0095198

SAF-RC-107
100-H Remaining Sites Burial Grounds – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 3/24/11
NITIAL/DATE

COMMENTS:

SDG JP0106 SAF-RC-107

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 126-H-2 Verification Sampling

RECEIVED
APR 05 2011
EDMC

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 85 ***Pages***

Report No.: 46011

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.
JP0106	RC-107	J1DX59	J1C080593-1	MFDJ61AA	9MFDJ610	1068010
		J1DX60	J1C080593-2	MFDKA1AA	9MFDKA10	1068010
		J1DX61	J1C080593-3	MFDKD1AA	9MFDKD10	1068010
		J1DX62	J1C080593-4	MFDKE1AA	9MFDKE10	1068010
		J1DX63	J1C080593-5	MFDKH1AA	9MFDKH10	1068010
		J1DX68	J1C080593-6	MFDKL1AA	9MFDKL10	1068010
		J1DX86	J1C090444-1	MFD511AE	9MFD5110	1068213
		J1DX86	J1C090444-1	MFD511AC	9MFD5110	1068214
		J1DX86	J1C090444-1	MFD511AD	9MFD5110	1068216
		J1DX86	J1C090444-1	MFD512AA	9MFD5120	1075335
		J1DX87	J1C090444-2	MFD571AE	9MFD5710	1068213
		J1DX87	J1C090444-2	MFD571AC	9MFD5710	1068214
		J1DX87	J1C090444-2	MFD571AD	9MFD5710	1068216
		J1DX87	J1C090444-2	MFD572AA	9MFD5720	1075335
		J1DX88	J1C090444-3	MFD6C1AE	9MFD6C10	1068213
		J1DX88	J1C090444-3	MFD6C1AC	9MFD6C10	1068214
		J1DX88	J1C090444-3	MFD6C1AD	9MFD6C10	1068216
		J1DX88	J1C090444-3	MFD6C2AA	9MFD6C20	1075335
		J1DX89	J1C090444-4	MFD6E1AE	9MFD6E10	1068213
		J1DX89	J1C090444-4	MFD6E1AC	9MFD6E10	1068214
		J1DX89	J1C090444-4	MFD6E1AD	9MFD6E10	1068216
		J1DX89	J1C090444-4	MFD6E2AA	9MFD6E20	1075335
		J1DX90	J1C090444-5	MFD6G1AE	9MFD6G10	1068213
		J1DX90	J1C090444-5	MFD6G1AC	9MFD6G10	1068214
		J1DX90	J1C090444-5	MFD6G1AD	9MFD6G10	1068216
		J1DX90	J1C090444-5	MFD6G2AA	9MFD6G20	1075335

Report No.: 46011

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.
JP0106	RC-107	J1DX95	J1C090444-6	MFD641AE	9MFD6410	1068213
		J1DX95	J1C090444-6	MFD641AC	9MFD6410	1068214
		J1DX95	J1C090444-6	MFD641AD	9MFD6410	1068216
		J1DX95	J1C090444-6	MFD642AA	9MFD6420	1075335

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

March 24, 2011

Attention: Joan Kessner

SAF Number	:	RC-107
Date SDG Closed	:	March 8, 2011
Number of Samples	:	Twelve (12)
Sample Type	:	Other
SDG Number	:	JP0106
Data Deliverable	:	7– Day / Summary

CASE NARRATIVE

I. Introduction

On March 8, 2011 five other 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
J1DX59	MFDJG	OTHER	3/8/11
J1DX60	MFDKA	OTHER	3/8/11
J1DX61	MFDKD	OTHER	3/8/11
J1DX62	MFDKE	OTHER	3/8/11
J1DX63	MFDKH	OTHER	3/8/11
J1DX68	MFDKL	OTHER	3/8/11
J1DX86	MFDS1	OTHER	3/8/11
J1DX87	MFDS7	OTHER	3/8/11
J1DX88	MFD6C	OTHER	3/8/11
J1DX89	MFD6E	OTHER	3/8/11
J1DX90	MFD6G	OTHER	3/8/11
J1DX95	MFD64	OTHER	3/8/11

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.
The client was contacted on March 10, 2011 about the sample matrix listed as soil on some of the COC request forms. TestAmerica was instructed to treat all of the samples under SDG JP0106 as other matrix.

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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-002
Gas Proportional Counting
Strontium-90 by method RL-GPC-003
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Liquid Scintillation Counting
Technetium-99 by method RL-LSC-013
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

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

Alpha Spectroscopy

Plutonium-238, -239/240 by method RL-ALP-002:
The LCS, batch blank, samples and sample duplicate (J1DX88) results are within contractual requirements.

Gas Proportional Counting

Strontium-90 by method RL-GPC-003:
The batch was reanalyzed due to an incorrect spike used in the original analysis. The reanalysis data is within the acceptance limits. Except as noted; the LCS, batch blank, samples and sample duplicate (J1DX86) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec by method RL-GAM-001 :
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 (J1DX87) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by method RL-LSC-013:
The LCS, batch blank, samples, sample duplicate (J1DX89) and sample matrix spike (J1DX90) results are within contractual requirements.

Washington Closure Hanford
March 24, 2011

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The sample and sample duplicate agreement is outside the acceptance limits. This may be attributed to inhomogeniety of the matrix. Except as noted; the LCS, batch blank, samples, sample duplicate (J1DX59) and sample matrix spike (J1DX59) 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: 24-Mar-11

TestAmerica TARL

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

Report No. : 46011

SDG No: JP0106

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1068214 PUISO_PLATE_AEA									
J1DX86									
	MFD511AC	PU-238	-4.76E-03 +- 9.5E-02	U	pCi/g	54%	1.99E-01	1.00E+00	
		PU239/40	-4.75E-03 +- 9.5E-02	U	pCi/g	54%	1.99E-01	1.00E+00	
J1DX87									
	MFD571AC	PU-238	-2.71E-03 +- 1.1E-01	U	pCi/g	47%	2.03E-01	1.00E+00	
		PU239/40	-2.71E-03 +- 1.1E-01	U	pCi/g	47%	2.03E-01	1.00E+00	
J1DX88									
	MFD6C1AC	PU-238	4.71E-02 +- 1.0E-01	U	pCi/g	53%	1.86E-01	1.00E+00	
		PU239/40	-2.48E-03 +- 9.9E-02	U	pCi/g	53%	1.86E-01	1.00E+00	
J1DX88 DUP									
	MFD6C1AF	PU-238	3.42E-02 +- 8.1E-02	U	pCi/g	65%	1.81E-01	1.00E+00	31.9
		PU239/40	3.62E-02 +- 8.1E-02	U	pCi/g	65%	1.68E-01	1.00E+00	229.5
J1DX89									
	MFD6E1AC	PU-238	-2.41E-03 +- 9.6E-02	U	pCi/g	57%	1.80E-01	1.00E+00	
		PU239/40	0.00E+00 +- 9.6E-02	U	pCi/g	57%	1.80E-01	1.00E+00	
J1DX90									
	MFD6G1AC	PU-238	0.00E+00 +- 9.9E-02	U	pCi/g	50%	1.86E-01	1.00E+00	
		PU239/40	-7.45E-03 +- 9.9E-02	U	pCi/g	50%	2.24E-01	1.00E+00	
J1DX95									
	MFD641AC	PU-238	5.11E-02 +- 1.0E-01	U	pCi/g	52%	1.92E-01	1.00E+00	
		PU239/40	0.00E+00 +- 1.0E-01	U	pCi/g	52%	1.92E-01	1.00E+00	
1068213 GAMMA_GS									
J1DX86									
	MFD511AE	AG-108M	-4.11E-03 +- 2.4E-02	U	pCi/g		4.13E-02		
		AMERICIUM 241	-6.04E-02 +- 1.7E-01	U	pCi/g		2.73E-01		
		BA-133	-1.20E-02 +- 3.4E-02	U	pCi/g		5.76E-02		
		CO-60	1.64E-02 +- 3.9E-02	U	pCi/g		7.56E-02	5.00E-02	
		CS-137	8.29E-01 +- 1.4E-01		pCi/g		4.97E-02	1.00E-01	
		EU-152	-2.07E-02 +- 7.3E-02	U	pCi/g		1.24E-01	1.00E-01	
		EU-154	8.41E-02 +- 1.2E-01	U	pCi/g		2.26E-01	1.00E-01	
		EU-155	4.99E-03 +- 6.2E-02	U	pCi/g		1.09E-01	1.00E-01	
J1DX87									
	MFD571AE	AG-108M	4.72E-03 +- 4.2E-02	U	pCi/g		7.43E-02		
		AMERICIUM 241	-3.04E-02 +- 6.1E-02	U	pCi/g		9.97E-02		
		BA-133	-2.17E-02 +- 7.1E-02	U	pCi/g		9.87E-02		
		CO-60	-1.34E-02 +- 5.9E-02	U	pCi/g		1.05E-01	5.00E-02	
		CS-137	6.76E-02 +- 6.0E-02	U	pCi/g		1.13E-01	1.00E-01	
		EU-152	-5.17E-02 +- 1.4E-01	U	pCi/g		2.32E-01	1.00E-01	

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.

Sample Results Summary

Date: 24-Mar-11

TestAmerica TARL

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

Report No. : 46011

SDG No: JP0106

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1068213 GAMMA_GS									
J1DX87									
	MFD571AE	EU-154	-3.75E-02 +- 1.8E-01	U	pCi/g		3.19E-01	1.00E-01	
		EU-155	1.95E-02 +- 9.6E-02	U	pCi/g		1.66E-01	1.00E-01	
J1DX87 DUP									
	MFD571AF	AG-108M	-5.51E-03 +- 2.3E-02	U	pCi/g		4.06E-02		-2589.4
		AMERICIUM 241	1.13E-01 +- 1.5E-01	U	pCi/g		2.69E-01		347.1
		BA-133	-2.60E-03 +- 3.0E-02	U	pCi/g		5.12E-02		-157.2
		CO-60	2.44E-02 +- 3.7E-02	U	pCi/g		7.39E-02	5.00E-02	687.8
		CS-137	1.05E-01 +- 4.0E-02	U	pCi/g		7.80E-02	1.00E-01	43.6
		EU-152	3.07E-02 +- 6.9E-02	U	pCi/g		1.23E-01	1.00E-01	-783.0
		EU-154	-3.29E-02 +- 1.1E-01	U	pCi/g		1.87E-01	1.00E-01	-13.0
		EU-155	-6.78E-02 +- 6.5E-02	U	pCi/g		1.03E-01	1.00E-01	-361.3
J1DX88									
	MFD6C1AE	AG-108M	1.67E-02 +- 3.8E-02	U	pCi/g		6.92E-02		
		AMERICIUM 241	9.36E-02 +- 1.2E-01	U	pCi/g		2.06E-01		
		BA-133	-2.30E-02 +- 6.0E-02	U	pCi/g		8.63E-02		
		CO-60	-3.99E-03 +- 5.2E-02	U	pCi/g		9.37E-02	5.00E-02	
		CS-137	1.11E-01 +- 8.3E-02		pCi/g		8.15E-02	1.00E-01	
		EU-152	-2.17E-02 +- 1.2E-01	U	pCi/g		2.04E-01	1.00E-01	
		EU-154	1.29E-02 +- 1.6E-01	U	pCi/g		2.84E-01	1.00E-01	
		EU-155	4.45E-02 +- 9.5E-02	U	pCi/g		1.67E-01	1.00E-01	
J1DX89									
	MFD6E1AE	AG-108M	-8.50E-04 +- 4.0E-02	U	pCi/g		6.88E-02		
		AMERICIUM 241	-1.01E-02 +- 5.4E-02	U	pCi/g		9.05E-02		
		BA-133	1.27E-02 +- 6.1E-02	U	pCi/g		8.87E-02		
		CO-60	-2.77E-02 +- 4.9E-02	U	pCi/g		8.35E-02	5.00E-02	
		CS-137	2.30E-02 +- 5.3E-02	U	pCi/g		9.61E-02	1.00E-01	
		EU-152	-3.88E-02 +- 1.3E-01	U	pCi/g		2.15E-01	1.00E-01	
		EU-154	-9.68E-03 +- 1.7E-01	U	pCi/g		3.07E-01	1.00E-01	
		EU-155	-1.94E-02 +- 8.3E-02	U	pCi/g		1.41E-01	1.00E-01	
J1DX90									
	MFD6G1AE	AG-108M	-1.23E-03 +- 2.0E-02	U	pCi/g		3.58E-02		
		AMERICIUM 241	-2.38E-02 +- 1.5E-01	U	pCi/g		2.49E-01		
		BA-133	-2.08E-02 +- 3.5E-02	U	pCi/g		5.04E-02		
		CO-60	-1.81E-03 +- 3.2E-02	U	pCi/g		5.91E-02	5.00E-02	
		CS-137	3.49E-02 +- 3.0E-02	U	pCi/g		5.89E-02	1.00E-01	
		EU-152	-2.49E-02 +- 6.7E-02	U	pCi/g		1.13E-01	1.00E-01	
		EU-154	9.93E-03 +- 1.1E-01	U	pCi/g		2.11E-01	1.00E-01	

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.

Sample Results Summary

TestAmerica TARL

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

Date: 24-Mar-11

Report No. : 46011

SDG No: JP0106

Batch / Client Id / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1068213 GAMMA_GS								
J1DX90								
MFD6G1AE	EU-155	-3.64E-03 +- 6.4E-02	U	pCi/g		1.11E-01	1.00E-01	
J1DX95								
MFD641AE	AG-108M	4.49E-03 +- 3.6E-02	U	pCi/g		6.42E-02		
	AMERICIUM 241	-1.40E-02 +- 1.1E-01	U	pCi/g		1.82E-01		
	BA-133	3.54E-02 +- 5.5E-02	U	pCi/g		8.81E-02		
	CO-60	-2.44E-02 +- 5.3E-02	U	pCi/g		9.02E-02	5.00E-02	
	CS-137	-1.18E-03 +- 4.9E-02	U	pCi/g		8.56E-02	1.00E-01	
	EU-152	-2.50E-02 +- 1.1E-01	U	pCi/g		1.97E-01	1.00E-01	
	EU-154	1.44E-02 +- 1.5E-01	U	pCi/g		2.73E-01	1.00E-01	
	EU-155	-5.38E-03 +- 8.7E-02	U	pCi/g		1.49E-01	1.00E-01	
1075335 SRTOT_SEP_PRECIP_GPC								
J1DX86								
MFD512AA	STRONTIUM	9.22E-02 +- 7.6E-02	U	pCi/g	73%	1.48E-01		
J1DX86 DUP								
MFD511AG	STRONTIUM	1.61E-01 +- 9.6E-02	U	pCi/g	67%	1.65E-01		54.3
J1DX87								
MFD572AA	STRONTIUM	3.44E-02 +- 6.8E-02	U	pCi/g	65%	1.50E-01		
J1DX88								
MFD6C2AA	STRONTIUM	8.84E-02 +- 7.2E-02	U	pCi/g	73%	1.39E-01		
J1DX89								
MFD6E2AA	STRONTIUM	3.53E-02 +- 7.0E-02	U	pCi/g	66%	1.54E-01		
J1DX90								
MFD6G2AA	STRONTIUM	6.80E-02 +- 7.9E-02	U	pCi/g	64%	1.65E-01		
J1DX95								
MFD642AA	STRONTIUM	6.45E-02 +- 8.0E-02	U	pCi/g	65%	1.69E-01		
1068010 7196_CR6								
J1DX59								
MFDJ61AA	HEXCHROME	2.64E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
MFDJ61AD	HEXCHROME	1.71E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	3.50E-01	42.5
J1DX60								
MFDKA1AA	HEXCHROME	4.41E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1DX61								
MFDKD1AA	HEXCHROME	2.47E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1DX62								
MFDKE1AA	HEXCHROME	3.44E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1DX63								
MFDKH1AA	HEXCHROME	4.25E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	

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.

Sample Results Summary

Date: 24-Mar-11

TestAmerica TARL

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

Report No. : 46011

SDG No: JP0106

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1068010	7196_CR6								
	J1DX68								
	MFDKL1AA	HEXCHROME	3.38E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
1068216	TC99_ETVDSK_LSC								
	J1DX86								
	MFD511AD	TC-99	4.56E-01 +- 4.0E-01	U	pCi/g	100%	6.27E-01	1.50E+01	
	J1DX87								
	MFD571AD	TC-99	1.20E+00 +- 4.5E-01		pCi/g	100%	6.54E-01	1.50E+01	
	J1DX88								
	MFD6C1AD	TC-99	1.31E+00 +- 4.6E-01		pCi/g	100%	6.87E-01	1.50E+01	
	J1DX89								
	MFD6E1AD	TC-99	3.78E-01 +- 3.8E-01	U	pCi/g	100%	6.21E-01	1.50E+01	
	J1DX89 DUP								
	MFD6E1AF	TC-99	2.71E-01 +- 3.9E-01	U	pCi/g	100%	6.26E-01	1.50E+01	33.0
	J1DX90								
	MFD6G1AD	TC-99	4.04E-01 +- 3.9E-01	U	pCi/g	100%	6.13E-01	1.50E+01	
	J1DX95								
	MFD641AD	TC-99	5.91E-01 +- 4.0E-01	U	pCi/g	100%	6.31E-01	1.50E+01	

No. of Results: 91

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: 24-Mar-11

Report No. : 46011

SDG No.: JP0106

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
PUISO_PLATE_AEA								
1068214 BLANK QC,								
MFEH11AA	PU-238	-1.74E-03 +- 6.9E-02	U	pCi/g	79%			1.30E-01
	PU239/40	-3.48E-03 +- 7.0E-02	U	pCi/g	79%			1.45E-01
1068214 LCS,								
MFEH11AC	PU239/40	5.16E+00 +- 1.4E+00		pCi/g	77%	74%	-0.3	1.25E-01
GAMMA_GS								
1068213 BLANK QC,								
MFEH01AA	AG-108M	5.05E-03 +- 4.5E-02	U	pCi/g				7.83E-02
	AMERICIUM 241	-2.44E-02 +- 5.3E-02	U	pCi/g				8.77E-02
	BA-133	-9.47E-02 +- 6.9E-02	U	pCi/g				1.06E-01
	CO-60	2.91E-02 +- 6.1E-02	U	pCi/g				1.18E-01
	CS-137	3.98E-02 +- 5.6E-02	U	pCi/g				1.04E-01
	EU-152	2.36E-02 +- 1.3E-01	U	pCi/g				2.33E-01
	EU-154	1.57E-01 +- 1.8E-01	U	pCi/g				3.60E-01
	EU-155	1.19E-01 +- 9.0E-02	U	pCi/g				1.62E-01
1068213 LCS,								
MFEH01AC	CS-137	5.28E-01 +- 2.2E-01		pCi/g		70%	-0.3	2.14E-01
SRTOT_SEP_PRECIP_GPC								
1075335 BLANK QC,								
MFEHQ2AA	STRONTIUM	-3.01E-03 +- 4.9E-02	U	pCi/g	96%			1.17E-01
1075335 LCS,								
MFEHQ2AC	STRONTIUM	9.46E-01 +- 2.7E-01		pCi/g	92%	84%	-0.2	1.18E-01
7196_CR6								
1068010 MATRIX SPIKE, J1DX59								
MFDJ61AC	HEXCHROME	8.59E+00 +- 0.0E+00		mg/kg	N/A	82%	-0.2	1.55E-01
1068010 LCS,								
MFDPR1AC	HEXCHROME	1.60E+01 +- 0.0E+00		mg/kg	N/A	80%	-0.2	1.55E-01
1068010 BLANK QC,								
MFDPR1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
TC99_ETVDSK_LSC								
1068216 BLANK QC,								
MFEH41AA	TC-99	3.93E-01 +- 3.8E-01	U	pCi/g	100%			6.10E-01
1068216 LCS,								
MFEH41AC	TC-99	7.16E+01 +- 5.0E+00		pCi/g	100%	104%	0.0	6.24E-01
1068216 MATRIX SPIKE, J1DX90								
MFD6G1AF	TC-99	2.02E+02 +- 1.4E+01		pCi/g	100%	91%	-0.1	6.01E-01

No. of Results: 20

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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:15:00 AM
Lot-Sample No.:	J1C080593-1	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX59	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			Work Order:	MFDJ61AA		Report DB ID:	9MFDJ610				
HEXCHROME	***2.64E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(17.)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:35:00 AM
Lot-Sample No.:	J1C080593-2	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX60	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDKA1AA			**Report DB ID:** 9MFDKA10					
HEXCHROME	***4.41E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(28.4)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:50:00 AM
Lot-Sample No.:	J1C080593-3	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX61	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDKD1AA			**Report DB ID:** 9MFDKD10					
HEXCHROME	***2.47E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(15.9)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	J1C080593-4	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX62	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDKE1AA			**Report DB ID:** 9MFDKE10					
HEXCHROME	***3.44E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(22.2)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **Comments:**

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: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:55:00 AM
Lot-Sample No.:	**J1C080593-5**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX63**	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDKH1AA			**Report DB ID:** 9MFDKH10					
HEXCHROME	***4.25E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(27.4)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	J1C080593-6	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX68	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDKL1AA			**Report DB ID:** 9MFDKL10					
HEXCHROME	***3.38E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(21.8)*	3/9/11		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:15:00 AM
Lot-Sample No.:	J1C090444-1	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX86	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD511AE			**Report DB ID:** 9MFD5110					
AG-108M	***-4.11E-03***	U	2.4E-02	2.4E-02	4.13E-02	pCi/g		*-0.1*	3/14/11 01:40 a		51.6	GER11$1
								-0.35			g	
AMERICIUM 241	***-6.04E-02***	U	1.7E-01	1.7E-01	2.73E-01	pCi/g		*-0.22*	3/14/11 01:40 a		51.6	GER11$1
								-0.72			g	
BA-133	***-1.20E-02***	U	3.4E-02	3.4E-02	5.76E-02	pCi/g		*-0.21*	3/14/11 01:40 a		51.6	GER11$1
								-0.7			g	
CO-60	***1.64E-02***	U	3.9E-02	3.9E-02	7.56E-02	pCi/g		*0.22*	3/14/11 01:40 a		51.6	GER11$1
							5.00E-02	*0.83*			g	
CS-137	***8.29E-01***		1.4E-01	1.4E-01	4.97E-02	pCi/g		*(16.7)*	3/14/11 01:40 a		51.6	GER11$1
							1.00E-01	*(11.6)*			g	
EU-152	***-2.07E-02***	U	7.3E-02	7.3E-02	1.24E-01	pCi/g		*-0.17*	3/14/11 01:40 a		51.6	GER11$1
							1.00E-01	*-0.56*			g	
EU-154	***8.41E-02***	U	1.2E-01	1.2E-01	2.26E-01	pCi/g		*0.37*	3/14/11 01:40 a		51.6	GER11$1
							1.00E-01	*(1.5)*			g	
EU-155	***4.99E-03***	U	6.2E-02	6.2E-02	1.09E-01	pCi/g		*0.05*	3/14/11 01:40 a		51.6	GER11$1
							1.00E-01	*0.16*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD511AC			**Report DB ID:** 9MFD5110					
PU-238	***-4.76E-03***	U	9.5E-02	9.5E-02	1.99E-01	pCi/g	54%	*-0.02*	3/17/11 05:11 p		1.01	ALP38
						3.50E-02	1.00E+00	*-0.1*			g	
PU239/40	***-4.75E-03***	U	9.5E-02	9.5E-02	1.99E-01	pCi/g	54%	*-0.02*	3/17/11 05:11 p		1.01	ALP38
						3.50E-02	1.00E+00	*-0.1*			g	

