0099979

SAF-RC-075
100-D/DR Burial Grounds & Remaining Sites – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 10/4/11
INITIAL/DATE

COMMENTS:

SDG J01275 SAF RC-075

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 118-D-2:1 Burial Ground – Focus Samples

RECEIVED
NOV 01 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
SEP 2011

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 69 ***Pages***

Report No.: 48631

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.
J01275	RC-075	J1KVC3	J1I130490-1	MMERA1AD	9MMERA10	1257078
		J1KVC3	J1I130490-1	MMERA1AH	9MMERA10	1257080
		J1KVC3	J1I130490-1	MMERA1AG	9MMERA10	1257081
		J1KVC3	J1I130490-1	MMERA1AE	9MMERA10	1257082
		J1KVC3	J1I130490-1	MMERA1AJ	9MMERA10	1257083
		J1KVC3	J1I130490-1	MMERA1AC	9MMERA10	1257085
		J1KVC3	J1I130490-1	MMERA1AF	9MMERA10	1257086
		J1KVC3	J1I130490-1	MMERA1AA	9MMERA10	1258057
		J1KVC4	J1I130490-2	MMERE1AD	9MMERE10	1257078
		J1KVC4	J1I130490-2	MMERE1AH	9MMERE10	1257080
		J1KVC4	J1I130490-2	MMERE1AG	9MMERE10	1257081
		J1KVC4	J1I130490-2	MMERE1AE	9MMERE10	1257082
		J1KVC4	J1I130490-2	MMERE1AJ	9MMERE10	1257083
		J1KVC4	J1I130490-2	MMERE1AC	9MMERE10	1257085
		J1KVC4	J1I130490-2	MMERE1AF	9MMERE10	1257086
		J1KVC4	J1I130490-2	MMERE1AA	9MMERE10	1258057

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

September 30, 2011

Attention: Joan Kessner

SAF Number	:	RC-075
Date SDG Closed	:	September 13, 2011
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	J01275
Data Deliverable	:	21– Day / Summary

CASE NARRATIVE

I. Introduction

On September 13, 2011, two soil samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1KVC3	MMERA	SOIL	9/13/11
J1KVC4	MMERE	SOIL	9/13/11

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-002
Uranium 234, 235 and 238 by method RL-ALP-015

Gas Proportional Counting
Strontium-90 by method RL-GPC-003
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Liquid Scintillation Counting
Tritium by method RL-LSC-005
Carbon-14 by method RL-LSC-008
Nickel-63 by method RL-LCS-017
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 (J1KVC3) results are within contractual requirements.

Uranium 234, 235 and 238 by method RL-ALP-015:
The LCS, batch blank, samples and sample duplicate (J1KVC4) results are within contractual requirements.

Gas Proportional Counting
Strontium-90 by method RL-GPC-003:
The LCS, batch blank, samples and sample duplicate (J1KVC4) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:
The CRDL was not met for some of the analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1KVC4) results are within contractual requirements.

Liquid Scintillation Counting
Tritium by method RL-LSC-005:
The LCS, batch blank, samples and sample duplicate (J1KVC3) results are within contractual requirements.

Carbon-14 by method RL-LSC-008:

The LCS, batch blank, samples and sample duplicate (J1KVC3) results are within contractual requirements.

Nickel-63 by method RL-LCS-017:
The LCS, batch blank, samples and sample duplicate (J1KVC4) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
The LCS, batch blank, samples, sample duplicate (J1KVC3) and sample matrix spike (J1KVC3) 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

