120
2,4,6-Tribromophenol	101	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample - Batch: 280-61482

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LCS 280-61289/2-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61482	Lab File ID:	G6_1989.D
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 1647	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	04/08/2011 1924			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pyridine	0.250	0.0799	32	10 - 121	J
1,4-Dichlorobenzene	0.250	0.187	75	36 - 120	
2,4-Dinitrotoluene	0.100	0.0701	70	36 - 120	
Hexachlorobenzene	0.100	0.0921	92	52 - 120	
Hexachlorobutadiene	0.250	0.188	75	35 - 120	
Hexachloroethane	0.250	0.187	75	35 - 120	
2-Methylphenol	0.250	0.230	92	45 - 120	
3-Methylphenol & 4-Methylphenol	0.500	0.441	88	44 - 120	
Nitrobenzene	0.250	0.226	91	50 - 120	
Pentachlorophenol	0.500	0.475	95	39 - 120	
2,4,5-Trichlorophenol	0.250	0.217	87	46 - 120	
2,4,6-Trichlorophenol	0.250	0.223	89	43 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	83	49 - 120
2-Fluorophenol	82	50 - 120
Nitrobenzene-d5	94	51 - 120
Phenol-d5	84	47 - 120
Terphenyl-d14	102	56 - 120
2,4,6-Tribromophenol	98	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61482

Method: 8270C
Preparation: 3510C
TCLP

MS Lab Sample ID:	280-14332-1	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61482	Lab File ID:	G6_2006.D
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 2207			Final Weight/Volume:	1000 uL
Prep Date:	04/08/2011 1924			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

MSD Lab Sample ID:	280-14332-1	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61482	Lab File ID:	G6_2007.D
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	205 mL
Analysis Date:	04/11/2011 2226			Final Weight/Volume:	1000 uL
Prep Date:	04/08/2011 1924			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Pyridine	34	45	10 - 121	26	30	J	
1,4-Dichlorobenzene	57	61	36 - 120	5	30		
2,4-Dinitrotoluene	62	62	36 - 120	2	30		
Hexachlorobenzene	85	86	52 - 120	0	30		
Hexachlorobutadiene	46	53	35 - 120	11	30		
Hexachloroethane	47	51	35 - 120	7	30		
2-Methylphenol	81	82	45 - 120	2	30		
3-Methylphenol & 4-Methylphenol	78	78	44 - 120	2	30		
Nitrobenzene	81	81	50 - 120	2	30		
Pentachlorophenol	30	42	39 - 120	29	30	J T	J
2,4,5-Trichlorophenol	78	79	46 - 120	2	30		
2,4,6-Trichlorophenol	82	80	43 - 120	4	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	70	72	49 - 120
2-Fluorophenol	73	73	50 - 120
Nitrobenzene-d5	82	83	51 - 120
Phenol-d5	76	77	47 - 120
Terphenyl-d14	92	96	56 - 120
2,4,6-Tribromophenol	88	88	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

TCLP SPLPE Leachate Blank - Batch: 280-61502

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LB 280-61290/1-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61502	Lab File ID:	G6_1982.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	204 mL
Analysis Date:	04/11/2011 1436	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
Pyridine	0.0055	U	0.0055	0.098
1,4-Dichlorobenzene	0.0016	U	0.0016	0.020
2,4-Dinitrotoluene	0.0081	U	0.0081	0.049
Hexachlorobenzene	0.0032	U	0.0032	0.049
Hexachlorobutadiene	0.016	U	0.016	0.049
Hexachloroethane	0.010	U	0.010	0.049
2-Methylphenol	0.0048	U	0.0048	0.049
3-Methylphenol & 4-Methylphenol	0.00160	J	0.0012	0.049
Nitrobenzene	0.0040	U	0.0040	0.049
Pentachlorophenol	0.0049	U	0.0049	0.25
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.049
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	67	49 - 120
2-Fluorophenol	67	50 - 120
Nitrobenzene-d5	75	51 - 120
Phenol-d5	69	47 - 120
Terphenyl-d14	92	56 - 120
2,4,6-Tribromophenol	80	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample - Batch: 280-61502