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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:15:00 AM
Lot-Sample No.:	J1C090444-1	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX86	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:** MFD511AD			**Report DB ID:** 9MFD5110					
TC-99	***4.56E-01***	U	2.7E-01	4.0E-01	6.27E-01	pCi/g	100%	*0.73*	3/18/11 06:41 p		1.98	LSC6
						3.01E-01	1.50E+01	*(2.3)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:** MFD512AA			**Report DB ID:** 9MFD5120					
STRONTIUM	***9.22E-02***	U	7.2E-02	7.6E-02	1.48E-01	pCi/g	73%	*0.62*	3/23/11 08:00 a		6.0	GPC26B
						6.88E-02		*(2.4)*			g	

No. of Results: 12 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:35:00 AM
Lot-Sample No.:	J1C090444-2	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX87	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD571AE			**Report DB ID:** 9MFD5710					
AG-108M	***4.72E-03***	U	4.2E-02	4.2E-02	7.43E-02	pCi/g		*0.06*	3/14/11 02:02 a		56.0	GER14$1
								0.22			g	
AMERICIUM 241	***-3.04E-02***	U	6.1E-02	6.1E-02	9.97E-02	pCi/g		*-0.3*	3/14/11 02:02 a		56.0	GER14$1
								-(1.)			g	
BA-133	***-2.17E-02***	U	7.1E-02	7.1E-02	9.87E-02	pCi/g		*-0.22*	3/14/11 02:02 a		56.0	GER14$1
								-0.61			g	
CO-60	***-1.34E-02***	U	5.9E-02	5.9E-02	1.05E-01	pCi/g		*-0.13*	3/14/11 02:02 a		56.0	GER14$1
							5.00E-02	*-0.45*			g	
CS-137	***6.76E-02***	U	6.0E-02	6.0E-02	1.13E-01	pCi/g		*0.6*	3/14/11 02:02 a		56.0	GER14$1
							1.00E-01	*(2.2)*			g	
EU-152	***-5.17E-02***	U	1.4E-01	1.4E-01	2.32E-01	pCi/g		*-0.22*	3/14/11 02:02 a		56.0	GER14$1
							1.00E-01	*-0.74*			g	
EU-154	***-3.75E-02***	U	1.8E-01	1.8E-01	3.19E-01	pCi/g		*-0.12*	3/14/11 02:02 a		56.0	GER14$1
							1.00E-01	*-0.42*			g	
EU-155	***1.95E-02***	U	9.6E-02	9.6E-02	1.66E-01	pCi/g		*0.12*	3/14/11 02:02 a		56.0	GER14$1
							1.00E-01	*0.41*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD571AC			**Report DB ID:** 9MFD5710					
PU-238	***-2.71E-03***	U	1.1E-01	1.1E-01	2.03E-01	pCi/g	47%	*-0.01*	3/17/11 05:12 p		1.02	ALP39
						2.82E-02	1.00E+00	*-0.05*			g	
PU239/40	***-2.71E-03***	U	1.1E-01	1.1E-01	2.03E-01	pCi/g	47%	*-0.01*	3/17/11 05:12 p		1.02	ALP39
						2.82E-02	1.00E+00	*-0.05*			g	

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: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:35:00 AM
Lot-Sample No.:	**J1C090444-2**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX87**	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:** MFD571AD			**Report DB ID:** 9MFD5710					
TC-99	***1.20E+00***		3.0E-01	4.5E-01	6.54E-01	pCi/g	100%	*(1.8)*	3/18/11 07:44 p		1.98	LSC6
						3.14E-01	1.50E+01	*(5.3)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:** MFD572AA			**Report DB ID:** 9MFD5720					
STRONTIUM	***3.44E-02***	U	6.7E-02	6.8E-02	1.50E-01	pCi/g	65%	*0.23*	3/23/11 08:00 a		6.0	GPC26C
						6.97E-02		*(1.)*			g	

No. of Results: 12 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:50:00 AM
Lot-Sample No.:	J1C090444-3	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX88	**COC No. :**	RC-107-061	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1068213	GAMMA_GS			**Work Order:** MFD6C1AE			**Report DB ID:** 9MFD6C10					
AG-108M	***1.67E-02***	U	3.8E-02	3.8E-02	6.92E-02	pCi/g		*0.24*	3/14/11 05:13 a		52.9	GER7$1
								0.87			g	
AMERICIUM 241	***9.36E-02***	U	1.2E-01	1.2E-01	2.06E-01	pCi/g		*0.45*	3/14/11 05:13 a		52.9	GER7$1
								(1.6)			g	
BA-133	***-2.30E-02***	U	6.0E-02	6.0E-02	8.63E-02	pCi/g		*-0.27*	3/14/11 05:13 a		52.9	GER7$1
								-0.77			g	
CO-60	***-3.99E-03***	U	5.2E-02	5.2E-02	9.37E-02	pCi/g		*-0.04*	3/14/11 05:13 a		52.9	GER7$1
							5.00E-02	*-0.15*			g	
CS-137	***1.11E-01***		8.3E-02	8.3E-02	8.15E-02	pCi/g		*(1.4)*	3/14/11 05:13 a		52.9	GER7$1
							1.00E-01	*(2.7)*			g	
EU-152	***-2.17E-02***	U	1.2E-01	1.2E-01	2.04E-01	pCi/g		*-0.11*	3/14/11 05:13 a		52.9	GER7$1
							1.00E-01	*-0.37*			g	
EU-154	***1.29E-02***	U	1.6E-01	1.6E-01	2.84E-01	pCi/g		*0.05*	3/14/11 05:13 a		52.9	GER7$1
							1.00E-01	*0.17*			g	
EU-155	***4.45E-02***	U	9.5E-02	9.5E-02	1.67E-01	pCi/g		*0.27*	3/14/11 05:13 a		52.9	GER7$1
							1.00E-01	*0.94*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD6C1AC			**Report DB ID:** 9MFD6C10					
PU-238	***4.71E-02***	U	9.9E-02	1.0E-01	1.86E-01	pCi/g	53%	*0.25*	3/17/11 05:12 p		1.01	ALP40
						2.58E-02	1.00E+00	*0.94*			g	
PU239/40	***-2.48E-03***	U	9.9E-02	9.9E-02	1.86E-01	pCi/g	53%	*-0.01*	3/17/11 05:12 p		1.01	ALP40
						2.58E-02	1.00E+00	*-0.05*			g	

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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:50:00 AM
Lot-Sample No.:	J1C090444-3	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX88	**COC No. :**	RC-107-061	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1068216	TC99_ETVDSK_LSC			**Work Order:**	MFD6C1AD		**Report DB ID:**	9MFD6C10				
TC-99	***1.31E+00***		3.1E-01	4.6E-01	6.87E-01	pCi/g	100%	*(1.9)*	3/18/11 08:47 p		2.0	LSC6
						3.30E-01	1.50E+01	*(5.7)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MFD6C2AA		**Report DB ID:**	9MFD6C20				
STRONTIUM	***8.84E-02***	U	6.9E-02	7.2E-02	1.39E-01	pCi/g	73%	*0.64*	3/23/11 08:00 a		6.0	GPC26D
						6.44E-02		*(2.4)*			g	

No. of Results: 12 **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: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	**J1C090444-4**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX89**	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD6E1AE			**Report DB ID:** 9MFD6E10					
AG-108M	***-8.50E-04***	U	4.0E-02	4.0E-02	6.88E-02	pCi/g		*-0.01*	3/14/11 05:27 a		62.7	GER14$1
								-0.04			g	
AMERICIUM 241	***-1.01E-02***	U	5.4E-02	5.4E-02	9.05E-02	pCi/g		*-0.11*	3/14/11 05:27 a		62.7	GER14$1
								-0.37			g	
BA-133	***1.27E-02***	U	6.1E-02	6.1E-02	8.87E-02	pCi/g		*0.14*	3/14/11 05:27 a		62.7	GER14$1
								0.42			g	
CO-60	***-2.77E-02***	U	4.9E-02	4.9E-02	8.35E-02	pCi/g		*-0.33*	3/14/11 05:27 a		62.7	GER14$1
							5.00E-02	*-(1.1)*			g	
CS-137	***2.30E-02***	U	5.3E-02	5.3E-02	9.61E-02	pCi/g		*0.24*	3/14/11 05:27 a		62.7	GER14$1
							1.00E-01	*0.86*			g	
EU-152	***-3.88E-02***	U	1.3E-01	1.3E-01	2.15E-01	pCi/g		*-0.18*	3/14/11 05:27 a		62.7	GER14$1
							1.00E-01	*-0.6*			g	
EU-154	***-9.68E-03***	U	1.7E-01	1.7E-01	3.07E-01	pCi/g		*-0.03*	3/14/11 05:27 a		62.7	GER14$1
							1.00E-01	*-0.11*			g	
EU-155	***-1.94E-02***	U	8.3E-02	8.3E-02	1.41E-01	pCi/g		*-0.14*	3/14/11 05:27 a		62.7	GER14$1
							1.00E-01	*-0.47*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD6E1AC			**Report DB ID:** 9MFD6E10					
PU-238	***-2.41E-03***	U	9.6E-02	9.6E-02	1.80E-01	pCi/g	57%	*-0.01*	3/17/11 05:13 p		1.01	ALP42
						2.50E-02	1.00E+00	*-0.05*			g	
PU239/40	***0.00E+00***	U	0.0E+00	9.6E-02	1.80E-01	pCi/g	57%	*0.*	3/17/11 05:13 p		1.01	ALP42
						2.50E-02	1.00E+00	*0.*			g	

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: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	**J1C090444-4**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX89**	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:** MFD6E1AD			**Report DB ID:** 9MFD6E10					
TC-99	***3.78E-01***	U	2.6E-01	3.8E-01	6.21E-01	pCi/g	100%	*0.61*	3/18/11 09:50 p		2.04	LSC6
						2.98E-01	1.50E+01	*(2.)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:** MFD6E2AA			**Report DB ID:** 9MFD6E20					
STRONTIUM	***3.53E-02***	U	6.9E-02	7.0E-02	1.54E-01	pCi/g	66%	*0.23*	3/23/11 08:00 a		6.02	GPC27A
						7.17E-02		*(1.)*			g	

No. of Results: 12 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:55:00 AM
Lot-Sample No.:	J1C090444-5	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX90	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD6G1AE			**Report DB ID:** 9MFD6G10					
AG-108M	***-1.23E-03***	U	2.0E-02	2.0E-02	3.58E-02	pCi/g		*-0.03*	3/14/11 09:39 a		52.3	GER11$1
								-0.12			g	
AMERICIUM 241	***-2.38E-02***	U	1.5E-01	1.5E-01	2.49E-01	pCi/g		*-0.1*	3/14/11 09:39 a		52.3	GER11$1
								-0.32			g	
BA-133	***-2.08E-02***	U	3.5E-02	3.5E-02	5.04E-02	pCi/g		*-0.41*	3/14/11 09:39 a		52.3	GER11$1
								-(1.2)			g	
CO-60	***-1.81E-03***	U	3.2E-02	3.2E-02	5.91E-02	pCi/g		*-0.03*	3/14/11 09:39 a		52.3	GER11$1
							5.00E-02	*-0.11*			g	
CS-137	***3.49E-02***	U	3.0E-02	3.0E-02	5.89E-02	pCi/g		*0.59*	3/14/11 09:39 a		52.3	GER11$1
							1.00E-01	*(2.3)*			g	
EU-152	***-2.49E-02***	U	6.7E-02	6.7E-02	1.13E-01	pCi/g		*-0.22*	3/14/11 09:39 a		52.3	GER11$1
							1.00E-01	*-0.75*			g	
EU-154	***9.93E-03***	U	1.1E-01	1.1E-01	2.11E-01	pCi/g		*0.05*	3/14/11 09:39 a		52.3	GER11$1
							1.00E-01	*0.17*			g	
EU-155	***-3.64E-03***	U	6.4E-02	6.4E-02	1.11E-01	pCi/g		*-0.03*	3/14/11 09:39 a		52.3	GER11$1
							1.00E-01	*-0.11*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD6G1AC			**Report DB ID:** 9MFD6G10					
PU-238	***0.00E+00***	U	0.0E+00	9.9E-02	1.86E-01	pCi/g	50%	*0.*	3/17/11 05:13 p		1.01	ALP43
						2.58E-02	1.00E+00	*0.*			g	
PU239/40	***-7.45E-03***	U	9.9E-02	9.9E-02	2.24E-01	pCi/g	50%	*-0.03*	3/17/11 05:13 p		1.01	ALP43
						4.47E-02	1.00E+00	*-0.15*			g	

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.
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FORM I

SAMPLE RESULTS

Date: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:55:00 AM
Lot-Sample No.:	**J1C090444-5**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX90**	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:**	MFD6G1AD		**Report DB ID:**	9MFD6G10				
TC-99	***4.04E-01***	U	2.6E-01	3.9E-01	6.13E-01	pCi/g	100%	*0.66*	3/18/11 11:55 p		2.0	LSC6
						2.94E-01	1.50E+01	*(2.1)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MFD6G2AA		**Report DB ID:**	9MFD6G20				
STRONTIUM	***6.80E-02***	U	7.7E-02	7.9E-02	1.65E-01	pCi/g	64%	*0.41*	3/23/11 08:00 a		6.01	GPC27B
						7.71E-02		*(1.7)*			g	

No. of Results: 12 **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: 24-Mar-11

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	J1C090444-6	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX95	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD641AE			**Report DB ID:** 9MFD6410					
AG-108M	***4.49E-03***	U	3.6E-02	3.6E-02	6.42E-02	pCi/g		*0.07*	3/14/11 09:39 a		54.4	GER7$1
								0.25			g	
AMERICIUM 241	***-1.40E-02***	U	1.1E-01	1.1E-01	1.82E-01	pCi/g		*-0.08*	3/14/11 09:39 a		54.4	GER7$1
								-0.26			g	
BA-133	***3.54E-02***	U	5.5E-02	5.5E-02	8.81E-02	pCi/g		*0.4*	3/14/11 09:39 a		54.4	GER7$1
								(1.3)			g	
CO-60	***-2.44E-02***	U	5.3E-02	5.3E-02	9.02E-02	pCi/g		*-0.27*	3/14/11 09:39 a		54.4	GER7$1
							5.00E-02	*-0.92*			g	
CS-137	***-1.18E-03***	U	4.9E-02	4.9E-02	8.56E-02	pCi/g		*-0.01*	3/14/11 09:39 a		54.4	GER7$1
							1.00E-01	*-0.05*			g	
EU-152	***-2.50E-02***	U	1.1E-01	1.1E-01	1.97E-01	pCi/g		*-0.13*	3/14/11 09:39 a		54.4	GER7$1
							1.00E-01	*-0.44*			g	
EU-154	***1.44E-02***	U	1.5E-01	1.5E-01	2.73E-01	pCi/g		*0.05*	3/14/11 09:39 a		54.4	GER7$1
							1.00E-01	*0.19*			g	
EU-155	***-5.38E-03***	U	8.7E-02	8.7E-02	1.49E-01	pCi/g		*-0.04*	3/14/11 09:39 a		54.4	GER7$1
							1.00E-01	*-0.12*			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD641AC			**Report DB ID:** 9MFD6410					
PU-238	***5.11E-02***	U	1.0E-01	1.0E-01	1.92E-01	pCi/g	52%	*0.27*	3/17/11 05:13 p		1.03	ALP44
						2.66E-02	1.00E+00	*0.99*			g	
PU239/40	***0.00E+00***	U	0.0E+00	1.0E-01	1.92E-01	pCi/g	52%	*0.*	3/17/11 05:13 p		1.03	ALP44
						2.66E-02	1.00E+00	*0.*			g	

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: 24-Mar-11

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	**J1C090444-6**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX95**	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:** MFD641AD			**Report DB ID:** 9MFD6410					
TC-99	***5.91E-01***	U	2.7E-01	4.0E-01	6.31E-01	pCi/g	100%	*0.94*	3/19/11 02:01 a		2.01	LSC6
						3.03E-01	1.50E+01	*(2.9)*			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:** MFD642AA			**Report DB ID:** 9MFD6420					
STRONTIUM	***6.45E-02***	U	7.8E-02	8.0E-02	1.69E-01	pCi/g	65%	*0.38*	3/23/11 08:00 a		6.02	GPC27C
						7.89E-02		*(1.6)*			g	

No. of Results: 12 **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: 24-Mar-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:15:00 AM
Lot-Sample No.:	**J1C080593-1**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX59**	**COC No. :**	RC-107-060	**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: 1068010	7196_CR6			**Work Order:** MFDJ61AD		**Report DB ID:** MFDJ61ER			**Orig Sa DB ID:** 9MFDJ610			
HEXCHROME	1.71E+00			0.0E+00	1.55E-01	mg/kg	N/A	(11.1)	3/9/11		2.5	
	2.64E+00		**RPD**	**42.5**		3.50E-01		N/A			g	

No. of Results: 1 **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.

FORM II

Date: 24-Mar-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:15:00 AM
Lot-Sample No.:	**J1C090444-1**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX86 DUP**	**COC No. :**	RC-107-061	**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: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:** MFD511AG		**Report DB ID:** MFD511GR			**Orig Sa DB ID:** 9MFD5120			
STRONTIUM	1.61E-01	U	8.6E-02	9.6E-02	1.65E-01	pCi/g	67%	0.97	3/23/11 08:00 a		6.01	GPC26A
	9.22E-02	U	**RPD**	**54.3**				(3.4)			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

Date: 24-Mar-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:35:00 AM
Lot-Sample No.:	J1C090444-2	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX87 DUP	**COC No. :**	RC-107-061	**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: 1068213	GAMMA_GS			**Work Order:** MFD571AF		**Report DB ID:** MFD571FR			**Orig Sa DB ID:** 9MFD5710			
AG-108M	-5.51E-03	U	2.3E-02	2.3E-02	4.06E-02	pCi/g		-0.14	3/14/11 05:12 a		52.2	GER11$1
	4.72E-03	U	**RPD**	**-2589.4**				-0.47			g	
AMERICIUM 241	1.13E-01	U	1.5E-01	1.5E-01	2.69E-01	pCi/g		0.42	3/14/11 05:12 a		52.2	GER11$1
	-3.04E-02	U	**RPD**	**347.1**				(1.5)			g	
BA-133	-2.60E-03	U	3.0E-02	3.0E-02	5.12E-02	pCi/g		-0.05	3/14/11 05:12 a		52.2	GER11$1
	-2.17E-02	U	**RPD**	**-157.2**				-0.17			g	
CO-60	2.44E-02	U	3.7E-02	3.7E-02	7.39E-02	pCi/g		0.33	3/14/11 05:12 a		52.2	GER11$1
	-1.34E-02	U	**RPD**	**687.8**		5.00E-02		(1.3)			g	
CS-137	1.05E-01	U	4.0E-02	4.0E-02	7.80E-02	pCi/g		(1.4)	3/14/11 05:12 a		52.2	GER11$1
	6.76E-02	U	**RPD**	**43.6**		1.00E-01		(5.3)			g	
EU-152	3.07E-02	U	6.9E-02	6.9E-02	1.23E-01	pCi/g		0.25	3/14/11 05:12 a		52.2	GER11$1
	-5.17E-02	U	**RPD**	**-783.0**		1.00E-01		0.9			g	
EU-154	-3.29E-02	U	1.1E-01	1.1E-01	1.87E-01	pCi/g		-0.18	3/14/11 05:12 a		52.2	GER11$1
	-3.75E-02	U	**RPD**	**-13.0**		1.00E-01		-0.62			g	
EU-155	-6.78E-02	U	6.5E-02	6.5E-02	1.03E-01	pCi/g		-0.66	3/14/11 05:12 a		52.2	GER11$1
	1.95E-02	U	**RPD**	**-361.3**		1.00E-01		-(2.1)			g	

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

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

Date: 24-Mar-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0106	**Collection Date:**	3/8/2011 9:50:00 AM
Lot-Sample No.:	**J1C090444-3**	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	**J1DX88 DUP**	**COC No. :**	RC-107-061	**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: 1068214	PUISO_PLATE_AEA			**Work Order:** MFD6C1AF		**Report DB ID:** MFD6C1FR			**Orig Sa DB ID:** 9MFD6C10			
PU-238	3.42E-02	U	8.1E-02	8.1E-02	1.81E-01	pCi/g	65%	0.19	3/17/11 05:12 p		0.97	ALP41
	4.71E-02	U	**RPD**	**31.9**		1.00E+00		0.84			g	
PU239/40	3.62E-02	U	8.1E-02	8.1E-02	1.68E-01	pCi/g	65%	0.22	3/17/11 05:12 p		0.97	ALP41
	-2.48E-03	U	**RPD**	**229.5**		1.00E+00		0.89			g	

Alpha Spec Result Sum = 7.0E-02

No. of Results: 2 **Comments:**

TestAmerica Laboratories, Inc.