TestAmerica TARL

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

Date: 30-Sep-11

Report No. : 48631

SDG No: J01275

Batch	Client Id / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1257086 PUISO_PLATE_AEA									
J1KVC3									
	MMERA1AF	PU-238	-1.78E-03 +- 7.1E-02	U	pCi/g	87%	1.33E-01	1.00E+00	
		PU239/40	-3.56E-03 +- 7.1E-02	U	pCi/g	87%	1.48E-01	1.00E+00	
J1KVC3 DUP									
	MMERA1AM	PU-238	0.00E+00 +- 6.2E-02	U	pCi/g	100%	1.17E-01	1.00E+00	-200.0
		PU239/40	3.11E-02 +- 6.3E-02	U	pCi/g	100%	1.17E-01	1.00E+00	251.6
J1KVC4									
	MMERE1AF	PU-238	-2.69E-03 +- 5.4E-02	U	pCi/g	100%	1.13E-01	1.00E+00	
		PU239/40	2.56E-02 +- 5.4E-02	U	pCi/g	100%	1.01E-01	1.00E+00	
1257085 UISO_IE_PLATE_AEA									
J1KVC3									
	MMERA1AC	U-234	2.32E-01 +- 1.7E-01		pCi/g	88%	1.46E-01	1.00E+00	
		U-235	-1.34E-02 +- 5.4E-02	U	pCi/g	88%	1.61E-01	1.00E+00	
		U-238	3.13E-01 +- 2.0E-01		pCi/g	88%	1.41E-01	1.00E+00	
J1KVC4									
	MMERE1AC	U-234	1.30E-01 +- 1.3E-01	U	pCi/g	84%	1.53E-01	1.00E+00	
		U-235	-1.40E-03 +- 5.6E-02	U	pCi/g	84%	1.05E-01	1.00E+00	
		U-238	2.99E-01 +- 2.0E-01		pCi/g	84%	1.47E-01	1.00E+00	
J1KVC4 DUP									
	MMERE1AN	U-234	2.82E-02 +- 5.7E-02	U	pCi/g	81%	1.06E-01	1.00E+00	128.6
		U-235	2.82E-02 +- 5.7E-02	U	pCi/g	81%	1.06E-01	1.00E+00	220.8
		U-238	1.69E-01 +- 1.4E-01		pCi/g	81%	1.06E-01	1.00E+00	55.4
1257080 GAMMA_GS									
J1KVC3									
	MMERA1AH	AMERICIUM 241	-4.84E-02 +- 9.5E-02	U	pCi/g		1.57E-01		
		CO-60	1.62E-02 +- 2.0E-02	U	pCi/g		3.72E-02	5.00E-02	
		CS-137	2.11E-02 +- 2.1E-02	U	pCi/g		3.66E-02	1.00E-01	
		EU-152	-3.68E-02 +- 1.3E-01	U	pCi/g		1.00E-01	1.00E-01	
		EU-154	1.44E-02 +- 6.8E-02	U	pCi/g		1.18E-01	1.00E-01	
		EU-155	3.94E-02 +- 6.9E-02	U	pCi/g		1.17E-01	1.00E-01	
J1KVC4									
	MMERE1AH	AMERICIUM 241	3.77E-02 +- 9.1E-02	U	pCi/g		1.62E-01		
		CO-60	2.57E-04 +- 1.3E-02	U	pCi/g		2.34E-02	5.00E-02	
		CS-137	9.89E-03 +- 1.5E-02	U	pCi/g		2.71E-02	1.00E-01	
		EU-152	1.48E-03 +- 3.4E-02	U	pCi/g		5.70E-02	1.00E-01	
		EU-154	4.12E-02 +- 4.8E-02	U	pCi/g		8.86E-02	1.00E-01	
		EU-155	6.58E-02 +- 4.1E-02	U	pCi/g		7.18E-02	1.00E-01	
J1KVC4 DUP									

TestAmerica

rptSTLRchSaSummary2 V5.2.15 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: 30-Sep-11