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LCS 280-61290/2-B	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61502	Lab File ID:	G6_1983.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	208 mL
Analysis Date:	04/11/2011 1454	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
Pyridine	0.240	0.129	54	10 - 121	
1,4-Dichlorobenzene	0.240	0.180	75	36 - 120	
2,4-Dinitrotoluene	0.0962	0.0600	62	36 - 120	
Hexachlorobenzene	0.0962	0.0795	83	52 - 120	
Hexachlorobutadiene	0.240	0.182	76	35 - 120	
Hexachloroethane	0.240	0.181	75	35 - 120	
2-Methylphenol	0.240	0.202	84	45 - 120	
3-Methylphenol & 4-Methylphenol	0.481	0.387	80	44 - 120	
Nitrobenzene	0.240	0.200	83	50 - 120	
Pentachlorophenol	0.481	0.410	85	39 - 120	
2,4,5-Trichlorophenol	0.240	0.190	79	46 - 120	
2,4,6-Trichlorophenol	0.240	0.195	81	43 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	76	49 - 120
2-Fluorophenol	74	50 - 120
Nitrobenzene-d5	83	51 - 120
Phenol-d5	75	47 - 120
Terphenyl-d14	89	56 - 120
2,4,6-Tribromophenol	86	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61502

Method: 8270C
Preparation: 3510C
TCLP

MS Lab Sample ID:	280-14332-3	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61502	Lab File ID:	G6_1997.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	206 mL
Analysis Date:	04/11/2011 1918			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:	280-14332-3	Analysis Batch:	280-61778	Instrument ID:	MSS_G6
Client Matrix:	Solid	Prep Batch:	280-61502	Lab File ID:	G6_1998.D
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	200 mL
Analysis Date:	04/11/2011 1937			Final Weight/Volume:	1000 uL
Prep Date:	04/09/2011 1115			Injection Volume:	0.5 uL
Leach Date:	04/07/2011 2305				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Pyridine	47	45	10 - 121	1	30		
1,4-Dichlorobenzene	50	51	36 - 120	5	30		
2,4-Dinitrotoluene	52	50	36 - 120	0	30		
Hexachlorobenzene	80	77	52 - 120	1	30		
Hexachlorobutadiene	51	53	35 - 120	7	30		
Hexachloroethane	45	46	35 - 120	4	30		
2-Methylphenol	58	61	45 - 120	8	30		
3-Methylphenol & 4-Methylphenol	57	59	44 - 120	5	30		
Nitrobenzene	59	60	50 - 120	5	30		
Pentachlorophenol	0	24	39 - 120	NC	30	U T	J T
2,4,5-Trichlorophenol	62	61	46 - 120	1	30		
2,4,6-Trichlorophenol	60	60	43 - 120	4	30		

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	58		59	49 - 120
2-Fluorophenol	49	*	50	50 - 120
Nitrobenzene-d5	59		60	51 - 120
Phenol-d5	53		54	47 - 120
Terphenyl-d14	97		94	56 - 120
2,4,6-Tribromophenol	71		76	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61282

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-61282/1-A	Analysis Batch:	280-61812	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-61282	Lab File ID:	061F6101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.8 g
Analysis Date:	04/09/2011 1517	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/07/2011 2345			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.4
Aroclor 1221	7.6	U	7.6	16
Aroclor 1232	1.9	U	1.9	9.4
Aroclor 1242	4.4	U	4.4	9.4
Aroclor 1248	4.4	U	4.4	9.4
Aroclor 1254	2.5	U	2.5	9.4
Aroclor 1260	2.5	U	2.5	9.4

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	90	59 - 130
Tetrachloro-m-xylene	89	53 - 128