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.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

Date: 24-Mar-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0106	**Collection Date:**	3/8/2011 10:30:00 AM
Lot-Sample No.:	J1C090444-4	**Report No. :**	46011	**Received Date:**	3/8/2011 3:20:00 PM
Client Sample ID:	J1DX89 DUP	**COC No. :**	RC-107-061	**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: 1068216	TC99_ETVDSK_LSC			**Work Order:** MFD6E1AF		**Report DB ID:** MFD6E1FR			**Orig Sa DB ID:** 9MFD6E10			
TC-99	2.71E-01	U	2.6E-01	3.9E-01	6.26E-01	pCi/g	100%	0.43	3/18/11 10:52 p		1.98	LSC6
	3.78E-01	U	**RPD**	**33.0**		1.50E+01		(1.4)			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: 24-Mar-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0106

Report No. : 46011

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: 1068010	7196_CR6			**Work Order:**	MFDPR1AA		**Report DB ID:**	MFDPR1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	3/9/11		2.5	
						1.55E-01		N/A			g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:**	MFEH11AA		**Report DB ID:**	MFEH11AB				
PU-238	-1.74E-03	U	6.9E-02	6.9E-02	1.30E-01	pCi/g	79%	-0.01	3/17/11 05:14 p		1.0	ALP46
					1.81E-02	1.00E+00		-0.05			g	
PU239/40	-3.48E-03	U	7.0E-02	7.0E-02	1.45E-01	pCi/g	79%	-0.02	3/17/11 05:14 p		1.0	ALP46
					2.56E-02	1.00E+00		-0.1			g	
Batch: 1068216	TC99_ETVDSK_LSC			**Work Order:**	MFEH41AA		**Report DB ID:**	MFEH41AB				
TC-99	3.93E-01	U	2.6E-01	3.8E-01	6.10E-01	pCi/g	100%	0.64	3/19/11 03:03 a		2.04	LSC6
					2.93E-01	1.50E+01		(2.)			g	
Batch: 1068213	GAMMA_GS			**Work Order:**	MFEH01AA		**Report DB ID:**	MFEH01AB				
AG-108M	5.05E-03	U	4.5E-02	4.5E-02	7.83E-02	pCi/g		0.06	3/14/11 09:54 a		52.0	GER14$1
								0.23			g	
AMERICIUM 241	-2.44E-02	U	5.3E-02	5.3E-02	8.77E-02	pCi/g		-0.28	3/14/11 09:54 a		52.0	GER14$1
								-0.92			g	
BA-133	-9.47E-02	U	6.9E-02	6.9E-02	1.06E-01	pCi/g		-0.9	3/14/11 09:54 a		52.0	GER14$1
								-(2.8)			g	
CO-60	2.91E-02	U	6.1E-02	6.1E-02	1.18E-01	pCi/g		0.25	3/14/11 09:54 a		52.0	GER14$1
						5.00E-02		0.95			g	
CS-137	3.98E-02	U	5.6E-02	5.6E-02	1.04E-01	pCi/g		0.38	3/14/11 09:54 a		52.0	GER14$1
						1.00E-01		(1.4)			g	
EU-152	2.36E-02	U	1.3E-01	1.3E-01	2.33E-01	pCi/g		0.1	3/14/11 09:54 a		52.0	GER14$1
						1.00E-01		0.35			g	

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: 24-Mar-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0106

Report No. : 46011

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
EU-154	1.57E-01	U	1.8E-01	1.8E-01	3.60E-01	pCi/g		0.44	3/14/11 09:54 a		52.0	GER14$1
						1.00E-01		(1.7)			g	
EU-155	1.19E-01	U	9.0E-02	9.0E-02	1.62E-01	pCi/g		0.73	3/14/11 09:54 a		52.0	GER14$1
						1.00E-01		(2.6)			g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MFEHQ2AA		**Report DB ID:**	MFEHQ2AB				
STRONTIUM	-3.01E-03	U	4.9E-02	4.9E-02	1.17E-01	pCi/g	96%	-0.03	3/23/11 08:00 a		6.01	GPC27D
					5.43E-02			-0.12			g	

No. of Results: 13 **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: 24-Mar-11

Lab Name: TestAmerica

Matrix: OTHER

SDG: JP0106

Report No. : 46011

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: 1068010	7196_CR6			**Work Order:**	MFDPR1AC		**Report DB ID:**	MFDPR1AS					
HEXCHROME	1.60E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		80%	3/9/11	2.5	
							Rec Limits:	80	120	-0.2		g	
Batch: 1068214	PUISO_PLATE_AEA			**Work Order:**	MFEH11AC		**Report DB ID:**	MFEH11CS					
PU239/40	5.16E+00		8.3E-01	1.4E+00	1.25E-01	pCi/g	77%	6.95E+00	2.1E-01	74%	3/17/11 05:15 p	0.99	ALP121
							Rec Limits:	70	130	-0.3		g	
Batch: 1068216	TC99_ETVDSK_LSC			**Work Order:**	MFEH41AC		**Report DB ID:**	MFEH41CS					
TC-99	7.16E+01		1.2E+00	5.0E+00	6.24E-01	pCi/g	100%	6.88E+01	3.0E-01	104%	3/19/11 04:06 a	1.99	LSC6
							Rec Limits:	70	130	0.0		g	
Batch: 1068213	GAMMA_GS			**Work Order:**	MFEH01AC		**Report DB ID:**	MFEH01CS					
CS-137	5.28E-01		2.2E-01	2.2E-01	2.14E-01	pCi/g		7.60E-01	6.0E-02	70%	3/14/11 01:18 p	26.61	GER14$1
							Rec Limits:	70	130	-0.3		g	
Batch: 1075335	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MFEHQ2AC		**Report DB ID:**	MFEHQ2CS					
STRONTIUM	9.46E-01		1.2E-01	2.7E-01	1.18E-01	pCi/g	92%	1.13E+00	3.1E-02	84%	3/23/11 08:00 a	6.01	GPC28B
							Rec Limits:	70	130	-0.2		g	

No. of Results: 5 **Comments:**

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

rptSTLRchLcs
V5.2.12 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 24-Mar-11

Lab Name: TestAmerica **SDG:** JP0106

Lot-Sample No.: J1C080593-1, J1DX59 **Report No. :** 46011 **Matrix:** OTHER OTHERSOLID

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1068010	Work Order:	MFDJ61AC		Report DB ID:	MFDJ61CW		Orig Sa DB ID:	9MFDJ610				
HEXCHROME	8.59E+00			0.0E+00	1.55E-01	mg/kg	N/A	81.74%	1.05E+01	3/9/11	2.5	7196_CR6
	2.64E+00										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.12 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.

FORM II

MATRIX SPIKE RESULTS

Date: 24-Mar-11

Lab Name: TestAmerica **SDG:** JP0106

Lot-Sample No.: J1C090444-5, J1DX90 **Report No. :** 46011 **Matrix:** OTHER OTHERSOLID

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1068216	Work Order: MFD6G1AF			Report DB ID: MFD6G1FW			Orig Sa DB ID: 9MFD6G10					
TC-99	2.02E+02		1.9E+00	1.4E+01	6.01E-01	pCi/g	100%	90.50%	2.23E+02	3/19/11 12:58 a	2.04	TC99_ETVDSK_LSC
	4.04E-01								9.0E-01		g	LSC6

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.12 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

3/18/2011 9:29:46 AM

Lot No., Due Date: J1C090444; 03/15/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1068214; RPUISO Pulso by ALP
SDG, Matrix: JP0106; 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:

First Level Lisa Anderson **Date** 3/18/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1068214

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 = 1.0pCi/g

Second Level Review: [signature] Date: 3/8/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/23/2011 3:35:11 PM

Lot No., Due Date: J1C090444; 03/15/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1075335; RSRTOT SrTot by GPC
SDG, Matrix: JP0106; 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: reanalysis - NCM	

First Level [signature] **Date** 3/23/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1075335

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 = 1.0 pCi/g

Second Level Review: [signature] Date: 3/24/11

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

TESTAMERICA LABORATORY NONCONFORMANCE MEMO (NCM)

LOG#: RD-98-_____

Corrective Action

Root Cause Initial and date: SB 3/23/11

Lost LCS due to wrong SVOC vial.

Corrective Action Initial and Date: SB 3/23/11

Reanalysis w/ correct vial.

Responsibility for performing CA assigned to: _____

Actions to prevent recurrence Initial and Date: _____

First Level Supervisor: _____ Date: _____

Responsible Manager: _____ Date: _____

Quality Assurance Review

- ☐ Anomaly
- ☐ Deficiency
- ☐ Rerun
- ☐ Further action required: _____

Assigned to: _____

QA signature: _____ Date: _____

Corrective Action Verification

- ☐ Verified
- ☐ Cannot Verify (specify reason): _____

Nonconformance Memo Closure

QA signature/date: _____

TESTAMERICA LABORATORY NONCONFORMANCE MEMO (NCM)

LOG#: RD-98-_____

Corrective Action

Root Cause Initial and date: SE 3/23/11

Lost LCS due to use of Sless vial.

Corrective Action Initial and Date: SE 3/23/11

Reanalysis w/ correct vial.

Responsibility for performing CA assigned to: _____

Actions to prevent recurrence Initial and Date: _____

First Level Supervisor: _____ Date: _____

Responsible Manager: _____ Date: _____

Quality Assurance Review

- ☐ Anomaly
- ☐ Deficiency
- ☐ Rerun
- ☐ Further action required: _____

Assigned to: _____

QA signature: _____ Date: _____

Corrective Action Verification

- ☐ Verified
- ☐ Cannot Verify (specify reason): _____

Nonconformance Memo Closure

QA signature/date: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/15/2011 10:34:25 AM

Lot No., Due Date: J1C090444; 03/15/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1068213; RGAMMA Gamma by GER
SDG, Matrix: JP0106; 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:
elevated MDA's - NCM

First Level [signature] **Date** 3/15/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1068213

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?	RW 3/15/11	✓	
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 = to 0.1 pci/g
RW 3/15/11

Second Level Review: [signature] Date: 3/15/11

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

TESTAMERICA LABORATORY NONCONFORMANCE MEMO (NCM)

LOG #: RD-11-_____

Project ID: _____ NCM Initiated by: _____

Sample Numbers: Batch 1068213

Tests: gamma

Matrix: other

Analytical Area (check appropriate area):

- ☐ Sample control
- ☐ Organic preparation
- ☐ Inorganic preparation
- ☐ GC
- ☐ HPLC
- ☐ GC/MS
- ☐ Wet chemistry
- ☐ Metals
- ☐ Reporting
- ☐ Data review
- ☒ Radiochemistry
- ☐ Bioassay

Nonconformance (check appropriate area):

Holding Time Violations (exceeded by _____ days)

Category I: Laboratory Independent

- ☐ 1. Holding time expired in transit
- ☐ 2. Sample received > 48 hrs. or 1/2 holding time has expired
- ☐ 3. Test added by client after expiration

Category II: Laboratory Dependent

- ☐ 4. Instrument failure
- ☐ 5. Analyst error
- ☐ 6. Login error
- ☐ 7. Miscommunication
- ☐ 8. Other (complete description required)

Category III: Analysis Reruns (QA/QC)

- ☐ 9. Surrogates
- ☐ 10. Internal Standards
- ☐ 11. Spike Recoveries
- ☐ 12. Blank Contamination

Category IV: Analysis Reruns (Confirmation)

- ☐ 13. Second column
- ☐ 14. Contamination check
- ☐ 15. Confirmation of matrix effects
- ☐ 16. Other (complete description required)

Quality Assurance/Quality Control

- ☐ 17. QC data reported outside of controls
- ☐ 18. Incorrect procedure used
- ☐ 19. SOP intentionally modified with QA and Tech. approval
- ☐ 20. Invalid instrument calibration
- ☐ 21. Insufficient sample received for proper analysis

Incorrect or Incomplete Client Deliverable

- ☐ 22. Hardcopy deliverable error
- ☐ 23. Electronic deliverable error

Reported detection limits elevated due to:

- ☐ 24. Sample matrix
- ☐ 25. Insufficient sample volume
- ☒ 26. Other (complete description required)
- ☐ 27. ***Other (specify):*** _____

Comments/Explanation: _____

Notification (check appropriate area):

Client notified by (name and date): _____

- ☐ in writing
- ☐ by facsimile
- ☐ by telephone
- ☐ other (explain)

Client's name and response: _____

- ☐ process "as is"
- ☐ re-sample
- ☐ on hold until _____
- ☐ other (explain)

Project Manager (signature and date): [signature] 3/15/11

TESTAMERICA LABORATORY NONCONFORMANCE MEMO (NCM)

LOG#: RD-98-_____

Corrective Action

Root Cause Initial and date: SEL 3/15/11

short priority count times

Corrective Action Initial and Date: SEL 3/15/11

report

Responsibility for performing CA assigned to: _____

Actions to prevent recurrence Initial and Date: SEL 3/15/11

none client req

First Level Supervisor: _____ Date: _____

Responsible Manager: _____ Date: _____

Quality Assurance Review

☐ Anomaly ☐ Deficiency ☐ Rerun

☐ Further action required: _____

Assigned to: _____

QA signature: _____ Date: _____

Corrective Action Verification

☐ Verified

☐ Cannot Verify (specify reason): _____

Nonconformance Memo Closure

QA signature/date: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

3/21/2011 1:07:01 PM

Lot No., Due Date: J1C090444; 03/15/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1068216; RTC99 Tc-99 by LSC
SDG, Matrix: JP0106; 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:

First Level Lisa Anderson Date 3/21/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1068216

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

Comments on any "No" response: CRDL = 15.0 pCi/g

Second Level Review: [signature] Date: 3/21/16

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): **1068010**

Lab Sample Numbers or SDG: ~~J90106~~ J P0106 WR 3/16/11

Method/Test/Parameter: **Cr+6 in SOLID / RL-WC-004**

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis				
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?	✓			✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	~~✓~~ TOA 3/15/14	✓		✓
4. Analytical spikes within QC limits where applicable?	✓			✓
5. ICP only: One serial dilution performed per SDG?			✓	✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
E. Other			✓ TOA	3/15/11
1. Are all nonconformances included and noted?	✓			✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response:

Analyst: _____ Date: 3-14-11

Second-Level Review: _____ Date: 3/15/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17730**
NCM Initiated By: Tim Armstrong
Date Opened: 03/15/2011
Date Closed: 03/15/2011

Classification: **Anomaly**
Status: **CLOSED**
Production Area: Classical Chemistry
Tests: None
Lot #'s (Sample #'s): ,
QC Batches: None.,

Nonconformance: Dups not within acceptance limits
Subcategory: Inhomogenity of the Sample

Problem Description / Root Cause

Name	Date	Description
Tim Armstrong	03/15/2011	Sample/Dup not within 20% RPD

Corrective Action

Name	Date	Corrective Action
Tim Armstrong	03/15/2011	Report Data.

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: 3/15/2011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-107-060	Page 1 of 3

Collector: M. Blanking	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L, 9B	Data Turnaround: 21 Days 7		
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing		SAF No.: RC-107
Ice Chest No.: NA	Field Logbook No.: EL 1627-04	COA: 0126H22600	Method of Shipment: Government Vehicle / Hand-Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	Chromium Hex - 7196										

J1C080593

Sample No.	Matrix *	Sample Date	Sample Time								
~~J1DX58~~	~~SOIL~~										
J1DX59	SOIL	3-8-11	0915	X			MFDJ6				
J1DX60	SOIL	3-8-11	0935	X			MFDKA				
J1DX61	SOIL	3-8-11	0950	X			MFDKD				
J1DX62	SOIL	3-8-11	1030	X			MFDKE				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
M. Blanking	3-8-11 1200	L.R. Edmondson	3-8-11 1200
L.R. Edmondson	3-8-11 1315	A. Freier	3-8-11 1315
A. Freier	3-8-11 1520	TAR	3/8/11 1520

SPECIAL INSTRUCTIONS

*24-Hr. Hold
JEB 3-8-11 Due 3.15.11
J1C080593

REVIEWED BY JEB DATE 3-8-11

SDG
JP0106

Matrix *: S=Soil, SE=Sediment, SO=Solid, Sl=Sludge, W = Water, O=Oil, A=Air, DS=Drum Solids, DL=Drum Liquids, T=Tissue, Wl=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-107-060	Page 5 of 6

Collector: M. Blanking ~~shing~~ ship	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L, 9B	Data Turnaround: ~~21 Days~~ 7		
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing		SAF No.: RC-107
Ice Chest No.: NA	Field Logbook No.: EL 1627-04	COA: 0126H22600	Method of Shipment: Government Vehicle / Hand-Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	Chromium Hex - 7196										

J1C080593

Sample No.	Matrix *	Sample Date	Sample Time									
J1DX63	SOIL	3-8-11	1055	X				MFDKH				
J1DX64	SOIL											
J1DX65	SOIL											
J1DX66	SOIL											
J1DX67	SOIL											

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
MATS Warehouse	3-8-11 1200	J.R. Edmundson	3-8-11 1200
J.R. Edmundson	3-8-11 1315	A. Freier	3-8-11 1315
A. Freier	3-8-11 1520	TAUR	3/8/11 1520

SPECIAL INSTRUCTIONS

*24 Hr. Hold
JEB 3-8-11

J1C080593

REVIEWED BY JEB DATE 3-8-11

JP0106

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-107-060	Page 6 of 6
Collector M. Blanking ~~ching~~	Company Contact Joan Kessner / Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code ~~8L~~ 9B / Data Turnaround ~~21~~ 7 Days
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing	SAF No. RC-107	
Ice Chest No. NA	Field Logbook No. EL 1627-04 / COA 0126H22600	Method of Shipment Government Vehicle / Hand - Deliver	
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	Chromium Hex - 7196										

Sample No.	Matrix *	Sample Date	Sample Time										
J1DX68	SOIL	3-8-11	1030	X									
~~J1DX69~~	~~SOIL~~												

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Matt Blankingship	3-8-11 1200	J.R. Edmondson	3-8-11 1200
J.R. Edmondson	3-8-11 1315	A. Freier	3-8-11 1315
A. Freier	3-8-11 1520	[illegible]	3/8/11 1520

SPECIAL INSTRUCTIONS

24-Hr. Hold
JEB 3-8-11

REVIEWED BY JEB DATE 3-8-11

J1C080593

JP0106

Matrix *
S=Soil
SE=Sediment
SO=Solid
SJ=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

Apex™

J1FHN5

Analysis Report for RCF27205

J1FHN6 SAF:RC-182 100F/100-F-47 RR tracks staining

Non-Reg

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27205
Sample Description	: J1FHN6 SAF:RC-182 100F/100-F-47 RR tracks staining
Sample Type	: 80g pillbox
Sample Size	: 7.300E+01 grams
Facility	: Default
Sample Taken On	: 3/7/2011 8:45:00AM
Acquisition Started	: 3/8/2011 6:39:05AM
Procedure	: 80 Gram Pill Box
Operator	: RCT
Detector Name	: GEA2703
Geometry	: 80 Gram Pill Box
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	: 2/2/2011
Efficiency Calibration Used Done On	: 2/23/2011
Efficiency Calibration Description	: GEA2703 80gPB 020311EC SN82752-238
Sample Number	: 12181

INTERFERENCE CORRECTED REPORT

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
	K-40		0.987	1.08E+01	2.56E+00	
	PB-212		0.708	9.49E-01	1.60E-01	
	RA-226d	@	0.989	1.40E+00	1.72E-01	
	TH-232d		0.421	5.39E-01	1.04E-01	
X	U-235		0.528			

TestAmerica

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- WCH -

Sample Check-in List

TACR

Date/Time Received: 3·8·11 @ 1520 GM Screen Result (out) .3 (in) .5 Initials [✓]

Client: WCH SDG #: JP0106 NA [ ] SAF #: RC-107 NA [ ]

Work Order Number: JIC080593 Chain of Custody # RC-107-060

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 6 @ 1 liter per sample
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ____ tape
   - ✓ custody seals
   - ✓ hazard labels
   - ✓ appropriate sample labels
9. Samples:
   - ✓ are in good condition (Soil)
   - ____ 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 [✓] (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 : _____
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓] _____

See other side for additional comments

Sample Custodian: [signature] Date: 3·8·11 @ 1520 TACR

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 3/8/11

TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-107-061	Page 1 of 1
Collector M. Blankingship	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 9B
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing		SAF No. RC-107	Data Turnaround 7 Days
Ice Chest No. NA	Field Logbook No. EL 1627-04	COA 0126H22600	Method of Shipment Government Vehicle/FedEx / Hand-Deliver	
Shipped To ~~EBERLINE SERVICES / LIONVILLE~~ TestAmerica Richland	Offsite Property No. NA		Bill of Lading/Air Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Client #127642
Quote# 27038
SDG# JP0106
Lot# J1C090444
Due 3-15-11

Special Handling and/or Storage
~~Cool 4 Deg C~~
NONE
JEB 3-8-11

CK 3-9-11

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	40mL	120mL	40mL	120mL	120mL	~~500mL~~ 120mL	120mL
	See item (1) in Special Instructions.	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions.	Isotopic Plutonium

SAMPLE ANA J1C090444

3-8-11

Sample No.	Matrix *	Sample Date	Sample Time										
~~J1DX85~~	~~SOIL~~												
J1DX86	SOIL	3-8-11	0915					MFD5	1			X	X
J1DX87	SOIL	3-8-11	0935					MFD5	7			X	X
J1DX88	SOIL	3-8-11	0950					MFD6	C			X	X
J1DX89	SOIL	3-8-11	1030					MFD6	E			X	X

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[signature]	3-8-11 1200	[signature]	3-8-11 1200
[signature]	3-8-11 1315	A. Freier [signature]	3-8-11 1315
A. Freier [signature] WCH	3-8-11 1520	[signature] TALR	3/8/11 1520

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate}; NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

REVIEWED BY JEB DATE 3-8-11

JP0106

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-107-061	Page 2 of 6
Collector M. Blankingship	Company Contact: Joan Kessner; Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH	Price Code 8L 9B
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing	SAF No.: RC-107	Data Turnaround 21 Days
Ice Chest No.: NA	Field Logbook No.: EL 1627-04; COA: 0126H22600	Method of Shipment: Government Vehicle/FedEx	
Shipped To: ~~EBERLINE SERVICES / LIONVILLE~~ TestAmerica Richland	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Client #127642
Order #42703 8
SDG # JP1037 0106
CK 3-9-11
Lot# J1C090444

Special Handling and/or Storage

~~Cool 4 Deg C~~ NONE
JEB 3-8-11

Preservation	None	None										
Type of Container	G/P	G/P										
No. of Container(s)	0	0										
Volume	120mL	120mL										
SAMPLE ANALYSIS	~~Nickel-63~~, Strontium-89,90 – Total Sr	Technetium-99										

Sample No.	Matrix *	Sample Date	Sample Time										
~~J1DX85~~	~~SOIL~~												
J1DX86	SOIL	3-8-11	0915	X	X								
J1DX87	SOIL	3-8-11	0935	X	X								
J1DX88	SOIL	3-8-11	0950	X	X								
J1DX89	SOIL	3-8-11	1030	X	X								

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
	1200 3-8-11	T.R. Edmundson	3-8-11 1200
T.R. Edmundson	3-8-11 1315	A. Freier	1315 3-8-11
A. Freier	1520 3-8-11	TAR	3/8/11

SPECIAL INSTRUCTIONS

REVIEWED BY JEB DATE 3-8-11

JP0106

Matrix *: S=Soil, SE=Sediment, SO=Solid, SJ=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-107-061	Page 3 of 6
Collector: M. Blankingshing	Company Contact: Joan Kessner; Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH	Price Code: 8L 9B; Data Turnaround: 21 Days
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing	SAF No.: RC-107	
Ice Chest No.: NA	Field Logbook No.: EL 1627-04; COA: 0126H22600	Method of Shipment: Government Vehicle/~~FedEx~~ AF 3-8-11 Hand-Deliver	
Shipped To: ~~EBERLINE SERVICES / LIONVILLE~~ Test America Richland	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

None Lot#J1C090444

Special Handling and/or Storage

~~Cool 4 Deg C~~ NONE JEB 3-8-11

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	40mL	120mL	40mL	120mL	120mL	~~500mL~~ 120mL	120mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions.	Isotopic Plutonium

Sample No.	Matrix *	Sample Date	Sample Time										
J1DX90	SOIL	3-8-11	1055					MFD6	G			X	X
~~J1DX91~~	~~SOIL~~												
~~J1DX92~~	~~SOIL~~												
~~J1DX93~~	~~SOIL~~												
~~J1DX94~~	~~SOIL~~												

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From: M. Blankingshing	3-8-11 1200	Received By/Stored In: J.R. Edmondson	3-8-11 1200
Relinquished By/Removed From: J.R. Edmondson	3-8-11 1315	Received By/Stored In: A. Freier	3-8-11 1315
Relinquished By/Removed From: A. Freier	3-8-11 1520	Received By/Stored In: TALR	3/8/11 1520
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate}; NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

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 JEB DATE 3-8-11

JP0106

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

WCH-EE-011

TestAmerica Laboratories, Inc.