Report No. : 48631

SDG No: J01275

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1257080 GAMMA_GS									
J1KVC4 DUP									
	MMERE1AL	AMERICIUM 241	-5.41E-02 +- 1.9E-01	U	pCi/g		3.04E-01		-1123.0
		CO-60	-1.06E-02 +- 1.8E-02	U	pCi/g		2.94E-02	5.00E-02	-209.9
		CS-137	1.03E-02 +- 2.0E-02	U	pCi/g		3.53E-02	1.00E-01	4.1
		EU-152	-9.72E-03 +- 5.1E-02	U	pCi/g		8.42E-02	1.00E-01	-271.6
		EU-154	2.69E-02 +- 6.2E-02	U	pCi/g		1.11E-01	1.00E-01	41.9
		EU-155	2.08E-02 +- 5.7E-02	U	pCi/g		9.69E-02	1.00E-01	103.9
1257078 SRTOT_SEP_PRECIP_GPC									
J1KVC3									
	MMERA1AD	STRONTIUM	1.32E-01 +- 8.1E-02	U	pCi/g	66%	1.39E-01		
J1KVC4									
	MMERE1AD	STRONTIUM	1.91E-02 +- 5.9E-02	U	pCi/g	70%	1.34E-01		
J1KVC4 DUP									
	MMERE1AK	STRONTIUM	4.26E-02 +- 6.2E-02	U	pCi/g	66%	1.34E-01		76.2
1257081 906.0_H3_LSC									
J1KVC3									
	MMERA1AG	H-3	3.58E-02 +- 2.1E-02	U	pCi/g	100%	4.31E-02	4.00E+02	
J1KVC3 DUP									
	MMERA1AK	H-3	3.62E-02 +- 2.1E-02	U	pCi/g	100%	4.20E-02	4.00E+02	1.1
J1KVC4									
	MMERE1AG	H-3	1.02E-02 +- 1.8E-02	U	pCi/g	100%	3.83E-02	4.00E+02	
1257082 NI63_LSC									
J1KVC3									
	MMERA1AE	NI-63	9.95E-01 +- 6.1E+00	U	pCi/g	96%	1.28E+01	3.00E+01	
J1KVC4									
	MMERE1AE	NI-63	7.07E+00 +- 6.6E+00	U	pCi/g	95%	1.23E+01	3.00E+01	
J1KVC4 DUP									
	MMERE1AM	NI-63	2.21E+00 +- 6.1E+00	U	pCi/g	97%	1.22E+01	3.00E+01	104.8
1257083 C14_CHEM_LSC									
J1KVC3									
	MMERA1AJ	C-14	1.64E-01 +- 2.3E-01	U	pCi/g	100%	4.63E-01	5.00E+01	
J1KVC3 DUP									
	MMERA1AL	C-14	1.06E-01 +- 2.2E-01	U	pCi/g	100%	4.62E-01	5.00E+01	43.0
J1KVC4									
	MMERE1AJ	C-14	7.72E-02 +- 2.2E-01	U	pCi/g	100%	4.64E-01	5.00E+01	
1258057 7196_CR6									
J1KVC3									
	MMERA1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.15 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: 30-Sep-11

TestAmerica TARL

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

Report No. : 48631

SDG No: J01275

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1258057	7196_CR6								
	J1KVC3								
	MMERA1AP	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	3.50E-01	0.0
	J1KVC4								
	MMERE1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

No. of Results: 48

TestAmerica

rptSTLRchSaSummary2 V5.2.15 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: 30-Sep-11