Lab Control Sample - Batch: 280-61282

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-61282/2-A	Analysis Batch:	280-61812	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-61282	Lab File ID:	062F6201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	04/09/2011 1538	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/07/2011 2345			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	62.3	58.5	94	54 - 132	
Aroclor 1260	62.3	60.6	97	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	90	59 - 130
Tetrachloro-m-xylene	87	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-61282

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-14332-2	Analysis Batch:	280-61814	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-61282	Lab File ID:	005F0301.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	04/11/2011 1415			Final Weight/Volume:	5000 uL
Prep Date:	04/07/2011 2345			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14332-2	Analysis Batch:	280-61814	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-61282	Lab File ID:	006F0401.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	32.9 g
Analysis Date:	04/11/2011 1437			Final Weight/Volume:	5000 uL
Prep Date:	04/07/2011 2345			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	1218	952	54 - 132	29	26	D	D
Aroclor 1260	193	159	62 - 129	24	26	D	D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Decachlorobiphenyl	96	D	84	D	59 - 130
Tetrachloro-m-xylene	110	D	100	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-61310/1-A	Analysis Batch:	280-61747	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/11/2011 1134	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	0.454	B	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
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

Method Blank - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-61310/1-A	Analysis Batch:	280-61972	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/13/2011 0626	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2011 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silicon	5.7	U	5.7	10.0

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-61310/2-A	Analysis Batch:	280-61747	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/11/2011 1136	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	185.9	93	82 - 116	
Antimony	50.0	48.74	97	82 - 110	
Arsenic	100	96.07	96	85 - 110	
Barium	200	196.8	98	87 - 112	
Beryllium	5.00	4.73	95	84 - 114	
Boron	100	92.61	93	81 - 110	
Cadmium	10.0	10.18	102	87 - 110	
Calcium	5000	4787	96	82 - 114	
Chromium	20.0	19.75	99	84 - 114	
Cobalt	50.0	48.16	96	87 - 110	
Copper	25.0	24.08	96	88 - 110	
Iron	100	97.57	98	87 - 120	
Lead	50.0	48.44	97	86 - 110	
Magnesium	5000	4655	93	90 - 110	
Manganese	50.0	47.78	96	88 - 110	
Molybdenum	100	99.40	99	86 - 110	
Nickel	50.0	48.12	96	87 - 110	
Potassium	5000	4950	99	89 - 110	
Selenium	200	192.9	96	83 - 110	
Silver	5.00	5.09	102	87 - 114	
Sodium	5000	5060	101	90 - 112	
Vanadium	50.0	48.49	97	88 - 110	
Zinc	50.0	46.57	93	76 - 114	

Lab Control Sample - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-61310/2-A	Analysis Batch:	280-61972	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/13/2011 0628	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
Silicon	1000	153.1	15	10 - 70	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61747	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	04/11/2011 1147	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	84.1		344	422.0	98	50 - 200	
Antimony	8.9		86.0	93.77	99	20 - 200	
Arsenic	70.2		172	248.9	104	76 - 111	
Barium	1.9		344	348.0	101	52 - 159	
Beryllium	0.054	U	8.60	8.23	96	72 - 105	
Boron	4.1		172	154.4	87	75 - 107	
Cadmium	1.6		17.2	20.25	109	40 - 130	
Calcium	149		8600	8403	96	43 - 165	
Chromium	0.51		34.4	33.82	97	70 - 200	
Cobalt	0.16	U	86.0	80.17	93	72 - 106	
Copper	0.68	B	43.0	43.71	100	37 - 187	
Iron	203		172	373.1	99	70 - 200	
Lead	6.3		86.0	98.84	108	70 - 200	
Magnesium	62.2		8600	7693	89	64 - 145	
Manganese	3.6		86.0	89.08	99	40 - 200	
Molybdenum	0.49	B	172	166.7	97	75 - 103	
Nickel	0.58	B	86.0	80.64	93	61 - 126	
Potassium	537		8600	9799	108	56 - 172	
Selenium	1.4	U	344	348.8	101	76 - 104	
Silver	0.26	U	8.60	9.77	114	75 - 141	
Sodium	407000		8600	423300	187	78 - 111	4
Vanadium	0.45	B	86.0	86.78	100	50 - 169	
Zinc	4.1		86.0	91.14	101	70 - 200	