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-107-061	Page 1 of 1

Collector: M. Blankingship	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L, 93	Data Turnaround: 21 Days 7		
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing		SAF No.: RC-107
Ice Chest No.: NA	Field Logbook No.: EL 1627-04	COA: 0126H22600	Method of Shipment: Government Vehicle/FedEx / Hand-Deliver
Shipped To: ~~EBERLINE SERVICES / LIONVILLE~~ TestAmerica Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Lot#J1C090444

Special Handling and/or Storage

~~Cool 4 Deg C~~ NONE JEB 3-8-11

Preservation	None	None										
Type of Container	G/P	G/P										
No. of Container(s)	0	0										
Volume	120mL	120mL										
SAMPLE ANALYSIS	~~Nickel-63,~~ Strontium-89,90 -- Total Sr	Technetium-99										
Sample No.	Matrix *	Sample Date	Sample Time									
J1DX90	SOIL	3-8-11	1055	X	X							
~~J1DX91~~	~~SOIL~~											
~~J1DX92~~	~~SOIL~~											
~~J1DX93~~	~~SOIL~~											
~~J1DX94~~	~~SOIL~~											

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From: MBlankingship	Date/Time: 1200 3-8-11	Received By/Stored In: LR Bondson	Date/Time: 3-8-11 1200
Relinquished By/Removed From: LR Bondson	Date/Time: 3-8-11 1315	Received By/Stored In: A. Freier A. Freier	Date/Time: 1315 3-8-11
Relinquished By/Removed From: A. Freier A. Freier	Date/Time: 1520 3-8-11	Received By/Stored In: Lucas Rodriguez TALR	Date/Time: 1520 3/8/11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

REVIEWED BY JEB DATE 3-8-11

JP0106

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-107-061	Page 5 of 6
Collector M. Blankingship	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8L
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing		SAF No. RC-107	Data Turnaround 7 Days
Ice Chest No. NA	Field Logbook No. EL 1627-04	COA 0126H22600	Method of Shipment Government Vehicle/FedEx Hand Deliver	
Shipped To TestAmerica Richland ~~EBERLINE SERVICES / LIONVILLE~~	Offsite Property No. NA		Bill of Lading/Air Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Lot #J1C090444

Special Handling and/or Storage

~~Cool 4 Deg C~~

None

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	40mL	120mL	40mL	120mL	120mL	~~500mL~~ 120mL	120mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions. *	Isotopic Plutonium

Sample No.	Matrix *	Sample Date	Sample Time									
J1DX95	~~SOIL~~	3-8-11	1030				MFD6	4			X	X
~~J1DX96~~	~~SOIL~~											

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Mark A. Blankingship	3-8-11 1200	L.R. Edmondson	3-8-11 1200
L.R. Edmondson	3-8-11 1315	A. Freier	3-8-11 1315
A. Freier	3-8-11 1530	TALR	3/8/11 1530
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate}; NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

* Also Run: ~~Sr-89/90~~, ~~Tot-99~~

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

REVIEWED BY JEB DATE 3-8-11

JP0106

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-107-061	Page 1 of 1
Collector M. Blankingship	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 913 / Data Turnaround 21 Days
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing		SAF No. RC-107	
Ice Chest No. NA	Field Logbook No. EL 1627-04	COA 0126H22600	Method of Shipment Government Vehicle/FedEx Hand Deliver	
Shipped To EBERLINE SERVICES / LIONVILLE	Offsite Property No. NA		Bill of Lading/Air Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Lot #J1C090444

Special Handling and/or Storage

Cool 4 Deg C NONE

AP 3-8-11

Preservation	None	None										
Type of Container	G/P	G/P										
No. of Container(s)	0	0										
Volume	120mL	120mL										
SAMPLE ANALYSIS	~~Nickel-59,~~ Strontium-89,90 – Total Sr	Technetium-99										
Sample No.	Matrix *	Sample Date	Sample Time									
J1DX95	SOIL	3-8-11	1030	X	X							
~~J1DX96~~	~~SOIL~~											

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 1200	Received By/Stored In	Date/Time
WCH Blankingship	3-8-11	T.R. Edmondson	3-8-11 1200
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time 1315
T.R. Edmondson	3-8-11 1315	A. Freier	3-8-11
Relinquished By/Removed From WCH	Date/Time 1530	Received By/Stored In	Date/Time 1530
A. Freier	3-8-11	Lucas Delarosa TALA	3/8/11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

REVIEWED BY JEB DATE 3-8-11

JP0106

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

J1C090444

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3·8·11 1520 GM Screen Result (out) .3 (in) .5 Initials [CK]

Client: WCH SDG #: _____ NA [ ] SAF #: RC-107 NA [CK]

Work Order Number: J1C090444 Chain of Custody # RC-107-061

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 [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): 6 samples @ 1 JAR 120MLS
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   ____ tape
   CK custody seals
   (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 : _____
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: 3.8.11 1500

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is

Project Manager [signature] Date 3/8/11

TestAmerica Laboratories, Inc.

3/12/2011 10:35:36 AM

Sample Preparation/Analysis

Balance Id:1120373922

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

6A Pu Prp PRP003/PRP005, Sep ALP002(ALP015)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068214 OTHER pCi/g PM, Quote: RW , 27038

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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MFD51-1-AC J1C090444-1-SAMP 03/08/2011 09:15	AmtRec: 1XJAR120MLG	1.01g,in	putc12042 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
2 MFD57-1-AC J1C090444-2-SAMP 03/08/2011 09:35	AmtRec: 1XJAR120MLG	1.02g,in	putc12043 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
3 MFD6C-1-AC J1C090444-3-SAMP 03/08/2011 09:50	AmtRec: 1XJAR120MLG	1.01g,in	putc12044 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
4 MFD6C-1-AF-X J1C090444-3-DUP 03/08/2011 09:50	AmtRec: 1XJAR120MLG	0.97g,in	putc12045 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
5 MFD6E-1-AC J1C090444-4-SAMP 03/08/2011 10:30	AmtRec: 1XJAR120MLG	1.01g,in	putc12046 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
6 MFD6G-1-AC J1C090444-5-SAMP 03/08/2011 10:55	AmtRec: 1XJAR120MLG	1.01g,in	putc12047 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		
7 MFD64-1-AC J1C090444-6-SAMP 03/08/2011 10:30	AmtRec: 1XJAR120MLG	1.03g,in	putc12048 03/10/11,pd 01/01/10,r #Containers: 1	Scr:	Alpha:	Beta:		

3/12/2011 10:35:36 AM

Sample Preparation/Analysis

PRIORITY

Balance Id:1120373922

6A Pu Prp PRP003/PRP005, Sep ALP002(ALP015)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068214 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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MFEH1-1-AA-B		1.00g,in	putc12049					
J1C090000-214-BLK			03/10/11,pd					
03/09/2011 10:53 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 MFEH1-1-AC-C		0.99g,in	pusk0831					
J1C090000-214-LCS			01/07/11,pd					
03/09/2011 10:53 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

MFD511AC-SAMP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						
MFEH11AA-BLK:											
PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						
MFEH11AC-LCS:											
PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

MFD511AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEH11AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEH11AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

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3/18/2011 9:29:10 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/18/2010, 3/23/2011, Batch: '1068214', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1068214						
AC		Rev1C	**WoodT**	3/12/2011 10:24:22		
SC			wagarr	IsBatched	3/9/2011 10:53:48 AM	ICOC_RADCALC v4.8.49
SC			WoodT	InPrep	3/12/2011 10:24:22 AM	rl-prp-003 revision 1
SC			BouslaughP	Prep1C	3/14/2011 10:20:04 AM	RL-PRP-003 REVISION 1
SC			BockT	Sep1C	3/15/2011 1:21:26 PM	RL-ALP-001 REVISION 2
SC			HoganH	Sep2C	3/17/2011 12:59:24 PM	RL-ALP-015 REVISION 1
SC			BlackCL	InCnt1	3/17/2011 1:44:01 PM	RL-CI-008 REVISION 1
SC			DawkinsO	CalcC	3/18/2011 12:21:46 AM	RL-CI-008 REVISION 1
SC			antonsonl	Rev1C	3/18/2011 9:28:57 AM	RL-DR-001 Rev 2
AC			**BouslaughP**	3/14/2011 10:20:04		
AC			**BockT**	3/15/2011 1:21:26 PM		RL-ALP-001
AC			**HoganH**	3/17/2011 12:59:24		
AC			**BlackCL**	3/17/2011 1:44:01 PM		
AC			**DawkinsO**	3/18/2011 12:21:46		
AC			**antonsonl**	3/18/2011 9:28:57		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions v4.8.44

3/17/2011 9:06:13 AM

Sample Preparation/Analysis

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

CH Sr-Total Prp PRP003, Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: _____
Sep1 DT/Tm Tech: 20:25 3/22/11 APA
Sep2 DT/Tm Tech:
Prep Tech: ,BouslaughP

AnalyDueDate: 03/15/2011

Batch: 1075335 OTHER pCi/g PM, Quote: RW , 27038
SEQ Batch, Test: None

TestAmerica Laboratories, Inc.

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 MFD51-1-AG-X J1C090444-1-DUP 03/08/2011 09:15		6.01g,in AmtRec: 1XJAR120MLG #Containers: 1	SRTA20757 03/16/11	1.5	1.4718g -1.4051g 66.7mg	50	26A Scr:	0825 Alpha:	3/28/11 Beta:	
2 MFD51-2-AA J1C090444-1-SAMP 03/08/2011 09:15		6.00g,in AmtRec: 1XJAR120MLG #Containers: 1	SRTA20758 03/16/11		1.4709g -1.3975g 73.4 mg		26B Scr:	Alpha:	Beta:	
3 MFD57-2-AA J1C090444-2-SAMP 03/08/2011 09:35		6.00g,in AmtRec: 1XJAR120MLG #Containers:	SRTA20759 03/16/11		1.4688g -1.4037g 65.1 mg		26C Scr:	Alpha:	Beta:	
4 MFD6C-2-AA J1C090444-3-SAMP 03/08/2011 09:50		6.00g,in AmtRec: 1XJAR120MLG #Containers:	SRTA20760 03/16/11		1.4663g -1.3937g 72.6mg		26D Scr:	Alpha:	Beta:	
5 MFD6E-2-AA J1C090444-4-SAMP 03/08/2011 10:30		6.02g,in AmtRec: 1XJAR120MLG #Containers:	SRTA20761 03/16/11		1.4671g -1.4010g 66.1mg		27A Scr:	Alpha:	Beta:	
6 MFD6G-2-AA J1C090444-5-SAMP 03/08/2011 10:55		6.01g,in AmtRec: 1XJAR120MLG #Containers: 1	SRTA20762 03/16/11		1.4408g -1.3766g 64.2mg		27B Scr:	Alpha:	Beta:	
7 MFD64-2-AA J1C090444-6-SAMP 03/08/2011 10:30		6.02g,in AmtRec: 1XJAR120MLG #Containers: 1	SRTA20763 03/16/11		1.4438g -1.3793g 64.5mg		27C Scr:	Alpha:	Beta:	

3/17/2011 9:06:14 AM

Sample Preparation/Analysis

CH Sr-Total Prp PRP003, Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1075335 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP

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:
8 MFEHQ-2-AA-B J1C090000-211-BLK 03/16/2011 14:09 pd	AmtRec:	6.01g,in #Containers: 1	SRTA20764 03/16/11	1.5	1.4764g -1.3800g 96.4 mg	50	27D Scr:	0025 Alpha:	3/23/11 Beta:	
9 MFEHQ-2-AC-C J1C090000-211-LCS 03/16/2011 14:09 pd	AmtRec:	6.01g,in #Containers: 1	STSB1575 03/10/11		1.4788g -1.3864g 92.4 mg		28B Scr:	Alpha:	Beta:	

Comments:

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

MFD511AG-DUP Constituent List:
Sr-90 RDL:1 pCi/g LCL:70 UCL:130 RPD:35
MFEHQ2AA-BLK:
Sr-90 RDL:1 pCi/g LCL: UCL: RPD:
MFEHQ2AC-LCS:
Sr-90 RDL:1 pCi/g LCL:70 UCL:130 RPD:35

MFD511AG-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEHQ2AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEHQ2AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

*** RE-ANALYSIS REQUEST ***

DUE DATE 3/15/11

CUSTOMER UCH

ANALYSIS TSr

MATRIX Other

LOT NUMBER JIC90444

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 10608211

NEW BATCH NUMBER 10755335

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) All		NO recovery on LCS
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048 Rev 9, 9/10

3/23/2011 3:34:31 PM

ICOC Fraction Transfer/Status Report

ByDate: 3/23/2010, 3/28/2011, Batch: '1075335', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1075335						
AC		**Rev1C**	**BouslaughP**	3/17/2011 8:51:22		
SC			bouslaughp	IsBatched	3/17/2011 8:47:50 AM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	3/17/2011 8:51:22 AM	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	3/18/2011 2:42:38 AM	RL-PRP-003 REVISION 1
SC			AshworthA	Sep2C	3/22/2011 9:54:26 PM	RL-GPC-003 REVISION 1
SC			DawkinsO	InCnt1	3/22/2011 11:00:29 PM	RL-CI-006 REVISION 1
SC			WhelandS	Rev1C	3/23/2011 3:34:23 PM	RL-DR-001 Rev 2
AC			**WoodT**	3/18/2011 2:42:38		
AC			**AshworthA**	3/22/2011 9:54:26 PM		
AC			**DawkinsO**	3/22/2011 11:00:29		
AC			**WhelandS**	3/23/2011 3:34:23 PM		

AC: Accepting Entry; SC: Status Change

3/12/2011 7:02:54 AM

Sample Preparation/Analysis

Balance Id:n/a

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

PRIORITY

Pipet #: _____

AnalyDueDate: 03/15/2011 JP0106

Sep1 DT/Tm Tech:

Batch: 1068213 OTHER pCi/g PM, Quote: RW , 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1068211 CHTH, 1068213 AXTA, 1068214 6ASO, 1068216 ANS5,

Prep Tech: ,SannohS

TestAmerica Laboratories, Inc.

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 ~~MFD51~~-1-AE J1C090444-1-SAMP 03/08/2011 09:15			51.60g,in AmtRec: 1XJAR120MLG	51.60g #Containers: 1		325	200	611 Scr:	0520 Alpha:	3/14/11 Beta:	
2 MFD57-1-AE J1C090444-2-SAMP 03/08/2011 09:35			56.00g,in AmtRec: 1XJAR120MLG	56.00g #Containers: 1				614 Scr:	0522 Alpha:	↓ Beta:	
3 MFD57-1-AF-X J1C090444-2-DUP 03/08/2011 09:35			52.20g,in AmtRec: 1XJAR120MLG	52.20g #Containers: 1				611 Scr:	0532 Alpha:	3/14/11 Beta:	
4 MFD6C-1-AE J1C090444-3-SAMP 03/08/2011 09:50			52.90g,in AmtRec: 1XJAR120MLG	52.90g #Containers: 1				67 Scr:	0535 Alpha:	↓ Beta:	
5 MFD6E-1-AE J1C090444-4-SAMP 03/08/2011 10:30			62.70g,in AmtRec: 1XJAR120MLG	62.70g #Containers: 1				614 Scr:	0547 Alpha:	3/14/11 Beta:	
6 MFD6G-1-AE J1C090444-5-SAMP 03/08/2011 10:55			52.30g,in AmtRec: 1XJAR120MLG	52.30g #Containers: 1				611 Scr:	1259 Alpha:	↓ Beta:	
7 MFD64-1-AE J1C090444-6-SAMP 03/08/2011 10:30			54.40g,in AmtRec: 1XJAR120MLG	54.40g #Containers: 1				67 Scr:	1259 Alpha:	↓ Beta:	

3/12/2011 7:03:03 AM

Sample Preparation/Analysis

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

PRIORITY

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068213 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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:
8 MFEH0-1-AA-B J1C090000-213-BLK 03/09/2011 10:53 pd			52.00g,in AmtRec:	52.00g #Containers: 1	osbk	525	200	614 Scr:	1314 Alpha:	3/14/11 Beta:	
9 MFEH0-1-AC-C J1C090000-213-LCS 03/09/2011 10:53 pd			26.61g,in AmtRec:	26.61g #Containers: 1	CAL3122 JSW 3/12/11	25		614 Scr:	1635 Alpha:	↓ Beta:	

Comments:

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

MFD511AE-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:

MFEH01AA-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:

MFEH01AC-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						

MFD511AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEH01AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MFEH01AC-LCS:

TestAmerica Laboratories, Inc.

3/12/2011 7:03:05 AM

Sample Preparation/Analysis

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

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068213 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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:

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

TestAmerica Laboratories, Inc.

3/15/2011 10:33:37 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/15/2010, 3/20/2011, Batch: '1068213', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1068213						
AC		**Rev1C**	**SannohS**	3/11/2011 10:04:09		
SC			wagarr	IsBatched	3/9/2011 10:53:48 AM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	3/11/2011 10:04:09 AM	RL-GAM-001 REVISION 1
SC			ClarkR	InCnt1	3/12/2011 9:38:31 AM	RL-CI-007 REVISION 1
SC			DawkinsO	CalcC	3/14/2011 10:47:42 PM	RL-CI-007 REVISION 1
SC			WhelandS	Rev1C	3/15/2011 10:33:18 AM	RL-DR-001 Rev 2
AC			**ClarkR**	3/12/2011 9:38:31		
AC			**DawkinsO**	3/14/2011 10:47:42		
AC			**WhelandS**	3/15/2011 10:33:18		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.44

3/12/2011 10:22:36 AM

Sample Preparation/Analysis

Balance Id:1120373922

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

PRIORITY

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068216 OTHER pCi/g PM, Quote: RW , 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1068211 CHTH, 1068213 AXTA, 1068214 6ASO, 1068216 ANS5,

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MFD51-1-AD J1C090444-1-SAMP 03/08/2011 09:15		1.98g,in AmtRec: 1XJAR120MLG #Containers: 1		60		Scr:	Alpha:	Beta:
2 MFD57-1-AD J1C090444-2-SAMP 03/08/2011 09:35		1.98g,in AmtRec: 1XJAR120MLG #Containers: 1				Scr:	Alpha:	Beta:
3 MFD6C-1-AD J1C090444-3-SAMP 03/08/2011 09:50		2.00g,in AmtRec: 1XJAR120MLG #Containers: 1				Scr:	Alpha:	Beta:
4 MFD6E-1-AD J1C090444-4-SAMP 03/08/2011 10:30		2.04g,in AmtRec: 1XJAR120MLG #Containers: 1				Scr:	Alpha:	Beta:
5 MFD6E-1-AF-X J1C090444-4-DUP 03/08/2011 10:30		1.98g,in AmtRec: 1XJAR120MLG #Containers: 1				Scr:	Alpha:	Beta:
6 MFD6G-1-AD J1C090444-5-SAMP 03/08/2011 10:55		2.00g,in AmtRec: 1XJAR120MLG #Containers: 1				Scr:	Alpha:	Beta:
7 MFD6G-1-AF-S J1C090444-5-MS 03/08/2011 10:55		2.04g,in AmtRec: 1XJAR120MLG #Containers: 1	tcsg3064 12/21/10,pd 01/01/87 r			Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

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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

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.49

3/12/2011 10:22:37 AM

Sample Preparation/Analysis

Balance Id:1120373922

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

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068216 OTHER pCi/g PM, Quote: RW , 27038

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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MFD64-1-AD J1C090444-6-SAMP 03/08/2011 10:30		2.01g,in AmtRec: 1XJAR120MLG	#Containers: 1	60		Scr:	Alpha:	Beta:
9 MFEH4-1-AA-B J1C090000-216-BLK 03/09/2011 10:53 pd		2.04g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 MFEH4-1-AC-C J1C090000-216-LCS 03/09/2011 10:53 pd		1.99g,in AmtRec:	tcsf2068 03/04/11,pd 01/01/87 r #Containers: 1			Scr:	Alpha:	Beta:
11 MFEH4-1-AD-BN J1C090000-216-IBLK 03/09/2011 10:53 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

MFD511AD-SAMP Constituent List:
  Tc-99       RDL:15        pCi/g     LCL:70      UCL:130     RPD:35
MFD6G1AF-MS:

MFEH41AA-BLK:
  Tc-99       RDL:15        pCi/g     LCL:        UCL:        RPD:
MFEH41AC-LCS:
  Tc-99       RDL:15        pCi/g     LCL:70      UCL:130     RPD:35
```

3/12/2011 10:22:37 AM

Sample Preparation/Analysis

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 03/15/2011

Batch: 1068216 pCi/g
SEQ Batch, Test: None

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

```
MFEH41AD-IBLK:
 Tc-99        RDL:15          pCi/g     LCL:        UCL:        RPD:
MFD511AD-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFD6G1AF-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFEH41AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFEH41AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFEH41AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

3/21/2011 1:06:28 PM

ICOC Fraction Transfer/Status Report

ByDate: 3/21/2010, 3/26/2011, Batch: '1068216', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1068216						
AC		Rev1C	WoodT	3/12/2011 9:48:27		
SC			wagarr	IsBatched	3/9/2011 10:53:48 AM	ICOC_RADCALC v4.8.49
SC			WoodT	InPrep	3/12/2011 9:48:27 AM	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	3/15/2011 2:34:47 AM	RL-PRP-003 REVISION 1
SC			BlackCL	InCnt1	3/17/2011 1:22:10 PM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	3/19/2011 8:58:51 AM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	3/21/2011 1:06:18 PM	RL-DR-001 Rev 2
AC			WoodT	3/15/2011 2:34:47		
AC			BlackCL	3/17/2011 1:22:10 PM		
AC			BlackCL	3/19/2011 8:58:51		
AC			antonsonl	3/21/2011 1:06:18 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.44

3/16/2011 7:58:16 AM

Sample Preparation/Analysis

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

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

AnalyDueDate: 03/15/2011

Batch: 1068010 OTHER mg/kg
SEQ Batch, Test: None All Tests: 1068010 DWEA,

PM, Quote: RW , 27038

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

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 MFDJ6-1-AA J1C080593-1-SAMP 03/08/2011 09:15		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
2 MFDJ6-1-AC-S J1C080593-1-MS 03/08/2011 09:15		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
3 MFDJ6-1-AD-X J1C080593-1-DUP 03/08/2011 09:15		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
4 MFDKA-1-AA J1C080593-2-SAMP 03/08/2011 09:35		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
5 MFDKD-1-AA J1C080593-3-SAMP 03/08/2011 09:50		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
6 MFDKE-1-AA J1C080593-4-SAMP 03/08/2011 10:30		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
7 MFDKH-1-AA J1C080593-5-SAMP 03/08/2011 10:55		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

3/16/2011 7:58:17 AM

Sample Preparation/Analysis

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

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

AnalyDueDate: 03/15/2011

Batch: 1068010 OTHER mg/kg PM, Quote: RW , 27038

SEQ Batch, Test: None

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

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:
8 MFDKL-1-AA										
J1C080593-6-SAMP										
03/08/2011 10:30		AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
9 MFDPR-1-AA-B										
J1C090000-10-BLK										
03/09/2011 05:59 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
10 MFDPR-1-AC-C										
J1C090000-10-LCS										
03/09/2011 05:59 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

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

MFDJ61AA-SAMP Constituent List:
  HEXCHROME   RDL:0.1548     mg/kg     LCL:80     UCL:120     RPD:20
MFDJ61AC-MS Constituent List:
  HEXCHROME   RDL:0.35       mg/kg     LCL:75     UCL:125     RPD:20
MFDPR1AA-BLK:
  HEXCHROME   RDL:0.1548     mg/kg     LCL:       UCL:        RPD:
MFDPR1AC-LCS:
  HEXCHROME   RDL:0.35       mg/kg     LCL:80     UCL:120     RPD:20

MFDJ61AA-SAMP Calc Info:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFDJ61AC-MS Calc Info:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MFDPR1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

3/16/2011 7:58:17 AM

Sample Preparation/Analysis

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

Balance Id:

Pipet #:

AnalyDueDate: 03/15/2011

Sep1 DT/Tm Tech:

Batch: 1068010 mg/kg
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

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:

MFDPR1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-13251-1

SDG Number: JP0106

Job Description: SAF# RC-107

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
3/18/2011 1:31 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
03/18/2011

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: 280-13251-1

SDG #: JP0106
SAF#: RC-107

Date SDG Closed: March 9, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1DX86	280-13251-1	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310
J1DX87	280-13251-2	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310
J1DX88	280-13251-3	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310
J1DX89	280-13251-4	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310
J1DX90	280-13251-5	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310
J1DX95	280-13251-6	6010/7471/300.0/353.2/9045/WTPH-D+/ WTPH-G/1664/8260A/8082/8310	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ NWTPH-Gx/9071B/8260B/8082/8310

The method substitutions noted above, as agreed to by all parties, have no technical impact on the data.

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 3/9/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.5 C and 3.5 C.