Report No. : 48631

SDG No.: J01275

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
PUISO_PLATE_AEA								
1257086 BLANK QC,								
MME8M1AA	PU-238	0.00E+00 +- 7.5E-02	U	pCi/g	88%			1.41E-01
	PU239/40	-1.88E-03 +- 7.5E-02	U	pCi/g	88%			1.41E-01
1257086 LCS,								
MME8M1AC	PU239/40	6.67E+00 +- 1.6E+00		pCi/g	100%	100%	0.0	1.24E-01
UISO_IE_PLATE_AEA								
1257085 BLANK QC,								
MME8L1AA	U-234	0.00E+00 +- 7.0E-02	U	pCi/g	65%			1.32E-01
	U-235	0.00E+00 +- 7.0E-02	U	pCi/g	65%			1.32E-01
	U-238	0.00E+00 +- 7.0E-02	U	pCi/g	65%			1.32E-01
1257085 LCS,								
MME8L1AC	U-234	2.59E+00 +- 7.4E-01		pCi/g	94%	82%	-0.2	9.50E-02
	U-238	2.71E+00 +- 7.6E-01		pCi/g	94%	82%	-0.2	9.50E-02
GAMMA_GS								
1257080 BLANK QC,								
MME8F1AA	AMERICIUM 241	-1.02E-02 +- 2.5E-02	U	pCi/g				4.27E-02
	CO-60	4.68E-04 +- 1.4E-02	U	pCi/g				2.52E-02
	CS-137	-2.65E-03 +- 1.6E-02	U	pCi/g				2.80E-02
	EU-152	-8.42E-03 +- 4.5E-02	U	pCi/g				7.64E-02
	EU-154	-3.28E-02 +- 4.5E-02	U	pCi/g				7.31E-02
	EU-155	6.92E-03 +- 3.5E-02	U	pCi/g				6.07E-02
1257080 LCS,								
MME8F1AC	CS-137	1.06E+00 +- 1.5E-01		pCi/g		99%	0.0	3.97E-02
SRTOT_SEP_PRECIP_GPC								
1257078 BLANK QC,								
MME8D1AA	STRONTIUM	8.84E-03 +- 4.8E-02	U	pCi/g	88%			1.12E-01
1257078 LCS,								
MME8D1AC	STRONTIUM	1.12E+00 +- 3.2E-01		pCi/g	87%	100%	0.0	1.18E-01
906.0_H3_LSC								
1257081 BLANK QC,								
MME8G1AA	H-3	1.06E-03 +- 1.7E-02	U	pCi/g	100%			3.56E-02
1257081 LCS,								
MME8G1AC	H-3	2.87E-01 +- 2.6E-02		pCi/g	100%	99%	0.0	3.55E-02
NI63_LSC								
1257082 BLANK QC,								
MME8H1AA	NI-63	2.25E+00 +- 6.3E+00	U	pCi/g	98%			1.38E+01
1257082 LCS,								
MME8H1AC	NI-63	4.61E+02 +- 4.7E+01		pCi/g	97%	75%	-0.3	1.20E+01
C14_CHEM_LSC								
1257083 BLANK QC,								
MME8J1AA	C-14	3.55E-03 +- 5.6E-03	U	pCi/g	100%			1.16E-02
1257083 LCS,								

TestAmerica

rptSTLRchQcSummary V5.2.15 A2002

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

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

QC Results Summary

Date: 30-Sep-11

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 48631 **SDG No.:** J01275

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
MME8J1AC	C-14	7.39E+00 +- 5.3E-01		pCi/g	100%	102%	0.0	4.66E-01
7196_CR6								
1258057 MATRIX SPIKE, J1KVC3								
MMERA1AN	HEXCHROME	8.96E+00 +- 0.0E+00		mg/kg	N/A	89%	-0.1	1.55E-01
1258057 LCS,								
MMF2L1AC	HEXCHROME	1.94E+01 +- 0.0E+00		mg/kg	N/A	97%	0.0	1.55E-01
1258057 BLANK QC,								
MMF2L1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 26