Matrix Spike - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61972	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	04/13/2011 0638	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
Silicon	114	1720	508.1	23	20 - 200	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61747	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A1041111.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	04/11/2011 1144	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	84.1		68.87	20	40	
Antimony	8.9		9.59	7	40	
Arsenic	70.2		73.59	5	30	
Barium	1.9		1.92	4	30	
Beryllium	0.054	U	0.060	NC	30	U
Boron	4.1		4.03	2	30	
Cadmium	1.6		1.61	2	30	
Calcium	149		162.7	9	30	
Chromium	0.51		0.536	4	40	
Cobalt	0.16	U	0.18	NC	30	U
Copper	0.68	B	0.718	5	30	B
Iron	203		200.4	1	40	
Lead	6.3		37.89	143	40	M
Magnesium	62.2		63.12	2	30	
Manganese	3.6		3.76	4	40	
Molybdenum	0.49	B	0.47	NC	30	U
Nickel	0.58	B	0.606	5	30	B
Potassium	537		616.3	14	40	
Selenium	1.4	U	1.6	NC	30	U
Silver	0.26	U	0.29	NC	30	U
Sodium	407000		414900	2	30	
Vanadium	0.45	B	0.491	10	30	B
Zinc	4.1		4.03	1	40	

Duplicate - Batch: 280-61310

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61972	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61310	Lab File ID:	25A6041211.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	04/13/2011 0636	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
Silicon	114	116.2	2	40	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

TCLP SPLPW Leachate Blank - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB2 280-61289/1-C	Analysis Batch:	280-61790	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	25A6041111.asc
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0711	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	0.0244	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Selenium	0.024	U	0.024	0.10
Silver	0.00880	B	0.0040	0.50

TCLP SPLPW Leachate Blank - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB2 280-61289/1-C	Analysis Batch:	280-61966	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 1542	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
Lead	0.013	U	0.013	0.50

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-61289/2-C	Analysis Batch:	280-61790	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	25A6041111.asc
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0713	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	3.55	89	80 - 120	
Barium	12.0	13.10	109	80 - 120	
Cadmium	1.10	1.06	97	80 - 120	
Chromium	5.20	5.28	101	80 - 120	
Selenium	3.00	2.93	98	80 - 120	
Silver	1.05	1.10	104	80 - 120	

Lab Control Sample - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-61289/2-C	Analysis Batch:	280-61966	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 1545	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
Lead	5.50	5.63	102	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61790	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	25A6041111.asc
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0725	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	1.9		4.00	5.85	99	80 - 120	
Barium	0.048	B	12.0	13.86	115	80 - 120	
Cadmium	0.040	B	1.10	1.23	108	80 - 120	
Chromium	0.0088	B	5.20	5.38	103	80 - 120	
Selenium	0.024	U	3.00	3.22	107	80 - 120	
Silver	0.0053	B	1.05	1.29	122	80 - 120	N

Matrix Spike - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61966	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 1556	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
Lead	0.036	B	5.50	5.36	97	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61790	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	25A6041111.asc
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0722	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	1.9		2.03	7	20	
Barium	0.048	B	0.0495	4	20	B
Cadmium	0.040	B	0.0426	6	20	B
Chromium	0.0088	B	0.0111	23	20	B M
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0053	B	0.0040	NC	20	U

Duplicate - Batch: 280-61552

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61966	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61552	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 1553	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
Lead	0.036	B	0.0338	7	20	B