GC/MS VOLATILES - SW846 8260B
The laboratory noted that Naphthalene derivative TICs were reported for samples J1DX86 and J1DX90. It's the analyst's belief that these are most likely carryover from the previous samples. In both cases, the previous sample shows detections above the reporting limit for Naphthalene. These Naphthalene derivatives most likely had an elution time that would have been greater then the analytical run time causing them to carryover into the next sample analyzed. For samples J1DX86 and J1DX90, the Naphthalene derivatives are eluting at a much earlier time in the run then would be expected. Further confirmation of this is shown in the matrix spike and matrix spike duplicate performed on sample J1DX86 which do not show the naphthalene derivatives that were present in the sample J1DX86. The MS/MSD parent sample followed directly a sample, that as indicated above had a detection of naphthalene above the reporting limit, while the MS/MSD were analyzed after the parent sample. Reanalysis to confirm could not be performed due to insufficient sample volume remaining.

Surrogate Dibromofluoromethane failed the recovery criteria low for the samples presented in this report, as well as, for the MS/MSD performed on sample J1DX86. The laboratory noted that the pH of the samples were >10. High sample pH causes degradation of surrogate Dibromofluoromethane, as such, corrective action was not initiated and data are reported as is.

The MS/MSD performed on sample J1DX86 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged "T". In addition, RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GC VOLATILES - NWTPH-Gx - GRO
No anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, samples J1DX88, J1DX89 and J1DX90 had to be analyzed at dilutions, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilutions required.

Surrogate recoveries were not calculated for samples J1DX88, J1DX89 and J1DX90, because the extracts were diluted beyond the ability to reliably quantitate recoveries. The recoveries have been flagged with a "D".

The MS aliquot of the MS/MSD performed on sample J1DX86 exhibited a percent recovery outside the control limits for Aroclor 1260, and the associated sample result has been flagged "N". 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 - NWTPH-Dx - DRO
Surrogate o-Terphenyl was recovered outside the control limits, biased high, in samples J1DX89 and J1DX95. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

HPLC - SW846 8310 - PAHs
In some cases, the RPD between the primary and confirmation columns exceeded 40%. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-56629 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Low levels of Barium are present in the method blank associated with batch 280-56629. 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 Aluminum, Calcium, Iron and Manganese in the Matrix Spike performed on sample J1DX86; therefore, control limits are not applicable.

Silicon was recovered outside the control limits in the SW846 6010B Matrix Spike performed on sample J1DX86, 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 - MCAWW 353.2 - NITRATE+NITRITE as N
No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS
The Orthophosphate as P Matrix Spike performed on sample J1DX86 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 9071B - OIL & GREASE (HEM)

Low levels of Oil & Grease (HEM) are present in the method blank associated with batch 280-56973. Because the concentration in the method blank is not present at a level greater than the reporting limit, 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: 280-13251-1
Sdg Number: JP0106

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	Surrogate exceeds the control limit
GC 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.
GC Semi VOA		
	U	Analyzed for but not detected.
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	*	Surrogate exceeds the control limit
	D	The reported value is from a dilution.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

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
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
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.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
HPLC/IC		
	U	Analyzed for but not detected.
	X	More than 40% difference between columns, lower result reported.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Northwest - Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Gx	
Purge and Trap	TAL DEN		SW846 5030B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
pH	TAL DEN	SW846 9045C	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
HEM	TAL DEN	SW846 9071B	
Soxhlet Extraction	TAL DEN		SW846 3540C
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

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: 280-13251-1
Sdg Number: JP0106

Method	Analyst	Analyst ID
SW846 8260B	Ilczyszyn, Dennis P	DPI
NWTPH NWTPH-Gx	Gaskill, Daniel B	DBG
SW846 8082	Pavlakovich, Adam M	AMP
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 7471A	Stoltz, Katie	KS
MCAWW 353.2	Stosak, Lara E	LES
SW846 9045C	Taylor, Juli M	JMT
SW846 9056M	Phan, Thu L	TLP
SW846 9071B	Gheorghe, Philip A	PAG
ASTM D-2216	Berry III, Paul B	PBB
SW846 8310	Fiedler, Heather K	HKF

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-13251-1	J1DX86	Solid	03/08/2011 0915	03/09/2011 0930
280-13251-2	J1DX87	Solid	03/08/2011 0935	03/09/2011 0930
280-13251-3	J1DX88	Solid	03/08/2011 0950	03/09/2011 0930
280-13251-4	J1DX89	Solid	03/08/2011 1030	03/09/2011 0930
280-13251-5	J1DX90	Solid	03/08/2011 1055	03/09/2011 0930
280-13251-6	J1DX95	Solid	03/08/2011 1030	03/09/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3827.D
Dilution:	1.0			Initial Weight/Volume:	4.785 g
Date Analyzed:	03/10/2011 0535			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		25		5.9	22
Benzene		0.52	U	0.52	5.5
Bromodichloromethane		0.24	U T	0.24	5.5
Bromoform		0.25	U	0.25	5.5
Bromomethane		0.55	U	0.55	11
2-Butanone (MEK)		5.1	J	2.0	11
Carbon disulfide		2.2	J	0.46	5.5
Carbon tetrachloride		0.70	U	0.70	5.5
Chlorobenzene		0.60	U T	0.60	5.5
Dibromochloromethane		0.63	U	0.63	5.5
Chloroethane		0.98	U	0.98	11
Chloroform		0.32	U T	0.32	5.5
Chloromethane		0.85	U	0.85	11
1,1-Dichloroethane		0.23	U T	0.23	5.5
1,2-Dichloroethane		0.77	U	0.77	5.5
1,1-Dichloroethene		0.65	U T	0.65	5.5
1,2-Dichloroethene, Total		0.43	U	0.43	5.5
1,2-Dichloropropane		0.61	U	0.61	5.5
cis-1,3-Dichloropropene		1.4	U	1.4	5.5
trans-1,3-Dichloropropene		0.74	U	0.74	5.5
Ethylbenzene		0.74	U T	0.74	5.5
2-Hexanone		5.4	U	5.4	22
Methylene Chloride		1.1	J T	0.83	5.5
4-Methyl-2-pentanone (MIBK)		4.8	U	4.8	11
Styrene		1.1	J	0.70	5.5
1,1,2,2-Tetrachloroethane		0.67	U	0.67	5.5
Tetrachloroethene		0.65	U T	0.65	5.5
Toluene		0.76	U T	0.76	5.5
1,1,1-Trichloroethane		0.57	U	0.57	5.5
1,1,2-Trichloroethane		0.97	U	0.97	5.5
Trichloroethene		0.25	U T	0.25	5.5
Vinyl chloride		1.5	U	1.5	5.5
Xylenes, Total		0.67	U	0.67	5.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81		58 - 140
Toluene-d8 (Surr)	98		80 - 126
4-Bromofluorobenzene (Surr)	95		76 - 127
Dibromofluoromethane (Surr)	28	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122	Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612	Lab File ID:	G3827.D
Dilution:	1.0		Initial Weight/Volume:	4.785 g
Date Analyzed:	03/10/2011 0535		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500			

Tentatively Identified Compounds **Number TIC's Found:** 7

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	6.75	8.1	N J
107-87-9	2-Pentanone	8.45	2.8	J J N
90-12-0	Naphthalene, 1-methyl-	9.75	20	N J
1127-76-0	Naphthalene, 1-ethyl-	12.11	8.3	N J
95-63-6	1,2,4-Trimethylbenzene	12.54	0.65	J N J
575-37-1	Naphthalene, 1,7-dimethyl-	13.09	8.5	N J
581-40-8	Naphthalene, 2,3-dimethyl-	13.74	5.7	N J

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3822.D
Dilution:	1.0			Initial Weight/Volume:	4.844 g
Date Analyzed:	03/10/2011 0343			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		17	J	5.8	22
Benzene		0.51	U	0.51	5.4
Bromodichloromethane		0.24	U	0.24	5.4
Bromoform		0.25	U	0.25	5.4
Bromomethane		0.54	U	0.54	11
2-Butanone (MEK)		2.9	J	2.0	11
Carbon disulfide		1.2	J	0.46	5.4
Carbon tetrachloride		0.68	U	0.68	5.4
Chlorobenzene		0.59	U	0.59	5.4
Dibromochloromethane		0.62	U	0.62	5.4
Chloroethane		0.97	U	0.97	11
Chloroform		0.31	U	0.31	5.4
Chloromethane		0.83	U	0.83	11
1,1-Dichloroethane		0.23	U	0.23	5.4
1,2-Dichloroethane		0.76	U	0.76	5.4
1,1-Dichloroethene		0.64	U	0.64	5.4
1,2-Dichloroethene, Total		0.42	U	0.42	5.4
1,2-Dichloropropane		0.60	U	0.60	5.4
cis-1,3-Dichloropropene		1.4	U	1.4	5.4
trans-1,3-Dichloropropene		0.73	U	0.73	5.4
Ethylbenzene		0.73	U	0.73	5.4
2-Hexanone		5.3	U	5.3	22
Methylene Chloride		0.81	U	0.81	5.4
4-Methyl-2-pentanone (MIBK)		4.7	U	4.7	11
Styrene		0.89	J	0.68	5.4
1,1,2,2-Tetrachloroethane		0.66	U	0.66	5.4
Tetrachloroethene		0.64	U	0.64	5.4
Toluene		0.75	U	0.75	5.4
1,1,1-Trichloroethane		0.56	U	0.56	5.4
1,1,2-Trichloroethane		0.95	U	0.95	5.4
Trichloroethene		0.25	U	0.25	5.4
Vinyl chloride		1.5	U	1.5	5.4
Xylenes, Total		0.66	U	0.66	5.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		58 - 140
Toluene-d8 (Surr)	99		80 - 126
4-Bromofluorobenzene (Surr)	97		76 - 127
Dibromofluoromethane (Surr)	28	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3822.D
Dilution:	1.0			Initial Weight/Volume:	4.844 g
Date Analyzed:	03/10/2011 0343			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
541-05-9	Cyclotrisiloxane, hexamethyl-	9.60	6.4	N J

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3823.D
Dilution:	1.0			Initial Weight/Volume:	4.968 g
Date Analyzed:	03/10/2011 0405			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		47		5.7	21
Benzene		0.50	U	0.50	5.3
Bromodichloromethane		0.23	U	0.23	5.3
Bromoform		0.24	U	0.24	5.3
Bromomethane		0.53	U	0.53	11
2-Butanone (MEK)		8.6	J	1.9	11
Carbon disulfide		0.72	J	0.44	5.3
Carbon tetrachloride		0.67	U	0.67	5.3
Chlorobenzene		0.57	U	0.57	5.3
Dibromochloromethane		0.60	U	0.60	5.3
Chloroethane		0.94	U	0.94	11
Chloroform		0.31	U	0.31	5.3
Chloromethane		0.81	U	0.81	11
1,1-Dichloroethane		0.22	U	0.22	5.3
1,2-Dichloroethane		0.74	U	0.74	5.3
1,1-Dichloroethene		0.62	U	0.62	5.3
1,2-Dichloroethene, Total		0.41	U	0.41	5.3
1,2-Dichloropropane		0.58	U	0.58	5.3
cis-1,3-Dichloropropene		1.4	U	1.4	5.3
trans-1,3-Dichloropropene		0.71	U	0.71	5.3
Ethylbenzene		0.71	U	0.71	5.3
2-Hexanone		5.2	U	5.2	21
Methylene Chloride		0.92	J	0.79	5.3
4-Methyl-2-pentanone (MIBK)		4.6	U	4.6	11
Styrene		0.67	U	0.67	5.3
1,1,2,2-Tetrachloroethane		0.64	U	0.64	5.3
Tetrachloroethene		0.62	U	0.62	5.3
Toluene		0.73	U	0.73	5.3
1,1,1-Trichloroethane		0.55	U	0.55	5.3
1,1,2-Trichloroethane		0.93	U	0.93	5.3
Trichloroethene		0.24	U	0.24	5.3
Vinyl chloride		1.4	U	1.4	5.3
Xylenes, Total		1.4	J	0.64	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85		58 - 140
Toluene-d8 (Surr)	100		80 - 126
4-Bromofluorobenzene (Surr)	95		76 - 127
Dibromofluoromethane (Surr)	51	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122	Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612	Lab File ID:	G3823.D
Dilution:	1.0		Initial Weight/Volume:	4.968 g
Date Analyzed:	03/10/2011 0405		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500			

Tentatively Identified Compounds **Number TIC's Found:** 7

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
64-17-5	Ethanol	5.19	380	J J N
107-87-9	2-Pentanone	8.44	3.4	J J N
541-05-9	Cyclotrisiloxane, hexamethyl-	9.60	6.5	N J
136777-61-2	m-Xylene & p-Xylene	10.97	1.4	J J N
95-63-6	1,2,4-Trimethylbenzene	12.55	1.1	J J N
99-87-6	4-Isopropyltoluene	12.83	0.52	J J N
526-73-8	1,2,3-Trimethylbenzene	12.99	1.1	J J N

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3824.D
Dilution:	1.0			Initial Weight/Volume:	4.962 g
Date Analyzed:	03/10/2011 0427			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		38		5.6	21
Benzene		0.49	U	0.49	5.2
Bromodichloromethane		0.23	U	0.23	5.2
Bromoform		0.24	U	0.24	5.2
Bromomethane		0.52	U	0.52	10
2-Butanone (MEK)		9.5	J	1.9	10
Carbon disulfide		3.2	J	0.44	5.2
Carbon tetrachloride		0.66	U	0.66	5.2
Chlorobenzene		0.57	U	0.57	5.2
Dibromochloromethane		0.60	U	0.60	5.2
Chloroethane		0.93	U	0.93	10
Chloroform		0.30	U	0.30	5.2
Chloromethane		0.81	U	0.81	10
1,1-Dichloroethane		0.22	U	0.22	5.2
1,2-Dichloroethane		0.73	U	0.73	5.2
1,1-Dichloroethene		0.62	U	0.62	5.2
1,2-Dichloroethene, Total		0.41	U	0.41	5.2
1,2-Dichloropropane		0.58	U	0.58	5.2
cis-1,3-Dichloropropene		1.4	U	1.4	5.2
trans-1,3-Dichloropropene		0.70	U	0.70	5.2
Ethylbenzene		0.70	U	0.70	5.2
2-Hexanone		5.1	U	5.1	21
Methylene Chloride		0.79	U	0.79	5.2
4-Methyl-2-pentanone (MIBK)		4.6	U	4.6	10
Styrene		1.0	J	0.66	5.2
1,1,2,2-Tetrachloroethane		0.64	U	0.64	5.2
Tetrachloroethene		0.62	U	0.62	5.2
Toluene		0.72	U	0.72	5.2
1,1,1-Trichloroethane		0.54	U	0.54	5.2
1,1,2-Trichloroethane		0.92	U	0.92	5.2
Trichloroethene		0.24	U	0.24	5.2
Vinyl chloride		1.4	U	1.4	5.2
Xylenes, Total		0.64	U	0.64	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84		58 - 140
Toluene-d8 (Surr)	98		80 - 126
4-Bromofluorobenzene (Surr)	103		76 - 127
Dibromofluoromethane (Surr)	26	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3824.D
Dilution:	1.0			Initial Weight/Volume:	4.962 g
Date Analyzed:	03/10/2011 0427			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
2870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	14.15	19	N J
874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	14.70	28	N J
	Unknown	14.76	30	N J
	Unknown	15.03	23	N J
4912-92-9	1H-Indene, 2,3-dihydro-1,1-dimethyl-	15.37	33	N J
54120-62-6	Benzene, ethyl-1,2,4-trimethyl-	15.57	33	N J
91-20-3	Naphthalene	15.72	76	J N
	Unknown	15.85	18	N J
	Unknown	15.98	21	N J
	Unknown	16.35	23	N J

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3825.D
Dilution:	1.0			Initial Weight/Volume:	4.965 g
Date Analyzed:	03/10/2011 0450			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		43		5.7	21
Benzene		0.49	U	0.49	5.3
Bromodichloromethane		0.23	U	0.23	5.3
Bromoform		0.24	U	0.24	5.3
Bromomethane		0.53	U	0.53	11
2-Butanone (MEK)		9.3	J	1.9	11
Carbon disulfide		2.9	J	0.44	5.3
Carbon tetrachloride		0.66	U	0.66	5.3
Chlorobenzene		0.57	U	0.57	5.3
Dibromochloromethane		0.60	U	0.60	5.3
Chloroethane		0.94	U	0.94	11
Chloroform		0.30	U	0.30	5.3
Chloromethane		0.81	U	0.81	11
1,1-Dichloroethane		0.22	U	0.22	5.3
1,2-Dichloroethane		0.74	U	0.74	5.3
1,1-Dichloroethene		0.62	U	0.62	5.3
1,2-Dichloroethene, Total		0.41	U	0.41	5.3
1,2-Dichloropropane		0.58	U	0.58	5.3
cis-1,3-Dichloropropene		1.4	U	1.4	5.3
trans-1,3-Dichloropropene		0.70	U	0.70	5.3
Ethylbenzene		0.70	U	0.70	5.3
2-Hexanone		5.1	U	5.1	21
Methylene Chloride		0.81	J	0.79	5.3
4-Methyl-2-pentanone (MIBK)		4.6	U	4.6	11
Styrene		3.1	J	0.66	5.3
1,1,2,2-Tetrachloroethane		0.64	U	0.64	5.3
Tetrachloroethene		0.62	U	0.62	5.3
Toluene		0.73	U	0.73	5.3
1,1,1-Trichloroethane		0.55	U	0.55	5.3
1,1,2-Trichloroethane		0.93	U	0.93	5.3
Trichloroethene		0.24	U	0.24	5.3
Vinyl chloride		1.4	U	1.4	5.3
Xylenes, Total		0.64	U	0.64	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86		58 - 140
Toluene-d8 (Surr)	100		80 - 126
4-Bromofluorobenzene (Surr)	88		76 - 127
Dibromofluoromethane (Surr)	33	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122	Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612	Lab File ID:	G3825.D
Dilution:	1.0		Initial Weight/Volume:	4.965 g
Date Analyzed:	03/10/2011 0450		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500			

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
1066-40-6	Silanol, trimethyl-	6.74	9.5	N J
107-87-9	2-Pentanone	8.44	5.9	J N
475-03-6	Naphthalene, 1,2,3,4-tetrahydro-1,1,6-tr	9.03	16	N J
90-12-0	Naphthalene, 1-methyl-	9.73	73	N J
475-03-6	Naphthalene, 1,2,3,4-tetrahydro-1,1,6-tr	10.24	9.9	N J
	Unknown	10.90	8.3	N J
1127-76-0	Naphthalene, 1-ethyl-	12.12	18	N J
581-42-0	Naphthalene, 2,6-dimethyl-	12.46	22	N J
575-41-7	Naphthalene, 1,3-dimethyl-	13.09	19	N J
573-98-8	Naphthalene, 1,2-dimethyl-	13.74	8.0	N J

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122		Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612		Lab File ID:	G3826.D
Dilution:	1.0			Initial Weight/Volume:	5.136 g
Date Analyzed:	03/10/2011 0512			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		35		5.4	20
Benzene		0.47	U	0.47	5.1
Bromodichloromethane		0.22	U	0.22	5.1
Bromoform		0.23	U	0.23	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		7.8	J	1.8	10
Carbon disulfide		1.5	J	0.42	5.1
Carbon tetrachloride		0.64	U	0.64	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.58	U	0.58	5.1
Chloroethane		0.90	U	0.90	10
Chloroform		0.29	U	0.29	5.1
Chloromethane		0.78	U	0.78	10
1,1-Dichloroethane		0.21	U	0.21	5.1
1,2-Dichloroethane		0.71	U	0.71	5.1
1,1-Dichloroethene		0.60	U	0.60	5.1
1,2-Dichloroethene, Total		0.39	U	0.39	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.68	U	0.68	5.1
Ethylbenzene		0.68	U	0.68	5.1
2-Hexanone		4.9	U	4.9	20
Methylene Chloride		0.97	J	0.76	5.1
4-Methyl-2-pentanone (MIBK)		4.4	U	4.4	10
Styrene		0.69	J	0.64	5.1
1,1,2,2-Tetrachloroethane		0.62	U	0.62	5.1
Tetrachloroethene		0.60	U	0.60	5.1
Toluene		0.70	U	0.70	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.89	U	0.89	5.1
Trichloroethene		0.23	U	0.23	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.62	U	0.62	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		58 - 140
Toluene-d8 (Surr)	108		80 - 126
4-Bromofluorobenzene (Surr)	112		76 - 127
Dibromofluoromethane (Surr)	44	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 280-57122	Instrument ID:	MSV_G
Preparation:	5030B	Prep Batch: 280-56612	Lab File ID:	G3826.D
Dilution:	1.0		Initial Weight/Volume:	5.136 g
Date Analyzed:	03/10/2011 0512		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2011 1500			

Tentatively Identified Compounds **Number TIC's Found:** **9**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
60-29-7	Ethyl ether	5.37	0.58	J B J N
	Unknown	6.74	8.4	N J
107-87-9	2-Pentanone	8.44	4.3	J J N
	Unknown	14.60	7.0	N J
535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	14.69	5.9	N J
	Unknown	15.03	5.3	N J
	Unknown	15.41	7.3	N J
54120-62-6	Benzene, ethyl-1,2,4-trimethyl-	15.57	5.2	N J
91-20-3	Naphthalene	15.72	26	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323		Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042		Initial Weight/Volume:	10.43 g
Dilution:	1.0			Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 1607			Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		370	J	330	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	97		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323		Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042		Initial Weight/Volume:	10.09 g
Dilution:	1.0			Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 1800			Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		500	J	340	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	95		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323		Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042		Initial Weight/Volume:	10.49 g
Dilution:	1.0			Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 1915			Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		1700		330	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	100		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323		Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042		Initial Weight/Volume:	10.49 g
Dilution:	1.0			Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 1953			Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		440	J	320	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	93		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323	Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042	Initial Weight/Volume:	10.06 g
Dilution:	1.0		Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 2030		Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155		Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		560	J	340	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	95		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid

% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

NWTPH-Gx Northwest - Volatile Petroleum Products (GC)

Method:	NWTPH-Gx	Analysis Batch: 280-57323		Instrument ID:	GCV_L
Preparation:	5030B	Prep Batch: 280-57042		Initial Weight/Volume:	10.45 g
Dilution:	1.0			Final Weight/Volume:	500 mL
Date Analyzed:	03/13/2011 2108			Injection Volume:	5 mL
Date Prepared:	03/11/2011 1155			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline		520	J	320	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	90		77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid

% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57288		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	03/11/2011 0110			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		83	N	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	69		59 - 130
Tetrachloro-m-xylene	89		53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid

% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57288		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	03/11/2011 0214			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		45		2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	73		59 - 130
Tetrachloro-m-xylene	95		53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57291		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.3 g
Dilution:	5.0			Final Weight/Volume:	5000 uL
Date Analyzed:	03/12/2011 1046			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		14	U D	14	52
Aroclor 1221		42	U D	42	86
Aroclor 1232		10	U D	10	52
Aroclor 1242		24	U D	24	52
Aroclor 1248		24	U D	24	52
Aroclor 1254		14	U D	14	52
Aroclor 1260		280	D	14	52

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57291		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.6 g
Dilution:	10			Final Weight/Volume:	5000 uL
Date Analyzed:	03/12/2011 1108			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		28	U D	28	100
Aroclor 1221		82	U D	82	170
Aroclor 1232		20	U D	20	100
Aroclor 1242		47	U D	47	100
Aroclor 1248		47	U D	47	100
Aroclor 1254		26	U D	26	100
Aroclor 1260		920	D	26	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57288		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	03/11/2011 0318			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		120		2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	70		59 - 130
Tetrachloro-m-xylene	89		53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-57291		Instrument ID:	GCS_P3
Preparation:	3550C	Prep Batch: 280-56609		Initial Weight/Volume:	30.2 g
Dilution:	10			Final Weight/Volume:	5000 uL
Date Analyzed:	03/12/2011 1129			Injection Volume:	1 uL
Date Prepared:	03/09/2011 2327			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		29	U D	29	100
Aroclor 1221		83	U D	83	170
Aroclor 1232		21	U D	21	100
Aroclor 1242		48	U D	48	100
Aroclor 1248		48	U D	48	100
Aroclor 1254		27	U D	27	100
Aroclor 1260		980	D	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid % Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051		Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610		Lab File ID:	072B2501.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Date Analyzed:	03/10/2011 2356			Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		98000		1000	4100
C10-C28		61000		690	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	72		49 - 115

Job Number: 280-13251-1
Sdg Number: JP0106

Client: Washington Closure Hanford

Client Sample ID: **J1DX87**

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

Lab Sample ID: 280-13251-2
Client Matrix: Solid

% Moisture: 4.8

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051		Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610		Lab File ID:	075B2801.D
Dilution:	1.0			Initial Weight/Volume:	30.4 g
Date Analyzed:	03/11/2011 0135			Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000			Injection Volume:	1 uL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36	54000		1000	4100
C10-C28	35000		700	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	66		49 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051	Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610	Lab File ID:	076B2901.D
Dilution:	1.0		Initial Weight/Volume:	30.5 g
Date Analyzed:	03/11/2011 0208		Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000		Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		140000		1000	4100
C10-C28		66000		700	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	72		49 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid

% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051		Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610		Lab File ID:	077B3001.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Date Analyzed:	03/11/2011 0241			Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		780000		1000	4100
C10-C28		570000		690	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	128	*	49 - 115

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051		Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610		Lab File ID:	078B3101.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Date Analyzed:	03/11/2011 0314			Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		180000		990	4000
C10-C28		100000		670	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	63		49 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Method:	NWTPH-Dx	Analysis Batch: 280-57051	Instrument ID:	GCS_U2
Preparation:	3550C	Prep Batch: 280-56610	Lab File ID:	079B3201.D
Dilution:	1.0		Initial Weight/Volume:	30.1 g
Date Analyzed:	03/11/2011 0347		Final Weight/Volume:	1000 uL
Date Prepared:	03/10/2011 0000		Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		760000		1000	4100
C10-C28		560000		700	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	128	*	49 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1427			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.4	U	9.4	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.7	U	6.7	16
Benzo[b]fluoranthene		4.4	U	4.4	16
Benzo[g,h,i]perylene		7.5	U	7.5	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		5.1	U	5.1	42
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		20	J	14	42
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		13	U	13	31
Naphthalene		13	U	13	100
Phenanthrene		13	J X	13	42
Pyrene		13	U	13	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	95		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1559			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.4	U	9.4	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.7	U	6.7	16
Benzo[b]fluoranthene		4.4	U	4.4	16
Benzo[g,h,i]perylene		7.5	U	7.5	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		11	J X	5.1	42
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		26	J	14	42
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		13	U	13	31
Naphthalene		13	U	13	100
Phenanthrene		16	J	13	42
Pyrene		13	U	13	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	93		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1629			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.3	U	9.3	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		82	X	6.6	16
Benzo[b]fluoranthene		26	X	4.3	16
Benzo[g,h,i]perylene		7.4	U	7.4	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		45		5.0	41
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		81	X	13	41
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		30	J	12	31
Naphthalene		12	U	12	100
Phenanthrene		50		12	41
Pyrene		120		12	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	93		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1700			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.3	U	9.3	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.6	U	6.6	16
Benzo[b]fluoranthene		74	X	4.3	16
Benzo[g,h,i]perylene		7.5	U	7.5	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		42	X	5.0	41
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		13	U	13	41
Fluorene		130	X	5.5	31
Indeno[1,2,3-cd]pyrene		12	U	12	31
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	41
Pyrene		670	X	12	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	109		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1730			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.2	U	9.2	100
Anthracene		3.1	U	3.1	21
Benzo[a]anthracene		3.3	U	3.3	15
Benzo[a]pyrene		6.6	U	6.6	15
Benzo[b]fluoranthene		4.3	U	4.3	15
Benzo[g,h,i]perylene		7.4	U	7.4	31
Benzo[k]fluoranthene		4.0	U	4.0	15
Chrysene		29	J	5.0	41
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		31	J	13	41
Fluorene		5.4	U	5.4	31
Indeno[1,2,3-cd]pyrene		12	U	12	31
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	41
Pyrene		12	U	12	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	98		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

8310 PAHs (HPLC)

Method:	8310	Analysis Batch: 280-56984		Instrument ID:	CHHPLC_G
Preparation:	3550C	Prep Batch: 280-56619		Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Date Analyzed:	03/11/2011 1801			Injection Volume:	20 uL
Date Prepared:	03/10/2011 1005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.3	U	9.3	100
Anthracene		3.2	U	3.2	21
Benzo[a]anthracene		3.3	U	3.3	16
Benzo[a]pyrene		6.6	U	6.6	16
Benzo[b]fluoranthene		88	X	4.3	16
Benzo[g,h,i]perylene		7.4	U	7.4	31
Benzo[k]fluoranthene		4.1	U	4.1	16
Chrysene		50	X	5.0	41
Dibenzo(a,h)anthracene		11	U	11	31
Fluoranthene		13	U	13	41
Fluorene		5.5	U	5.5	31
Indeno[1,2,3-cd]pyrene		12	U	12	31
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	41
Pyrene		610	X	12	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	106		72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57255		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	03/11/2011 1225			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.40	U	0.40	0.63
Arsenic		10.3		0.70	1.1
Barium		104		0.080	0.53
Beryllium		0.13	B	0.035	0.21
Boron		7.0		1.0	2.1
Cadmium		0.13	B	0.043	0.21
Calcium		93800	X	14.9	52.9
Chromium		13.8	X	0.061	0.21
Cobalt		5.9	X	0.11	1.1
Copper		21.9		0.23	1.1
Iron		17800		4.0	5.3
Lead		8.9		0.29	0.53
Magnesium		5000	X	3.9	21.1
Manganese		234		0.11	1.1
Molybdenum		0.59	B	0.27	2.1
Nickel		11.3	X	0.13	4.2
Potassium		1490		43.4	317
Selenium		0.91	U	0.91	1.1
Silicon		77.7	N	6.0	10.6
Silver		0.17	U	0.17	0.21
Vanadium		47.9		0.099	2.1
Zinc		70.5	X	0.42	1.1

Method:	6010B	Analysis Batch: 280-57452		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	25A1031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	03/14/2011 1512			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11000		1.6	5.3
Sodium		921		62.4	127

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-56948		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56535		Lab File ID:	110310AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	03/10/2011 2349			Final Weight/Volume:	50 mL
Date Prepared:	03/10/2011 1127				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.057		0.0057	0.017

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57255		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Date Analyzed:	03/11/2011 1244			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.9		0.36	0.57
Arsenic		36.1		0.62	0.95
Barium		106		0.072	0.47
Beryllium		0.085	B	0.031	0.19
Boron		9.0		0.93	1.9
Cadmium		4.3		0.039	0.19
Calcium		96300	X	13.3	47.3
Chromium		19.1	X	0.055	0.19
Cobalt		7.5	X	0.095	0.95
Copper		39.3		0.21	0.95
Iron		17800		3.6	4.7
Lead		8.7		0.26	0.47
Magnesium		4720	X	3.5	18.9
Manganese		252		0.095	0.95
Molybdenum		1.0	B	0.25	1.9
Nickel		11.8	X	0.12	3.8
Potassium		1190		38.8	284
Selenium		0.93	B	0.81	0.95
Silicon		68.7		5.4	9.5
Silver		0.15	U	0.15	0.19
Vanadium		48.5		0.089	1.9
Zinc		151	X	0.38	0.95

Method:	6010B	Analysis Batch: 280-57452		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	25A1031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Date Analyzed:	03/14/2011 1530			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10300		1.5	4.7
Sodium		774		55.8	114

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-56948		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56535		Lab File ID:	110310AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Date Analyzed:	03/10/2011 2352			Final Weight/Volume:	50 mL
Date Prepared:	03/10/2011 1127				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.34		0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57255		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	03/11/2011 1247			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.9		0.39	0.61
Arsenic		35.0		0.67	1.0
Barium		204		0.078	0.51
Beryllium		0.15	B	0.034	0.20
Boron		13.8		1.0	2.0
Cadmium		0.50		0.042	0.20
Calcium		84500	X	14.4	51.0
Chromium		18.2	X	0.059	0.20
Cobalt		7.9	X	0.10	1.0
Copper		46.6		0.22	1.0
Iron		18700		3.9	5.1
Lead		20.5		0.28	0.51
Magnesium		4660	X	3.8	20.4
Manganese		266		0.10	1.0
Molybdenum		1.5	B	0.27	2.0
Nickel		12.8	X	0.13	4.1
Potassium		1470		41.8	306
Selenium		0.88	U	0.88	1.0
Silicon		70.9		5.8	10.2
Silver		0.16	U	0.16	0.20
Vanadium		52.1		0.096	2.0
Zinc		180	X	0.41	1.0

Method:	6010B	Analysis Batch: 280-57452		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	25A1031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	03/14/2011 1533			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10600		1.6	5.1
Sodium		1310		60.2	122

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-56948		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56535		Lab File ID:	110310AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	03/10/2011 2354			Final Weight/Volume:	50 mL
Date Prepared:	03/10/2011 1127				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.73		0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57255		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Date Analyzed:	03/11/2011 1249			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		2.3		0.36	0.57
Arsenic		46.4		0.63	0.95
Barium		103		0.072	0.48
Beryllium		0.077	B	0.031	0.19
Boron		5.6		0.93	1.9
Cadmium		0.35		0.039	0.19
Calcium		91400	X	13.4	47.7
Chromium		16.2	X	0.055	0.19
Cobalt		8.4	X	0.095	0.95
Copper		46.8		0.21	0.95
Iron		18300		3.6	4.8
Lead		17.1		0.26	0.48
Magnesium		4990	X	3.5	19.1
Manganese		265		0.095	0.95
Molybdenum		1.1	B	0.25	1.9
Nickel		13.3	X	0.12	3.8
Potassium		1370		39.1	286
Selenium		1.1		0.82	0.95
Silicon		56.8		5.4	9.5
Silver		0.15	U	0.15	0.19
Vanadium		49.2		0.090	1.9
Zinc		200	X	0.38	0.95

Method:	6010B	Analysis Batch: 280-57452		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	25A1031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Date Analyzed:	03/14/2011 1535			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10100		1.5	4.8
Sodium		991		56.2	114

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-56948		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56535		Lab File ID:	110310AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.67 g
Date Analyzed:	03/10/2011 2356			Final Weight/Volume:	50 mL
Date Prepared:	03/10/2011 1127				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.099		0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-57255		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	03/11/2011 1252			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		3.3		0.38	0.60
Arsenic		56.2		0.66	1.0
Barium		112		0.076	0.50
Beryllium		0.10	B	0.033	0.20
Boron		5.6		0.98	2.0
Cadmium		0.24		0.041	0.20
Calcium		104000	X	14.2	50.2
Chromium		15.7	X	0.058	0.20
Cobalt		8.8	X	0.10	1.0
Copper		50.6		0.22	1.0
Iron		18200		3.8	5.0
Lead		12.4		0.27	0.50
Magnesium		4760	X	3.7	20.1
Manganese		266		0.10	1.0
Molybdenum		1.2	B	0.26	2.0
Nickel		11.6	X	0.12	4.0
Potassium		1320		41.2	301
Selenium		0.86	U	0.86	1.0
Silicon		76.4		5.7	10.0
Silver		0.16	U	0.16	0.20
Vanadium		47.7		0.094	2.0
Zinc		203	X	0.40	1.0

Method:	6010B	Analysis Batch: 280-57452		Instrument ID:	MT_025
Preparation:	3050B	Prep Batch: 280-56629		Lab File ID:	25A1031411.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	03/14/2011 1537			Final Weight/Volume:	100 mL
Date Prepared:	03/10/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10600		1.6	5.0
Sodium		1210		59.2	121

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-56948		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-56535		Lab File ID:	110310AD.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	03/11/2011 0008			Final Weight/Volume:	50 mL
Date Prepared:	03/10/2011 1127				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.032		0.0056	0.017

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 03/11/2011 1254
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57255
Prep Batch: 280-56629

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 1.19 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		2.8		0.33	0.52
Arsenic		45.4		0.58	0.87
Barium		97.0		0.066	0.44
Beryllium		0.082	B	0.029	0.17
Boron		8.2		0.85	1.7
Cadmium		0.30		0.036	0.17
Calcium		91500	X	12.3	43.6
Chromium		15.7	X	0.051	0.17
Cobalt		8.1	X	0.087	0.87
Copper		44.3		0.19	0.87
Iron		17900		3.3	4.4
Lead		15.5		0.24	0.44
Magnesium		4900	X	3.2	17.4
Manganese		267		0.087	0.87
Molybdenum		1.2	B	0.23	1.7
Nickel		12.4	X	0.11	3.5
Potassium		1240		35.7	262
Selenium		0.75	U	0.75	0.87
Silicon		70.3		4.9	8.7
Silver		0.14	U	0.14	0.17
Vanadium		48.3		0.082	1.7
Zinc		189	X	0.35	0.87

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 03/14/2011 1540
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57452
Prep Batch: 280-56629

Instrument ID: MT_025
Lab File ID: 25A1031411.asc
Initial Weight/Volume: 1.19 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9620		1.4	4.4
Sodium		898		51.4	105

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 03/11/2011 0010
Date Prepared: 03/10/2011 1127

Analysis Batch: 280-56948
Prep Batch: 280-56535

Instrument ID: MT_033
Lab File ID: 110310AD.txt
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.072		0.0056	0.017

General Chemistry

Client Sample ID: **J1DX86**

Lab Sample ID: 280-13251-1
Client Matrix: Solid
% Moisture: 5.4
Date Sampled: 03/08/2011 0915
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	13.0		mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1131						DryWt Corrected: Y
Chloride-Soluble	17.8		mg/Kg	2.0	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Nitrate as N-Soluble	13.0		mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Nitrite as N-Soluble	0.80	B	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U N	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Sulfate-Soluble	98.9		mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Fluoride-Soluble	17.3		mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1236						DryWt Corrected: Y
Oil & Grease (HEM)	272	B C	mg/Kg	88.8	523	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	12.3		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1007						DryWt Corrected: N
Percent Moisture	5.4		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1249						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1DX87**

Lab Sample ID: 280-13251-2
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0935
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	24.8		mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1211						DryWt Corrected: Y
Chloride-Soluble	196		mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Nitrate as N-Soluble	17.4		mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Bromide-Soluble	0.77	B	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Nitrite as N-Soluble	1.3	B	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Sulfate-Soluble	71.4		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Fluoride-Soluble	18.1		mg/Kg	0.83	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1508						DryWt Corrected: Y
Oil & Grease (HEM)	198	B C	mg/Kg	88.4	521	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	12.4		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1011						DryWt Corrected: N
Percent Moisture	4.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1249						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1DX88**

Lab Sample ID: 280-13251-3
Client Matrix: Solid
% Moisture: 4.8

Date Sampled: 03/08/2011 0950
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.4		mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1212						DryWt Corrected: Y
Chloride-Soluble	12.3		mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Nitrate as N-Soluble	1.7	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Nitrite as N-Soluble	0.39	B	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Sulfate-Soluble	237		mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Fluoride-Soluble	8.7		mg/Kg	0.86	5.3	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1525						DryWt Corrected: Y
Oil & Grease (HEM)	388	B C	mg/Kg	88.8	524	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	11.9		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1013						DryWt Corrected: N
Percent Moisture	4.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1249						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1DX89**

Lab Sample ID: 280-13251-4
Client Matrix: Solid
% Moisture: 3.8

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.6		mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1214						DryWt Corrected: Y
Chloride-Soluble	13.4		mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Nitrate as N-Soluble	1.9	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Bromide-Soluble	0.54	B	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Nitrite as N-Soluble	0.41	B	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Sulfate-Soluble	73.8		mg/Kg	1.8	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Fluoride-Soluble	11.7		mg/Kg	0.85	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1542						DryWt Corrected: Y
Oil & Grease (HEM)	1290		mg/Kg	88.1	520	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	12.4		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1015						DryWt Corrected: N
Percent Moisture	3.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1251						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1DX90**

Lab Sample ID: 280-13251-5
Client Matrix: Solid
% Moisture: 4.2

Date Sampled: 03/08/2011 1055
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	5.1		mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1215						DryWt Corrected: Y
Chloride-Soluble	14.2		mg/Kg	2.0	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Nitrate as N-Soluble	3.4		mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Nitrite as N-Soluble	0.92	B	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Sulfate-Soluble	80.7		mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Fluoride-Soluble	10.7		mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1600						DryWt Corrected: Y
Oil & Grease (HEM)	537	C	mg/Kg	87.6	516	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	12.5		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1017						DryWt Corrected: N
Percent Moisture	4.2		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1251						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1DX95**

Lab Sample ID: 280-13251-6
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 03/08/2011 1030
Date Received: 03/09/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.4		mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-57151	Date Analyzed: 03/11/2011 1217						DryWt Corrected: Y
Chloride-Soluble	11.5		mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Nitrate as N-Soluble	1.6	B	mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Bromide-Soluble	0.52	B	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Nitrite as N-Soluble	0.37	B	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-57081	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Sulfate-Soluble	75.1		mg/Kg	1.8	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Fluoride-Soluble	11.3		mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-57082	Date Analyzed: 03/10/2011 1617						DryWt Corrected: Y
Oil & Grease (HEM)	1260		mg/Kg	88.0	519	1.0	9071B
Analysis Batch: 280-57065	Date Analyzed: 03/11/2011 1338						DryWt Corrected: Y
Prep Batch: 280-56973	Date Prepared: 03/11/2011 0923						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	12.4		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-56685	Date Analyzed: 03/10/2011 1019						DryWt Corrected: N
Percent Moisture	3.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-56493	Date Analyzed: 03/09/2011 1251						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-56612					
LCS 280-56612/2-A	Lab Control Sample	T	Solid	5030B	
LCSD 280-56612/3-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 280-56612/1-A	Method Blank	T	Solid	5030B	
280-13251-1	J1DX86	T	Solid	5030B	
280-13251-1MS	Matrix Spike	T	Solid	5030B	
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
280-13251-2	J1DX87	T	Solid	5030B	
280-13251-3	J1DX88	T	Solid	5030B	
280-13251-4	J1DX89	T	Solid	5030B	
280-13251-5	J1DX90	T	Solid	5030B	
280-13251-6	J1DX95	T	Solid	5030B	
Analysis Batch:280-57122					
LCS 280-56612/2-A	Lab Control Sample	T	Solid	8260B	280-56612
LCSD 280-56612/3-A	Lab Control Sample Duplicate	T	Solid	8260B	280-56612
MB 280-56612/1-A	Method Blank	T	Solid	8260B	280-56612
280-13251-1	J1DX86	T	Solid	8260B	280-56612
280-13251-1MS	Matrix Spike	T	Solid	8260B	280-56612
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	8260B	280-56612
280-13251-2	J1DX87	T	Solid	8260B	280-56612
280-13251-3	J1DX88	T	Solid	8260B	280-56612
280-13251-4	J1DX89	T	Solid	8260B	280-56612
280-13251-5	J1DX90	T	Solid	8260B	280-56612
280-13251-6	J1DX95	T	Solid	8260B	280-56612

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 280-57042					
LCS 280-57042/1-A	Lab Control Sample	T	Solid	5030B	
LCSD 280-57042/2-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 280-57042/3-A	Method Blank	T	Solid	5030B	
280-13251-1	J1DX86	T	Solid	5030B	
280-13251-1MS	Matrix Spike	T	Solid	5030B	
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
280-13251-2	J1DX87	T	Solid	5030B	
280-13251-3	J1DX88	T	Solid	5030B	
280-13251-4	J1DX89	T	Solid	5030B	
280-13251-5	J1DX90	T	Solid	5030B	
280-13251-6	J1DX95	T	Solid	5030B	
Analysis Batch:280-57323					
LCS 280-57042/1-A	Lab Control Sample	T	Solid	NWTPH-Gx	280-57042
LCSD 280-57042/2-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Gx	280-57042
MB 280-57042/3-A	Method Blank	T	Solid	NWTPH-Gx	280-57042
280-13251-1	J1DX86	T	Solid	NWTPH-Gx	280-57042
280-13251-1MS	Matrix Spike	T	Solid	NWTPH-Gx	280-57042
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Gx	280-57042
280-13251-2	J1DX87	T	Solid	NWTPH-Gx	280-57042
280-13251-3	J1DX88	T	Solid	NWTPH-Gx	280-57042
280-13251-4	J1DX89	T	Solid	NWTPH-Gx	280-57042
280-13251-5	J1DX90	T	Solid	NWTPH-Gx	280-57042
280-13251-6	J1DX95	T	Solid	NWTPH-Gx	280-57042

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-56609					
LCS 280-56609/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-56609/1-A	Method Blank	T	Solid	3550C	
280-13251-1	J1DX86	T	Solid	3550C	
280-13251-1MS	Matrix Spike	T	Solid	3550C	
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-13251-2	J1DX87	T	Solid	3550C	
280-13251-3	J1DX88	T	Solid	3550C	
280-13251-4	J1DX89	T	Solid	3550C	
280-13251-5	J1DX90	T	Solid	3550C	
280-13251-6	J1DX95	T	Solid	3550C	
Prep Batch: 280-56610					
LCS 280-56610/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-56610/1-A	Method Blank	T	Solid	3550C	
280-13251-1	J1DX86	T	Solid	3550C	
280-13251-1MS	Matrix Spike	T	Solid	3550C	
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-13251-2	J1DX87	T	Solid	3550C	
280-13251-3	J1DX88	T	Solid	3550C	
280-13251-4	J1DX89	T	Solid	3550C	
280-13251-5	J1DX90	T	Solid	3550C	
280-13251-6	J1DX95	T	Solid	3550C	
Analysis Batch:280-57051					
LCS 280-56610/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-56610
MB 280-56610/1-A	Method Blank	T	Solid	NWTPH-Dx	280-56610
280-13251-1	J1DX86	T	Solid	NWTPH-Dx	280-56610
280-13251-1MS	Matrix Spike	T	Solid	NWTPH-Dx	280-56610
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-56610
280-13251-2	J1DX87	T	Solid	NWTPH-Dx	280-56610
280-13251-3	J1DX88	T	Solid	NWTPH-Dx	280-56610
280-13251-4	J1DX89	T	Solid	NWTPH-Dx	280-56610
280-13251-5	J1DX90	T	Solid	NWTPH-Dx	280-56610
280-13251-6	J1DX95	T	Solid	NWTPH-Dx	280-56610
Analysis Batch:280-57288					
LCS 280-56609/2-A	Lab Control Sample	T	Solid	8082	280-56609
MB 280-56609/1-A	Method Blank	T	Solid	8082	280-56609
280-13251-1	J1DX86	T	Solid	8082	280-56609
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	8082	280-56609
280-13251-2	J1DX87	T	Solid	8082	280-56609
280-13251-5	J1DX90	T	Solid	8082	280-56609

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-57289					
LCS 280-56609/2-A	Lab Control Sample	T	Solid	8082	280-56609
MB 280-56609/1-A	Method Blank	T	Solid	8082	280-56609
280-13251-1	J1DX86	T	Solid	8082	280-56609
280-13251-2	J1DX87	T	Solid	8082	280-56609
280-13251-5	J1DX90	T	Solid	8082	280-56609
Analysis Batch:280-57291					
280-13251-1MS	Matrix Spike	T	Solid	8082	280-56609
280-13251-3	J1DX88	T	Solid	8082	280-56609
280-13251-4	J1DX89	T	Solid	8082	280-56609
280-13251-6	J1DX95	T	Solid	8082	280-56609
Analysis Batch:280-57296					
280-13251-3	J1DX88	T	Solid	8082	280-56609
280-13251-4	J1DX89	T	Solid	8082	280-56609
280-13251-6	J1DX95	T	Solid	8082	280-56609