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

TCLP SPLPE Leachate Blank - Batch: 280-61554

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-61290/1-C	Analysis Batch:	280-61791	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0738	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	0.0200	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	0.00590	B	0.0040	0.50

Lab Control Sample - Batch: 280-61554

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-61290/2-C	Analysis Batch:	280-61791	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0740	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	4.06	102	80 - 120	
Barium	12.0	14.22	118	80 - 120	
Cadmium	1.10	1.20	109	80 - 120	
Chromium	5.20	5.76	111	80 - 120	
Lead	5.50	5.29	96	80 - 120	
Selenium	3.00	3.34	111	80 - 120	
Silver	1.05	1.23	117	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike - Batch: 280-61554

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-3	Analysis Batch:	280-61791	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0753	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	3.77	94	80 - 120	
Barium	0.085	B	12.0	13.16	109	80 - 120	
Cadmium	0.0020	U	1.10	1.11	101	80 - 120	
Chromium	0.0030	B	5.20	5.33	102	80 - 120	
Lead	0.013	U	5.50	4.92	89	80 - 120	
Selenium	0.024	U	3.00	3.08	103	80 - 120	
Silver	0.0063	B	1.05	1.13	107	80 - 120	

Duplicate - Batch: 280-61554

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-14332-3	Analysis Batch:	280-61791	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61554	Lab File ID:	25A7041111.asc
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	10 mL
Analysis Date:	04/12/2011 0750	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	0.085	B	0.0843	1	20	B
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	0.0030	B	0.0030	NC	20	U
Lead	0.013	U	0.013	NC	20	U
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0063	B	0.00510	21	20	B M

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

TCLP SPLPW Leachate Blank - Batch: 280-61585

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB2 280-61289/1-D	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61585	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1621	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: 280-61585

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-61289/2-D	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61585	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1623	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	0.00498	100	90 - 116	

Matrix Spike - Batch: 280-61585

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61585	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1630	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	0.00347	69	90 - 116	N

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61585

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61585	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61289	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1628	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: 280-14332-1
Sdg Number: JP0153

TCLP SPLPE Leachate Blank - Batch: 280-61587

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-61290/1-D	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1632	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: 280-61587

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-61290/2-D	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1635	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	0.00471	94	90 - 116	

Matrix Spike - Batch: 280-61587

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14332-3	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1649	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	0.00406	81	90 - 116	N

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61587

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-14332-3	Analysis Batch:	280-61752	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61587	Lab File ID:	110411AA.txt
Dilution:	1.0	Leach Batch:	280-61290	Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1642	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: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61666

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-61666/1-A	Analysis Batch:	280-61753	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/11/2011 1442	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-61666

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-61666/2-A	Analysis Batch:	280-61753	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/11/2011 1445	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.419	101	87 - 111	

Matrix Spike - Batch: 280-61666

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14332-2	Analysis Batch:	280-61753	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/11/2011 1454	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.016	B	0.421	0.350	79	87 - 111	N

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61666

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14332-2	Analysis Batch:	280-61753	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61666	Lab File ID:	110411AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/11/2011 1452	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.016	B	0.00784	71	20	B M

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	MB 280-61349/4-A	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/09/2011 1259	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Cyanide	0.10	U	0.10	0.50

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

High Level Control Sample - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	HLCS 280-61349/1-A	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/09/2011 1255	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	20.0	19.68	98	90 - 110	

Low Level Control Sample - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LLCS 280-61349/2-A	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/09/2011 1256	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	5.00	4.94	99	90 - 110	

Lab Control Sample - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LCS 280-61349/3-A	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/09/2011 1258	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	5.00	4.92	98	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Matrix Spike - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	04/09/2011 1302	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	0.19	U	9.20	7.78	85	90 - 110	N