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-56535					
LCS 280-56535/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-56535/1-A	Method Blank	T	Solid	7471A	
280-13251-1	J1DX86	T	Solid	7471A	
280-13251-2	J1DX87	T	Solid	7471A	
280-13251-3	J1DX88	T	Solid	7471A	
280-13251-4	J1DX89	T	Solid	7471A	
280-13251-4DU	Duplicate	T	Solid	7471A	
280-13251-4MS	Matrix Spike	T	Solid	7471A	
280-13251-5	J1DX90	T	Solid	7471A	
280-13251-6	J1DX95	T	Solid	7471A	
Prep Batch: 280-56629					
LCS 280-56629/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-56629/1-A	Method Blank	T	Solid	3050B	
280-13251-1	J1DX86	T	Solid	3050B	
280-13251-1DU	Duplicate	T	Solid	3050B	
280-13251-1MS	Matrix Spike	T	Solid	3050B	
280-13251-2	J1DX87	T	Solid	3050B	
280-13251-3	J1DX88	T	Solid	3050B	
280-13251-4	J1DX89	T	Solid	3050B	
280-13251-5	J1DX90	T	Solid	3050B	
280-13251-6	J1DX95	T	Solid	3050B	
Analysis Batch:280-56948					
LCS 280-56535/2-A	Lab Control Sample	T	Solid	7471A	280-56535
MB 280-56535/1-A	Method Blank	T	Solid	7471A	280-56535
280-13251-1	J1DX86	T	Solid	7471A	280-56535
280-13251-2	J1DX87	T	Solid	7471A	280-56535
280-13251-3	J1DX88	T	Solid	7471A	280-56535
280-13251-4	J1DX89	T	Solid	7471A	280-56535
280-13251-4DU	Duplicate	T	Solid	7471A	280-56535
280-13251-4MS	Matrix Spike	T	Solid	7471A	280-56535
280-13251-5	J1DX90	T	Solid	7471A	280-56535
280-13251-6	J1DX95	T	Solid	7471A	280-56535

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-57255					
LCS 280-56629/2-A	Lab Control Sample	T	Solid	6010B	280-56629
MB 280-56629/1-A	Method Blank	T	Solid	6010B	280-56629
280-13251-1	J1DX86	T	Solid	6010B	280-56629
280-13251-1DU	Duplicate	T	Solid	6010B	280-56629
280-13251-1MS	Matrix Spike	T	Solid	6010B	280-56629
280-13251-2	J1DX87	T	Solid	6010B	280-56629
280-13251-3	J1DX88	T	Solid	6010B	280-56629
280-13251-4	J1DX89	T	Solid	6010B	280-56629
280-13251-5	J1DX90	T	Solid	6010B	280-56629
280-13251-6	J1DX95	T	Solid	6010B	280-56629
Analysis Batch:280-57452					
LCS 280-56629/2-A	Lab Control Sample	T	Solid	6010B	280-56629
MB 280-56629/1-A	Method Blank	T	Solid	6010B	280-56629
280-13251-1	J1DX86	T	Solid	6010B	280-56629
280-13251-1DU	Duplicate	T	Solid	6010B	280-56629
280-13251-1MS	Matrix Spike	T	Solid	6010B	280-56629
280-13251-2	J1DX87	T	Solid	6010B	280-56629
280-13251-3	J1DX88	T	Solid	6010B	280-56629
280-13251-4	J1DX89	T	Solid	6010B	280-56629
280-13251-5	J1DX90	T	Solid	6010B	280-56629
280-13251-6	J1DX95	T	Solid	6010B	280-56629

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-56493					
280-13251-1	J1DX86	T	Solid	D-2216	
280-13251-1DU	Duplicate	T	Solid	D-2216	
280-13251-2	J1DX87	T	Solid	D-2216	
280-13251-3	J1DX88	T	Solid	D-2216	
280-13251-4	J1DX89	T	Solid	D-2216	
280-13251-5	J1DX90	T	Solid	D-2216	
280-13251-6	J1DX95	T	Solid	D-2216	
Prep Batch: 280-56630					
280-13251-1	J1DX86	S	Solid	DI Leach	
280-13251-1DU	Duplicate	S	Solid	DI Leach	
280-13251-2	J1DX87	S	Solid	DI Leach	
280-13251-3	J1DX88	S	Solid	DI Leach	
280-13251-4	J1DX89	S	Solid	DI Leach	
280-13251-5	J1DX90	S	Solid	DI Leach	
280-13251-6	J1DX95	S	Solid	DI Leach	
Prep Batch: 280-56651					
LCS 280-56651/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-56651/1-A	Method Blank	S	Solid	DI Leach	
280-13251-1	J1DX86	S	Solid	DI Leach	
280-13251-1DU	Duplicate	S	Solid	DI Leach	
280-13251-1MS	Matrix Spike	S	Solid	DI Leach	
280-13251-2	J1DX87	S	Solid	DI Leach	
280-13251-3	J1DX88	S	Solid	DI Leach	
280-13251-4	J1DX89	S	Solid	DI Leach	
280-13251-5	J1DX90	S	Solid	DI Leach	
280-13251-6	J1DX95	S	Solid	DI Leach	
Analysis Batch:280-56685					
LCS 280-56685/4	Lab Control Sample	T	Water	9045C	
LCSD 280-56685/5	Lab Control Sample Duplicate	T	Water	9045C	
280-13251-1	J1DX86	S	Solid	9045C	
280-13251-1DU	Duplicate	S	Solid	9045C	
280-13251-2	J1DX87	S	Solid	9045C	
280-13251-3	J1DX88	S	Solid	9045C	
280-13251-4	J1DX89	S	Solid	9045C	
280-13251-5	J1DX90	S	Solid	9045C	
280-13251-6	J1DX95	S	Solid	9045C	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-56973					
LCS 280-56973/2-A	Lab Control Sample	T	Solid	3540C	
MB 280-56973/1-A	Method Blank	T	Solid	3540C	
280-13251-1	J1DX86	T	Solid	3540C	
280-13251-1DU	Duplicate	T	Solid	3540C	
280-13251-1MS	Matrix Spike	T	Solid	3540C	
280-13251-2	J1DX87	T	Solid	3540C	
280-13251-3	J1DX88	T	Solid	3540C	
280-13251-4	J1DX89	T	Solid	3540C	
280-13251-5	J1DX90	T	Solid	3540C	
280-13251-6	J1DX95	T	Solid	3540C	
Prep Batch: 280-56978					
LCS 280-56978/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-56978/1-A	Method Blank	S	Solid	DI Leach	
280-13251-1	J1DX86	S	Solid	DI Leach	
280-13251-1DU	Duplicate	S	Solid	DI Leach	
280-13251-1MS	Matrix Spike	S	Solid	DI Leach	
280-13251-2	J1DX87	S	Solid	DI Leach	
280-13251-3	J1DX88	S	Solid	DI Leach	
280-13251-4	J1DX89	S	Solid	DI Leach	
280-13251-5	J1DX90	S	Solid	DI Leach	
280-13251-6	J1DX95	S	Solid	DI Leach	
Analysis Batch:280-57065					
LCS 280-56973/2-A	Lab Control Sample	T	Solid	9071B	280-56973
MB 280-56973/1-A	Method Blank	T	Solid	9071B	280-56973
280-13251-1	J1DX86	T	Solid	9071B	280-56973
280-13251-1DU	Duplicate	T	Solid	9071B	280-56973
280-13251-1MS	Matrix Spike	T	Solid	9071B	280-56973
280-13251-2	J1DX87	T	Solid	9071B	280-56973
280-13251-3	J1DX88	T	Solid	9071B	280-56973
280-13251-4	J1DX89	T	Solid	9071B	280-56973
280-13251-5	J1DX90	T	Solid	9071B	280-56973
280-13251-6	J1DX95	T	Solid	9071B	280-56973

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-57081					
LCS 280-56651/2-A	Lab Control Sample	S	Solid	9056M	
MB 280-56651/1-A	Method Blank	S	Solid	9056M	
280-13251-1	J1DX86	S	Solid	9056M	
280-13251-1DU	Duplicate	S	Solid	9056M	
280-13251-1MS	Matrix Spike	S	Solid	9056M	
280-13251-2	J1DX87	S	Solid	9056M	
280-13251-3	J1DX88	S	Solid	9056M	
280-13251-4	J1DX89	S	Solid	9056M	
280-13251-5	J1DX90	S	Solid	9056M	
280-13251-6	J1DX95	S	Solid	9056M	
Analysis Batch:280-57082					
LCS 280-56651/2-A	Lab Control Sample	S	Solid	9056M	
MB 280-56651/1-A	Method Blank	S	Solid	9056M	
280-13251-1	J1DX86	S	Solid	9056M	
280-13251-1DU	Duplicate	S	Solid	9056M	
280-13251-1MS	Matrix Spike	S	Solid	9056M	
280-13251-2	J1DX87	S	Solid	9056M	
280-13251-3	J1DX88	S	Solid	9056M	
280-13251-4	J1DX89	S	Solid	9056M	
280-13251-5	J1DX90	S	Solid	9056M	
280-13251-6	J1DX95	S	Solid	9056M	
Analysis Batch:280-57151					
LCS 280-56978/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-56978/1-A	Method Blank	S	Solid	353.2	
280-13251-1	J1DX86	S	Solid	353.2	
280-13251-1DU	Duplicate	S	Solid	353.2	
280-13251-1MS	Matrix Spike	S	Solid	353.2	
280-13251-2	J1DX87	S	Solid	353.2	
280-13251-3	J1DX88	S	Solid	353.2	
280-13251-4	J1DX89	S	Solid	353.2	
280-13251-5	J1DX90	S	Solid	353.2	
280-13251-6	J1DX95	S	Solid	353.2	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-56619					
LCS 280-56619/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-56619/1-A	Method Blank	T	Solid	3550C	
280-13251-1	J1DX86	T	Solid	3550C	
280-13251-1MS	Matrix Spike	T	Solid	3550C	
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-13251-2	J1DX87	T	Solid	3550C	
280-13251-3	J1DX88	T	Solid	3550C	
280-13251-4	J1DX89	T	Solid	3550C	
280-13251-5	J1DX90	T	Solid	3550C	
280-13251-6	J1DX95	T	Solid	3550C	
Analysis Batch:280-56984					
LCS 280-56619/2-A	Lab Control Sample	T	Solid	8310	280-56619
MB 280-56619/1-A	Method Blank	T	Solid	8310	280-56619
280-13251-1	J1DX86	T	Solid	8310	280-56619
280-13251-1MS	Matrix Spike	T	Solid	8310	280-56619
280-13251-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-56619
280-13251-2	J1DX87	T	Solid	8310	280-56619
280-13251-3	J1DX88	T	Solid	8310	280-56619
280-13251-4	J1DX89	T	Solid	8310	280-56619
280-13251-5	J1DX90	T	Solid	8310	280-56619
280-13251-6	J1DX95	T	Solid	8310	280-56619

Report Basis
T = Total

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56612

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 280-56612/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/09/2011 2312
Date Prepared: 03/09/2011 1500

Analysis Batch: 280-57122
Prep Batch: 280-56612
Units: ug/Kg

Instrument ID: MSV_G
Lab File ID: G3810.D
Initial Weight/Volume: 5.09 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	5.3	U	5.3	20
Benzene	0.46	U	0.46	4.9
Bromodichloromethane	0.22	U	0.22	4.9
Bromoform	0.23	U	0.23	4.9
Bromomethane	0.49	U	0.49	9.8
2-Butanone (MEK)	1.8	U	1.8	9.8
Carbon disulfide	0.41	U	0.41	4.9
Carbon tetrachloride	0.62	U	0.62	4.9
Chlorobenzene	0.53	U	0.53	4.9
Dibromochloromethane	0.56	U	0.56	4.9
Chloroethane	0.87	U	0.87	9.8
Chloroform	0.28	U	0.28	4.9
Chloromethane	0.76	U	0.76	9.8
1,3-Dichlorobenzene	0.47	U	0.47	4.9
1,1-Dichloroethane	0.21	U	0.21	4.9
1,2-Dichloroethane	0.69	U	0.69	4.9
trans-1,2-Dichloroethene	0.38	U	0.38	2.5
1,1-Dichloroethene	0.58	U	0.58	4.9
1,2-Dichloroethene, Total	0.38	U	0.38	4.9
1,2-Dichloropropane	0.54	U	0.54	4.9
cis-1,3-Dichloropropene	1.3	U	1.3	4.9
trans-1,3-Dichloropropene	0.66	U	0.66	4.9
Ethylbenzene	0.66	U	0.66	4.9
2-Hexanone	4.8	U	4.8	20
Methylene Chloride	0.74	U	0.74	4.9
4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	9.8
Styrene	0.62	U	0.62	4.9
1,1,2,2-Tetrachloroethane	0.60	U	0.60	4.9
Tetrachloroethene	0.58	U	0.58	4.9
Toluene	0.68	U	0.68	4.9
1,1,1-Trichloroethane	0.51	U	0.51	4.9
1,1,2-Trichloroethane	0.86	U	0.86	4.9
Trichloroethene	0.23	U	0.23	4.9
Vinyl chloride	1.3	U	1.3	4.9
Xylenes, Total	0.60	U	0.60	4.9

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	73	58 - 140
Toluene-d8 (Surr)	104	80 - 126
4-Bromofluorobenzene (Surr)	99	76 - 127
Dibromofluoromethane (Surr)	78	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank TICs- Batch: 280-56612

Cas Number	Analyte	RT	Est. Result	Qual
60-29-7	Ethyl ether	5.37	0.886	J J N
	Tentatively Identified Compound		None	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-56612

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-56612/2-A	Analysis Batch: 280-57122	Instrument ID: MSV_G
Client Matrix:	Solid	Prep Batch: 280-56612	Lab File ID: G3805.D
Dilution:	1.0	Units: ug/Kg	Initial Weight/Volume: 5 g
Date Analyzed:	03/09/2011 2102		Final Weight/Volume: 5 mL
Date Prepared:	03/09/2011 1500		

LCSD Lab Sample ID:	LCSD 280-56612/3-A	Analysis Batch: 280-57122	Instrument ID: MSV_G
Client Matrix:	Solid	Prep Batch: 280-56612	Lab File ID: G3808.D
Dilution:	1.0	Units: ug/Kg	Initial Weight/Volume: 5 g
Date Analyzed:	03/09/2011 2210		Final Weight/Volume: 5 mL
Date Prepared:	03/09/2011 1500		

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	102	98	76 - 120	4	20		
Bromodichloromethane	90	88	74 - 125	2	20		
Carbon tetrachloride	96	91	69 - 147	6	20		
Chlorobenzene	93	89	74 - 120	4	20		
Chloroform	94	94	77 - 125	0	20		
1,3-Dichlorobenzene	97	93	74 - 120	4	20		
1,1-Dichloroethane	102	99	74 - 120	3	20		
trans-1,2-Dichloroethene	100	100	80 - 127	1	20		
1,1-Dichloroethene	101	98	77 - 143	3	20		
1,2-Dichloropropane	100	96	74 - 120	4	20		
Ethylbenzene	99	93	78 - 120	7	20		
Methylene Chloride	105	98	76 - 137	7	21		
Tetrachloroethene	88	76	71 - 120	14	20		
Toluene	98	93	72 - 120	6	20		
1,1,1-Trichloroethane	101	97	67 - 143	4	20		
Trichloroethene	95	91	78 - 120	4	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	84	58 - 140
Toluene-d8 (Surr)	107	108	80 - 126
4-Bromofluorobenzene (Surr)	111	115	76 - 127
Dibromofluoromethane (Surr)	94	98	75 - 121

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-56612

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-13251-1	Analysis Batch: 280-57122	Instrument ID: MSV_G
Client Matrix:	Solid	Prep Batch: 280-56612	Lab File ID: G3828.D
Dilution:	1.0		Initial Weight/Volume: 4.955 g
Date Analyzed:	03/10/2011 0557		Final Weight/Volume: 5 mL
Date Prepared:	03/09/2011 1500		

MSD Lab Sample ID:	280-13251-1	Analysis Batch: 280-57122	Instrument ID: MSV_G
Client Matrix:	Solid	Prep Batch: 280-56612	Lab File ID: G3829.D
Dilution:	1.0		Initial Weight/Volume: 5.025 g
Date Analyzed:	03/10/2011 0620		Final Weight/Volume: 5 mL
Date Prepared:	03/09/2011 1500		

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	79	84	76 - 120	4	20		
Bromodichloromethane	54	51	74 - 125	7	20	T	T
Carbon tetrachloride	76	71	69 - 147	8	20		
Chlorobenzene	73	67	74 - 120	9	20	T	T
Chloroform	76	85	77 - 125	10	20	T	
1,3-Dichlorobenzene	66	61	74 - 120	9	20	T	T
1,1-Dichloroethane	65	90	74 - 120	30	20	T	*
trans-1,2-Dichloroethene	67	85	80 - 127	23	20	T	*
1,1-Dichloroethene	111	145	77 - 143	25	20		T *
1,2-Dichloropropane	81	87	74 - 120	6	20		
Ethylbenzene	72	67	78 - 120	8	20	T	T
Methylene Chloride	71	91	76 - 137	22	21	T	*
Tetrachloroethene	58	53	71 - 120	11	20	T	T
Toluene	61	76	72 - 120	19	20	T	
1,1,1-Trichloroethane	76	79	67 - 143	2	20		
Trichloroethene	146	146	78 - 120	1	20	T	T

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	96	58 - 140
Toluene-d8 (Surr)	103	96	80 - 126
4-Bromofluorobenzene (Surr)	107	105	76 - 127
Dibromofluoromethane (Surr)	27 *	31 *	75 - 121

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-57042

Method: NWTPH-Gx
Preparation: 5030B

Lab Sample ID: MB 280-57042/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/13/2011 1529
Date Prepared: 03/11/2011 1155

Analysis Batch: 280-57323
Prep Batch: 280-57042
Units: ug/Kg

Instrument ID: GCV_L
Lab File ID: 130F0501.D
Initial Weight/Volume: 10.17 g
Final Weight/Volume: 500 mL
Injection Volume: 5 mL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline	320	U	320	1200

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene	97	77 - 123

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-57042

Method: NWTPH-Gx
Preparation: 5030B

LCS Lab Sample ID: LCS 280-57042/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/13/2011 1413
Date Prepared: 03/11/2011 1155

Analysis Batch: 280-57323
Prep Batch: 280-57042
Units: ug/Kg

Instrument ID: GCV_L
Lab File ID: 128F0301.D
Initial Weight/Volume: 10.20 g
Final Weight/Volume: 500 mL
Injection Volume: 5 mL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 280-57042/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/13/2011 1451
Date Prepared: 03/11/2011 1155

Analysis Batch: 280-57323
Prep Batch: 280-57042
Units: ug/Kg

Instrument ID: GCV_L
Lab File ID: 129F0401.D
Initial Weight/Volume: 10.20 g
Final Weight/Volume: 500 mL
Injection Volume: 5 mL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline	133	116	85 - 153	13	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	106	103	77 - 123

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-57042

Method: NWTPH-Gx
Preparation: 5030B

MS Lab Sample ID:	280-13251-1	Analysis Batch: 280-57323	Instrument ID: GCV_L
Client Matrix:	Solid	Prep Batch: 280-57042	Lab File ID: 132F0701.D
Dilution:	1.0		Initial Weight/Volume: 10.10 g
Date Analyzed:	03/13/2011 1645		Final Weight/Volume: 500 mL
Date Prepared:	03/11/2011 1155		Injection Volume: 5 mL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-13251-1	Analysis Batch: 280-57323	Instrument ID: GCV_L
Client Matrix:	Solid	Prep Batch: 280-57042	Lab File ID: 201F0801.D
Dilution:	1.0		Initial Weight/Volume: 10.10 g
Date Analyzed:	03/13/2011 1722		Final Weight/Volume: 500 mL
Date Prepared:	03/11/2011 1155		Injection Volume: 5 mL
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Gasoline	101	110	85 - 153	8	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	96	102	77 - 123

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56609

Method: 8082
Preparation: 3550C

Lab Sample ID: MB 280-56609/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 0027
Date Prepared: 03/09/2011 2327

Analysis Batch: 280-57288
Prep Batch: 280-56609
Units: ug/Kg

Instrument ID: GCS_P3
Lab File ID: 037B3701.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.8	U	2.8	10
Aroclor 1221	8.0	U	8.0	17
Aroclor 1232	2.0	U	2.0	10
Aroclor 1242	4.7	U	4.7	10
Aroclor 1248	4.7	U	4.7	10
Aroclor 1254	2.6	U	2.6	10
Aroclor 1260	2.6	U	2.6	10

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	70	59 - 130
Tetrachloro-m-xylene	86	53 - 128

Lab Control Sample - Batch: 280-56609

Method: 8082
Preparation: 3550C

Lab Sample ID: LCS 280-56609/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 0048
Date Prepared: 03/09/2011 2327

Analysis Batch: 280-57288
Prep Batch: 280-56609
Units: ug/Kg

Instrument ID: GCS_P3
Lab File ID: 038B3801.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.3	28.2	85	54 - 132	
Aroclor 1260	33.3	28.0	84	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	72	59 - 130
Tetrachloro-m-xylene	90	53 - 128

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-56609

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-13251-1	Analysis Batch: 280-57291	Instrument ID: GCS_P3
Client Matrix:	Solid	Prep Batch: 280-56609	Lab File ID: 007B0701.D
Dilution:	1.0		Initial Weight/Volume: 30.5 g
Date Analyzed:	03/12/2011 1150		Final Weight/Volume: 5000 uL
Date Prepared:	03/09/2011 2327		Injection Volume: 1 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-13251-1	Analysis Batch: 280-57288	Instrument ID: GCS_P3
Client Matrix:	Solid	Prep Batch: 280-56609	Lab File ID: 041B4101.D
Dilution:	1.0		Initial Weight/Volume: 30.5 g
Date Analyzed:	03/11/2011 0153		Final Weight/Volume: 5000 uL
Date Prepared:	03/09/2011 2327		Injection Volume: 1 uL
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	75	76	54 - 132	2	26		
Aroclor 1260	55	71	62 - 129	5	26	N	

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	66	71	59 - 130
Tetrachloro-m-xylene	82	87	53 - 128

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56610

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID: MB 280-56610/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 2250
Date Prepared: 03/10/2011 0000

Analysis Batch: 280-57051
Prep Batch: 280-56610
Units: ug/Kg

Instrument ID: GCS_U2
Lab File ID: 070B2301.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
C10-C36	1000	U	1000	4000
C10-C28	680	U	680	4000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	70	49 - 115

Lab Control Sample - Batch: 280-56610

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID: LCS 280-56610/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 2323
Date Prepared: 03/10/2011 0000

Analysis Batch: 280-57051
Prep Batch: 280-56610
Units: ug/Kg

Instrument ID: GCS_U2
Lab File ID: 071B2401.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	66700	61700	93	57 - 115	
C10-C28	66700	61700	93	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	83	49 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-56610

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-13251-1	Analysis Batch: 280-57051	Instrument ID: GCS_U2
Client Matrix:	Solid	Prep Batch: 280-56610	Lab File ID: 073B2601.D
Dilution:	1.0		Initial Weight/Volume: 31.0 g
Date Analyzed:	03/11/2011 0029		Final Weight/Volume: 1000 uL
Date Prepared:	03/10/2011 0000		Injection Volume: 1 uL

MSD Lab Sample ID:	280-13251-1	Analysis Batch: 280-57051	Instrument ID: GCS_U2
Client Matrix:	Solid	Prep Batch: 280-56610	Lab File ID: 074B2701.D
Dilution:	1.0		Initial Weight/Volume: 30.9 g
Date Analyzed:	03/11/2011 0102		Final Weight/Volume: 1000 uL
Date Prepared:	03/10/2011 0000		Injection Volume: 1 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	58	92	57 - 115	16	23		
C10-C28	62	86	56 - 115	15	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	68	74	49 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56619

Method: 8310
Preparation: 3550C

Lab Sample ID: MB 280-56619/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1326
Date Prepared: 03/10/2011 1005

Analysis Batch: 280-56984
Prep Batch: 280-56619
Units: ug/Kg

Instrument ID: CHHPLC_G
Lab File ID: G0311008.D
Initial Weight/Volume: 31.0 g
Final Weight/Volume: 4000 uL
Injection Volume: 20 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.7	U	9.7	97
Acenaphthylene	8.7	U	8.7	97
Anthracene	3.0	U	3.0	19
Benzo[a]anthracene	3.1	U	3.1	15
Benzo[a]pyrene	6.2	U	6.2	15
Benzo[b]fluoranthene	4.1	U	4.1	15
Benzo[g,h,i]perylene	7.0	U	7.0	29
Benzo[k]fluoranthene	3.8	U	3.8	15
Chrysene	4.7	U	4.7	39
Dibenzo(a,h)anthracene	11	U	11	29
Fluoranthene	13	U	13	39
Fluorene	5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene	12	U	12	29
Naphthalene	12	U	12	97
Phenanthrene	12	U	12	39
Pyrene	12	U	12	39

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	91	72 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Lab Control Sample - Batch: 280-56619

Method: 8310
Preparation: 3550C

Lab Sample ID: LCS 280-56619/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1357
Date Prepared: 03/10/2011 1005

Analysis Batch: 280-56984
Prep Batch: 280-56619
Units: ug/Kg

Instrument ID: CHHPLC_G
Lab File ID: G0311009.D
Initial Weight/Volume: 30.4 g
Final Weight/Volume: 4000 uL
Injection Volume: 20 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1970	1890	96	72 - 115	
Acenaphthylene	1970	1790	91	60 - 115	
Anthracene	1970	1750	89	61 - 115	
Benzo[a]anthracene	1970	2030	103	76 - 115	
Benzo[a]pyrene	1970	1690	85	69 - 115	
Benzo[b]fluoranthene	1970	1930	98	81 - 115	
Benzo[g,h,i]perylene	1970	1920	97	71 - 115	
Benzo[k]fluoranthene	1970	1940	98	85 - 115	
Chrysene	1970	1890	96	70 - 115	
Dibenzo(a,h)anthracene	1970	1950	99	79 - 115	
Fluoranthene	1970	1920	97	67 - 115	
Fluorene	1970	1850	94	72 - 115	
Indeno[1,2,3-cd]pyrene	1970	2080	105	76 - 115	
Naphthalene	1970	1920	97	77 - 115	
Phenanthrene	1970	1900	96	79 - 115	
Pyrene	1970	1930	98	77 - 115	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	94	72 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-56619

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-13251-1	Analysis Batch: 280-56984	Instrument ID: CHHPLC_G
Client Matrix:	Solid	Prep Batch: 280-56619	Lab File ID: G0311011.D
Dilution:	1.0		Initial Weight/Volume: 30.0 g
Date Analyzed:	03/11/2011 1458		Final Weight/Volume: 4000 uL
Date Prepared:	03/10/2011 1005		Injection Volume: 20 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-13251-1	Analysis Batch: 280-56984	Instrument ID: CHHPLC_G
Client Matrix:	Solid	Prep Batch: 280-56619	Lab File ID: G0311012.D
Dilution:	1.0		Initial Weight/Volume: 30.1 g
Date Analyzed:	03/11/2011 1528		Final Weight/Volume: 4000 uL
Date Prepared:	03/10/2011 1005		Injection Volume: 20 uL
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	95	93	72 - 115	2	20		
Acenaphthylene	91	90	60 - 115	2	21		
Anthracene	90	89	61 - 115	1	20		
Benzo[a]anthracene	105	104	76 - 115	1	20		
Benzo[a]pyrene	91	90	69 - 115	2	20		
Benzo[b]fluoranthene	97	97	81 - 115	1	20		
Benzo[g,h,i]perylene	99	99	71 - 115	1	20		
Benzo[k]fluoranthene	102	99	85 - 115	3	20		
Chrysene	98	97	70 - 115	1	20		
Dibenzo(a,h)anthracene	100	100	79 - 115	1	20		
Fluoranthene	97	96	67 - 115	1	20		
Fluorene	93	93	72 - 115	1	20		
Indeno[1,2,3-cd]pyrene	105	104	76 - 115	1	20		
Naphthalene	97	96	77 - 115	1	20		
Phenanthrene	97	96	79 - 115	1	20		
Pyrene	100	99	77 - 115	1	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	97	96	72 - 115

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 280-56629/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1221
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57255
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.101	B	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
Magnesium	3.7	U	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Method Blank - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 280-56629/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 1508
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57452
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A1031411.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Sodium	59.0	U	59.0	120

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Lab Control Sample - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 280-56629/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1223
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57255
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	50.0	48.17	96	82 - 110	
Arsenic	100	92.10	92	85 - 110	
Barium	200	189.3	95	87 - 112	
Beryllium	5.00	5.09	102	84 - 114	
Boron	100	95.41	95	81 - 110	
Cadmium	10.0	10.40	104	87 - 110	
Calcium	5000	5080	102	82 - 114	
Chromium	20.0	20.22	101	84 - 114	
Cobalt	50.0	48.69	97	87 - 110	
Copper	25.0	23.84	95	88 - 110	
Iron	100	96.25	96	87 - 120	
Lead	50.0	45.57	91	86 - 110	
Magnesium	5000	4905	98	90 - 110	
Manganese	50.0	51.70	103	88 - 110	
Molybdenum	100	100.7	101	86 - 110	
Nickel	50.0	49.14	98	87 - 110	
Potassium	5000	5316	106	89 - 110	
Selenium	200	209.4	105	83 - 110	
Silicon	1000	126.0	13	10 - 70	
Silver	5.00	5.43	109	87 - 114	
Vanadium	50.0	52.43	105	88 - 110	
Zinc	50.0	47.07	94	76 - 114	

Lab Control Sample - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 280-56629/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 1510
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57452
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A1031411.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	187.4	94	82 - 116	
Sodium	5000	5174	103	90 - 112	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1233
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57255
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.40	U	50.8	12.83	25	20 - 200	
Arsenic	10.3		102	97.87	86	76 - 111	
Barium	104		203	295.6	94	52 - 159	
Beryllium	0.13	B	5.08	4.86	93	72 - 105	
Boron	7.0		102	93.40	85	75 - 107	
Cadmium	0.13	B	10.2	9.91	96	40 - 130	
Calcium	93800		5080	104400	209	43 - 165	4
Chromium	13.8		20.3	33.83	98	70 - 200	
Cobalt	5.9		50.8	48.40	84	72 - 106	
Copper	21.9		25.4	46.66	97	37 - 187	
Iron	17800		102	19100	1276	70 - 200	4
Lead	8.9		50.8	48.44	78	70 - 200	
Magnesium	5000		5080	9921	97	64 - 145	
Manganese	234		50.8	315.1	159	40 - 200	4
Molybdenum	0.59	B	102	88.78	87	75 - 103	
Nickel	11.3		50.8	54.07	84	61 - 126	
Potassium	1490		5080	6932	107	56 - 172	
Selenium	0.91	U	203	194.6	96	76 - 104	
Silicon	77.7		1020	260.7	18	20 - 200	N
Silver	0.17	U	5.08	5.22	103	75 - 141	
Vanadium	47.9		50.8	101.2	105	50 - 169	
Zinc	70.5		50.8	114.3	86	70 - 200	

Matrix Spike - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 1519
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57452
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A1031411.asc
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	11000	203	12710	825	50 - 200	4
Sodium	921	5080	6259	105	78 - 111	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Duplicate - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1230
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57255
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 1.19 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	0.40	U	0.34	NC	40	U
Arsenic	10.3		11.15	8	30	
Barium	104		106.8	3	30	
Beryllium	0.13	B	0.125	2	30	B
Boron	7.0		7.34	4	30	
Cadmium	0.13	B	0.127	0.7	30	B
Calcium	93800		94730	1	30	
Chromium	13.8		14.80	7	40	
Cobalt	5.9		5.76	2	30	
Copper	21.9		22.51	3	30	
Iron	17800		17920	0.7	40	
Lead	8.9		9.14	3	40	
Magnesium	5000		4880	2	30	
Manganese	234		229.4	2	40	
Molybdenum	0.59	B	0.646	9	30	B
Nickel	11.3		11.02	3	30	
Potassium	1490		1525	2	40	
Selenium	0.91	U	0.877	NC	30	B
Silicon	77.7		61.21	24	40	
Silver	0.17	U	0.14	NC	30	U
Vanadium	47.9		47.17	1	30	
Zinc	70.5		71.10	0.8	40	

Duplicate - Batch: 280-56629

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/14/2011 1517
Date Prepared: 03/10/2011 1430

Analysis Batch: 280-57452
Prep Batch: 280-56629
Units: mg/Kg

Instrument ID: MT_025
Lab File ID: 25A1031411.asc
Initial Weight/Volume: 1.19 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Aluminum	11000	10700	3	40	
Sodium	921	927.3	0.7	30	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56535

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 280-56535/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 2345
Date Prepared: 03/10/2011 1127

Analysis Batch: 280-56948
Prep Batch: 280-56535
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 110310AD.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-56535

Method: 7471A
Preparation: 7471A

Lab Sample ID: LCS 280-56535/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 2347
Date Prepared: 03/10/2011 1127

Analysis Batch: 280-56948
Prep Batch: 280-56535
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 110310AD.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.400	96	87 - 111	

Matrix Spike - Batch: 280-56535

Method: 7471A
Preparation: 7471A

Lab Sample ID: 280-13251-4
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 0006
Date Prepared: 03/10/2011 1127

Analysis Batch: 280-56948
Prep Batch: 280-56535
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 110310AD.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.099	0.433	0.499	92	87 - 111	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Duplicate - Batch: 280-56535

Method: 7471A
Preparation: 7471A

Lab Sample ID: 280-13251-4
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 0003
Date Prepared: 03/10/2011 1127

Analysis Batch: 280-56948
Prep Batch: 280-56535
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 110310AD.txt
Initial Weight/Volume: 0.69 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.099	0.0926	7	20	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 280-56978/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1128
Date Prepared: N/A
Date Leached: 03/10/2011 1110

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56978

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.35	U	0.35	0.74

Method Reporting Limit Check - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: MRL 280-57151/17
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2011 1115
Date Prepared: N/A

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0844	84	50 - 150	B

Lab Control Sample - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 280-56978/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1130
Date Prepared: N/A
Date Leached: 03/10/2011 1110

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56978

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	49.0	49.35	101	90 - 110	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1209
Date Prepared: N/A
Date Leached: 03/10/2011 1110

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56978

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	13.0	41.9	55.27	101	90 - 110	

Duplicate - Batch: 280-57151

Method: 353.2
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1208
Date Prepared: N/A
Date Leached: 03/10/2011 1110

Analysis Batch: 280-57151
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56978

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0311NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	13.0	13.51	4	10	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-56685

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-56685/4	Analysis Batch:	280-56685	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	SU	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/10/2011 1004			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 280-56685/5	Analysis Batch:	280-56685	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	SU	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/10/2011 1004			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

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

Duplicate - Batch: 280-56685

Method: 9045C
Preparation: N/A

Lab Sample ID:	280-13251-1	Analysis Batch:	280-56685	Instrument ID:	WC_pH Probe
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	SU	Initial Weight/Volume:	1.0 mL
Date Analyzed:	03/10/2011 1009			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				
Date Leached:	03/10/2011 0737	Leachate Batch:	280-56630		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	12.3	12.28	0.4	5	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-57081

Method: 9056M
Preparation: N/A

Lab Sample ID: MB 280-56651/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1451
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57081
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 126.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.31	U	0.31	2.5
Nitrite as N-Soluble	0.33	U	0.33	2.5
Orthophosphate as P-Soluble	1.2	U	1.2	5.0

Method Reporting Limit Check - Batch: 280-57081

Method: 9056M
Preparation: N/A

Lab Sample ID: MRL 280-57081/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2011 0931
Date Prepared: N/A

Analysis Batch: 280-57081
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC6
Lab File ID: 112.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.221	110	50 - 150	B
Nitrite as N-Soluble	0.200	0.196	98	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.19	94	50 - 150	U

Lab Control Sample - Batch: 280-57081

Method: 9056M
Preparation: N/A

Lab Sample ID: LCS 280-56651/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1201
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57081
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 120.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	50.0	49.51	99	90 - 110	
Nitrite as N-Soluble	50.0	48.05	96	90 - 110	
Orthophosphate as P-Soluble	50.0	47.98	96	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike - Batch: 280-57081

Method: 9056M
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1310
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57081
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 123.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	13.0		52.3	65.11	100	80 - 120	
Nitrite as N-Soluble	0.80	B	52.3	50.37	95	80 - 120	
Orthophosphate as P-Soluble	1.3	U	52.4	1.3	0	80 - 120	U N

Duplicate - Batch: 280-57081

Method: 9056M
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1253
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57081
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 122.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	13.0		12.83	1	15	
Nitrite as N-Soluble	0.80	B	0.691	14	15	B
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-57082

Method: 9056M
Preparation: N/A

Lab Sample ID: MB 280-56651/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1451
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57082
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 126.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	2.0	U	2.0	5.0
Bromide-Soluble	0.38	U	0.38	2.0
Sulfate-Soluble	1.7	U	1.7	5.0
Fluoride-Soluble	0.81	U	0.81	5.0

Method Reporting Limit Check - Batch: 280-57082

Method: 9056M
Preparation: N/A

Lab Sample ID: MRL 280-57082/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2011 0931
Date Prepared: N/A

Analysis Batch: 280-57082
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC6
Lab File ID: 112.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.00	1.00	100	50 - 150	B
Bromide-Soluble	0.200	0.208	104	50 - 150	B
Sulfate-Soluble	1.00	0.928	93	50 - 150	B
Fluoride-Soluble	0.200	0.224	112	50 - 150	B

Lab Control Sample - Batch: 280-57082

Method: 9056M
Preparation: N/A

Lab Sample ID: LCS 280-56651/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1201
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57082
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 120.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	250	244.4	98	90 - 110	
Bromide-Soluble	50.0	49.96	100	90 - 110	
Sulfate-Soluble	250	251.2	100	90 - 110	
Fluoride-Soluble	50.0	51.62	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Matrix Spike - Batch: 280-57082

Method: 9056M
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1310
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57082
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 123.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	17.8		262	281.5	101	80 - 120	
Bromide-Soluble	0.40	U	52.3	52.72	101	80 - 120	
Sulfate-Soluble	98.9		262	361.9	100	80 - 120	
Fluoride-Soluble	17.3		52.3	60.84	83	80 - 120	

Duplicate - Batch: 280-57082

Method: 9056M
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/10/2011 1253
Date Prepared: N/A
Date Leached: 03/10/2011 0900

Analysis Batch: 280-57082
Prep Batch: N/A
Units: mg/Kg

Leachate Batch: 280-56651

Instrument ID: WC_IC6
Lab File ID: 122.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	17.8		17.15	4	15	
Bromide-Soluble	0.40	U	0.39	NC	15	U
Sulfate-Soluble	98.9		97.68	1	15	
Fluoride-Soluble	17.3		17.27	0.4	15	

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Method Blank - Batch: 280-56973

Method: 9071B
Preparation: 3540C

Lab Sample ID: MB 280-56973/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1338
Date Prepared: 03/11/2011 0923

Analysis Batch: 280-57065
Prep Batch: 280-56973
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 10 g

Analyte	Result	Qual	MDL	RL
Oil & Grease (HEM)	129.9	B	84.7	500

Lab Control Sample - Batch: 280-56973

Method: 9071B
Preparation: 3540C

Lab Sample ID: LCS 280-56973/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1338
Date Prepared: 03/11/2011 0923

Analysis Batch: 280-57065
Prep Batch: 280-56973
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 10 g

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Oil & Grease (HEM)	2000	2018	101	56 - 142	

Matrix Spike - Batch: 280-56973

Method: 9071B
Preparation: 3540C

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1338
Date Prepared: 03/11/2011 0923

Analysis Batch: 280-57065
Prep Batch: 280-56973
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.08 g
Final Weight/Volume: 10 g

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Oil & Grease (HEM)	272	B	2100	2077	86	56 - 142	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Duplicate - Batch: 280-56973

Method: 9071B
Preparation: 3540C

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/11/2011 1338
Date Prepared: 03/11/2011 0923

Analysis Batch: 280-57065
Prep Batch: 280-56973
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.04 g
Final Weight/Volume: 10 g

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Oil & Grease (HEM)	272	B	294.9	8	32	B C

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13251-1
Sdg Number: JP0106

Duplicate - Batch: 280-56493

Method: D-2216
Preparation: N/A

Lab Sample ID: 280-13251-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/09/2011 1249
Date Prepared: N/A

Analysis Batch: 280-56493
Prep Batch: N/A
Units: %

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	5.4	5.2	5	20	

25.3.5

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-107-061	Page ~~1 of 12~~

Collector AW 3-8-11 M. Blanking ~~shing~~ Ship	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH
Price Code ~~8L~~ 98	Data Turnaround ~~21~~ 7 Days		
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing		SAF No. RC-107
Ice Chest No. ERC-02-004	Field Logbook No. EL 1627-04	COA 0126H22600	Method of Shipment AF 3-8-11 ~~Government Vehicle~~/FedEx
Shipped To AW 3-8-11 ~~EBERLINE SERVICES / LIONVILLE~~ Test America Denver	Offsite Property No. NA		Bill of Lading/Air Bill No. 7945 0882 0229

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	~~40mL~~ 60mL AW 3-8-11	120mL	40mL	120mL	120mL	500mL	~~120mL~~ 60mL
SAMPLE ANALYSIS	See item (1) in Special Instructions. *	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D + X	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions.	Isotopic Plutonium

Sample No.	Matrix *	Sample Date	Sample Time										
~~J1DX85~~	~~SOIL~~			AW 3-8-11									
J1DX86	SOIL	3-8-11	0915	X	X	X	X	X	X	X	X		
J1DX87	SOIL	3-8-11	0935	X	X	X	X	X	X	X	X		
J1DX88	SOIL	3-8-11	0950	X	X	X	X	X	X	X	X		
J1DX89	SOIL	3-8-11	1030	X	X	X	X	X	X	X	X		

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[illegible]	1200 3-8-11	[illegible]	3-8-11 1200
[illegible] 3-8-11	1315	A. Freier A. Freier	3-8-11 1315
A. Freier A. Freier	1320 3-8-11	Fed Ex	
		~~[illegible]~~	3/9/11 930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate}; NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

* J1DX86 500 mL container - 125 mL

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 LRE DATE 3-8-11

JP0106

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

WCH-EE-011

2 of 3 TRE38K

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-107-061	Page ~~5~~ of 12
Collector M. Blankingship	Company Contact Joan Kessner / Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code ~~8L~~ 9B / Data Turnaround ~~21~~ 7 Days
Project Designation 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location 126-H-2 Verification Sampleing	SAF No. RC-107	
Ice Chest No. ERC-02-604	Field Logbook No. EL 1627-04 / COA 0126H22600	Method of Shipment AF 3-8-11 ~~Government Vehicle~~/FedEx	
Shipped To ~~EBERLINE SERVICES / LIONVILLE~~ Test America Denver	Offsite Property No. NA	Bill of Lading/Air Bill No. 7945 0882 0229	

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Special Handling and/or Storage
Cool 4 Deg C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	~~40mL~~ 60 mL	120mL	40mL	120mL	120mL	500mL	120mL

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	See item (1) in Special Instructions.	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions.	Isotopic Plutonium
J1DX90	SOIL	3-8-11	1055	X	X	X	X	X	X	X	X		
J1DX91	SOIL	3-8-11											
J1DX92	SOIL	3-8-11											
J1DX93	SOIL	3-8-11											
J1DX94	SOIL	3-8-11											

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[signature]	1200 3-8-11	[signature] J.R. Edmondson	3-8-11 1200
J.R. Edmondson	3-8-11 1315	A. Freier [signature]	3-8-11 1315
A. Freier [signature]	1320 3-8-11	Fed Ex	
		[signature]	3/9/11 930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate}; NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

REVIEWED BY IRE DATE 3-8-11

JP0106

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

3 of 3 TRE 3-8-11

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-107-061	Page ~~6 of 12~~
Collector M. Blanking ~~shing~~	Company Contact: Joan Kessner; Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH	Price Code: 8L 9B; Data Turnaround: ~~21~~ 7 Days
Project Designation: 100-H Remaining Sites Burial Grounds - Soil Full Protocol	Sampling Location: 126-H-2 Verification Sampleing	SAF No.: RC-107	
Ice Chest No.: ERC-02-004	Field Logbook No.: EL 1627-04; COA: 0126H22600	Method of Shipment: AF 3-8-11 ~~Government Vehicle~~/FedEx	
Shipped To: ~~EBERLINE SERVICES / LIONVILLE~~ TestAmerica Donna	Offsite Property No.: NA	Bill of Lading/Air Bill No.: 7945 0882 0229	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None
Type of Container	G/P	G/P	G	aGs*	G	aG	aG	aG	G/P	G/P
No. of Container(s)	1	0	1	1	0	1	0	0	1	0
Volume	60mL	60mL	120mL	~~40mL~~ 60 mL	120mL	40mL	120mL	120mL	500mL	120mL

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	See item (1) in Special Instructions.	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	TPH-Gasoline Range - WTPH-G	Oil & Grease - 1664	VOA - 8260A (TCL)	PCBs - 8082	PAHs - 8310	See item (3) in Special Instructions.	Isotopic Plutonium
J1DX95	SOIL	3-8-11	1630	X	X	X	X	X	X	X	X		
J1DX96	SOIL												

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[signature]	1200 3-8-11	[signature]	3-8-11 1200
[signature]	3-8-11 1315	A. Freier [signature]	1315 3-8-11
A. Freier [signature]	1320 3-8-11	Fed Ex	
		[signature]	3/9/11 930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out 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)
(2) IC Anions - 300.0 (Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate); NO2/NO3 - 353.2; pH (Soil) - 9045
(3) Gamma Spec - Client List {Americium-241, Barium-133, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Silver-108 metastable}

REVIEWED BY JRE DATE 3-8-11

JP0106

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 - 6010TR Solid

Analytical Due:

Report Due: 3/18/11 (Rush 5 day TAT)

Sample Check-in List

Date/Time Received: 3/9/11 930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP0106 NA[ ] SAF #: RC-107 NA [ ]

Job Number: 13251 Chain of Custody # RC-107-061

Shipping Container ID: ERC-02-004, ERC-96-028 Air Bill # 794508820229

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ] 794508820321
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 2.5, 3.5 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - 1 In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added** ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] **Date:** 3/9/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 3/9/11

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

RICHLAND, WA 99354

FedEx. Express

J11101012220225

Ship Date: 08MAR11
ActWgt: 56.0 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

WED - 09 MAR A1
PRIORITY OVERNIGHT

TRK# 7945 0882 0229
0201

MASTER

XH WHHA

80002
CO-US
DEN

50DG2/BDD9/7EFB

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

RICHLAND, WA 99354

FedEx. Express

J11101012220225

Ship Date: 08MAR11
ActWgt: 72.0 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

WED - 09 MAR A1
PRIORITY OVERNIGHT

MPS# 7945 0882 0321
0263
Mstr# 7945 0882 0229 0201

XH WHHA

80002
CO-US
DEN

50DG2/B0D9/7EFB

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