Duplicate - Batch: 280-61349

Method: 9012A
Preparation: 9012A

Lab Sample ID:	280-14332-2	Analysis Batch:	280-61529	Instrument ID:	WC_Alp 1
Client Matrix:	Solid	Prep Batch:	280-61349	Lab File ID:	C:\FLOW_4\CN040911
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	04/09/2011 1313	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/08/2011 0909				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Total Cyanide	0.39	B	0.393	0.3	10	B

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Method Blank - Batch: 280-61386

Method: 9034
Preparation: 9030B

Lab Sample ID:	MB 280-61386/7-A	Analysis Batch:	280-61449	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	280-61386	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.03 g
Analysis Date:	04/08/2011 1442	Units:	mg/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/08/2011 1050				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Sulfide	2.4	U	2.4	4.9

Lab Control Sample - Batch: 280-61386

Method: 9034
Preparation: 9030B

Lab Sample ID:	LCS 280-61386/6-A	Analysis Batch:	280-61449	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	280-61386	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.25 g
Analysis Date:	04/08/2011 1442	Units:	mg/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/08/2011 1050				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfide	102	81.19	80	47 - 100	

Matrix Spike - Batch: 280-61386

Method: 9034
Preparation: 9030B

Lab Sample ID:	280-14332-2	Analysis Batch:	280-61449	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	280-61386	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.61 g
Analysis Date:	04/08/2011 1442	Units:	mg/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/08/2011 1050				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Sulfide	106	100	126.2	20	57 - 136	N

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61386

Method: 9034
Preparation: 9030B

Lab Sample ID:	280-14332-2	Analysis Batch:	280-61449	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	280-61386	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	49.98 g
Analysis Date:	04/08/2011 1442	Units:	mg/Kg	Final Weight/Volume:	250 mL
Prep Date:	04/08/2011 1050				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfide	106	103.6	2	35	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-61510

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-61510/4	Analysis Batch:	280-61510	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/08/2011 1055	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-61510/5	Analysis Batch:	280-61510	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/08/2011 1056	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

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

Duplicate - Batch: 280-61510

Method: 9045C
Preparation: N/A

Lab Sample ID:	280-14332-3	Analysis Batch:	280-61510	Instrument ID:	WC_pH Probe
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-61323	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/08/2011 1102	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/08/2011 0826				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	7.69	7.650	0.5	5	

Client: Washington Closure Hanford

Job Number: 280-14332-1
Sdg Number: JP0153

Duplicate - Batch: 280-61337

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-14332-1	Analysis Batch:	280-61337	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 0840	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	46.2	49.3	7	20	

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-130	Page 1 of 1
Collector: Blankingship / Lucas	Company Contact: Joan Kessner; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: ~~9L~~ 9B; Data Turnaround: ~~21~~ 7 Days
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 118-D-3 (100D-AN-07-052)	SAF No.: RC-073	
Ice Chest No.: WCH-08-070	Field Logbook No.: EL-1657; COA: R118D32600	Method of Shipment: Fed Ex	
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 <LDT 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	1	1	1	1
Volume	~~60mL~~ 250mL	~~125mL~~ 250mL	~~60mL~~ 250mL	~~60mL~~ 250mL	~~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~~; pH - 9045 JRD 3/28/11	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 JRD 3/28/11	RCF GEA Shipping Screen

Sample No.	Matrix *	Sample Date	Sample Time										
J1H074	OTHER	4/1/11	1055	✓	✓	✓	✓	✓	✓	✓			

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Lucas Kevin Lucas	4-1-11 1330	Received By/Stored In: JRD DeBruin JRD DeBruin	1330 4/1/11
Relinquished By/Removed From: JRD DeBruin JRD DeBruin	1700 4/4/11	Received By/Stored In: J. E. Bahl	1700 4-4-11
Relinquished By/Removed From: J. E. Bahl WCH	1245 4-6-11	Received By/Stored In: FED EX	
Relinquished By/Removed From		Received By/Stored In: [signature]	4/7/11 0930
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

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 JRE DATE 4-6-11

JP0153

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

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-122	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: 118-D-3 (100D-AN-07-027)		SAF No.: RC-073
Ice Chest No.: JRD 3/28/11 At WCH-08-070	Field Logbook No.: EL-1657	COA: R118D32600	Method of Shipment: FedEx
Shipped To: JRD 3/28/11 TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7946 2016 3763

POSSIBLE SAMPLE HAZARDS/REMARKS

Radioactive LDOT Limits JEO 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~~ P JRD 4/1/11	aG	aG	aG	G/P	G/P	G/P
No. of Container(s)	1	~~1~~ 0	~~1~~ 0	1 ~~0~~ JRD 4/1/11	1 0	1 ~~0~~ JRD 4/1/11	~~1~~ 0 JRD 4/1/11	1	1	1
Volume	~~60mL~~ 500mL P	125mL	60mL	JRD 4/1/11 ~~60mL~~ 500mL	60mL	~~60mL~~ 1000mL JRD 4/1/11	125mL	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~~; pH - 9045 JRD 3/28/11	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 Stripping Screen

Sample No.	Matrix *	Sample Date	Sample Time										
J1H066	OTHER	4/1/11	1005	✓	✓	✓	✓	✓	✓	✓			

JRD

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kenneth Lucas	4-1-11 1330	JRDeBruine JRDeBruine	4/1/11 1330
JRDeBruine JRDeBruine	4/4/11 1700	J. E. Bahl	4-4-11 1700
~~Removed From~~ J. E. Bahl WH	4-6-11 1245	FED EX	
		Barry Dirkl	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 FRE DATE 4-6-11

JP0153

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

WCH-EE-011

5.6°C
3.4 & 4074
TP

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-123	Page 1 of 1

Collector: Blankingship / Lucas	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: ~~9L~~ ~~JED 4/1/11~~ 9B	Data Turnaround: ~~21~~ 7 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 118-D-3 (100D-AN-07-030)		SAF No.: RC-073
Ice Chest No.: WCH-08-070	Field Logbook No.: EL-1657	COA: R118D32600	Method of Shipment: Fed Ex
Shipped To: TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7946 2016 3763

POSSIBLE SAMPLE HAZARDS/REMARKS
Radioactive < DOT Limits
JED 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	1	1	1	1
Volume	~~60mL~~ 250mL	~~125mL~~ 250mL	~~60mL~~ 250mL	~~60mL~~ 250mL	~~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 352.1, 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

Sample No.	Matrix *	Sample Date	Sample Time										
J1H067	OTHER	4/1/11	0900	✓	✓	✓	✓	✓	✓	✓			

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas	4-1-11 1330	J.K. DeBuigne	1330 4/1/11
J.K. DeBuigne	4/4/11 1700	J. E. Bahl	1700 4-4-11
J. E. Bahl WCH	1245 4-6-11	FED EX	
			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}
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REVIEWED BY JRE
DATE 4-6-11
JP0153

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 - 60 to TC - Solid

Analytical Due:

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

Sample Check-in List

Date/Time Received: 4/7/11 0930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP0153 NA[ ] SAF #: RC-073 NA [ ]

Job Number: 14332 Chain of Custody # RC-073-122, 123, 130

Shipping Container ID: AFS-04-121, WCH-08-070 Air Bill # 7946 2016 3763, 7946 2016 4050

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: 3
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 J1H066 received in plastic containers

Sample Custodian: [signature] Date: 4/7/11

Client Sample ID	Analysis Requested	Condition	Comments/Action
J1H066	Various	Improper Container of Organic Analyses	Will proceed unless instructed otherwise.

Client Informed on 4/7/11 by MJ Person Contacted Joan Kessner

[ ] 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

J11151102250225

Ship Date: 06APR11
ActWgt: 69.0 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

1 of 2

TRK# 7946 2016 3763
0201
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

J111511022502 25

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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