TestAmerica

rptSTLRchQcSummary V5.2.15 A2002

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

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

FORM I

SAMPLE RESULTS

Date: 30-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 9:45:00 AM
Lot-Sample No.:	J1I130490-1	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC3	**COC No. :**	RC-075-260	**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: 1257078	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MMERA1AD		**Report DB ID:**	9MMERA10				
STRONTIUM	***1.32E-01***	U	7.3E-02	8.1E-02	1.39E-01	pCi/g	66%	*0.94*	9/29/11 02:43 p		6.0	GPC26C
						6.46E-02		*(3.3)*			g	
Batch: 1257080	GAMMA_GS			**Work Order:**	MMERA1AH		**Report DB ID:**	9MMERA10				
AMERICIUM 241	***-4.84E-02***	U	9.5E-02	9.5E-02	1.57E-01	pCi/g		*-0.31*	9/15/11 08:34 p		326.6	GER10$1
								-(1.)			g	
CO-60	***1.62E-02***	U	2.0E-02	2.0E-02	3.72E-02	pCi/g		*0.43*	9/15/11 08:34 p		326.6	GER10$1
							5.00E-02	*(1.6)*			g	
CS-137	***2.11E-02***	U	2.1E-02	2.1E-02	3.66E-02	pCi/g		*0.58*	9/15/11 08:34 p		326.6	GER10$1
							1.00E-01	*(2.1)*			g	
EU-152	***-3.68E-02***	U	1.3E-01	1.3E-01	1.00E-01	pCi/g		*-0.37*	9/15/11 08:34 p		326.6	GER10$1
							1.00E-01	*-0.56*			g	
EU-154	***1.44E-02***	U	6.8E-02	6.8E-02	1.18E-01	pCi/g		*0.12*	9/15/11 08:34 p		326.6	GER10$1
							1.00E-01	*0.42*			g	
EU-155	***3.94E-02***	U	6.9E-02	6.9E-02	1.17E-01	pCi/g		*0.34*	9/15/11 08:34 p		326.6	GER10$1
							1.00E-01	*(1.1)*			g	
Batch: 1257081	906.0_H3_LSC			**Work Order:**	MMERA1AG		**Report DB ID:**	9MMERA10				
H-3	***3.58E-02***	U	1.9E-02	2.1E-02	4.31E-02	pCi/g	100%	*0.83*	9/21/11 10:27 a		84.6	LSC4
						2.06E-02	4.00E+02	*(3.4)*			g	
Batch: 1257082	NI63_LSC			**Work Order:**	MMERA1AE		**Report DB ID:**	9MMERA10				
NI-63	***9.95E-01***	U	5.1E+00	6.1E+00	1.28E+01	pCi/g	96%	*0.08*	9/27/11 04:25 p		0.25	LSC3
						5.98E+00	3.00E+01	*0.32*			g	

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 30-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 9:45:00 AM
Lot-Sample No.:	J1I130490-1	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC3	**COC No. :**	RC-075-260	**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: 1257083	C14_CHEM_LSC			**Work Order:**	MMERA1AJ		**Report DB ID:**	9MMERA10				
C-14	***1.64E-01***	U	2.0E-01	2.3E-01	4.63E-01	pCi/g	100%	*0.35*	9/21/11 04:25 a		5.024	LSC3
						2.18E-01	5.00E+01	*(1.5)*			g	
Batch: 1257085	UISO_IE_PLATE_AEA			**Work Order:**	MMERA1AC		**Report DB ID:**	9MMERA10				
U-234	***2.32E-01***		1.6E-01	1.7E-01	1.46E-01	pCi/g	88%	*(1.6)*	9/29/11 01:54 p		1.03	ALP3
						3.69E-02	1.00E+00	*(2.8)*			g	
U-235	***-1.34E-02***	U	5.4E-02	5.4E-02	1.61E-01	pCi/g	88%	*-0.08*	9/29/11 01:54 p		1.03	ALP3
						4.40E-02	1.00E+00	*-0.49*			g	
U-238	***3.13E-01***		1.9E-01	2.0E-01	1.41E-01	pCi/g	88%	*(2.2)*	9/29/11 01:54 p		1.03	ALP3
						3.41E-02	1.00E+00	*(3.2)*			g	
							Ratio U-234/238 = 0.7					
Batch: 1257086	PUISO_PLATE_AEA			**Work Order:**	MMERA1AF		**Report DB ID:**	9MMERA10				
PU-238	***-1.78E-03***	U	7.1E-02	7.1E-02	1.33E-01	pCi/g	87%	*-0.01*	9/27/11 08:05 p		1.0	ALP39
						1.85E-02	1.00E+00	*-0.05*			g	
PU239/40	***-3.56E-03***	U	7.1E-02	7.1E-02	1.48E-01	pCi/g	87%	*-0.02*	9/27/11 08:05 p		1.0	ALP39
						2.61E-02	1.00E+00	*-0.1*			g	
Batch: 1258057	7196_CR6			**Work Order:**	MMERA1AA		**Report DB ID:**	9MMERA10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	9/15/11 09:15 a		2.5017	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 30-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 8:45:00 AM
Lot-Sample No.:	J1I130490-2	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC4	**COC No. :**	RC-075-260	**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: 1257078	SRTOT_SEP_PRECIP_GPC			**Work Order:** MMERE1AD			**Report DB ID:** 9MMERE10					
STRONTIUM	***1.91E-02***	U	5.8E-02	5.9E-02	1.34E-01	pCi/g	70%	*0.14*	9/29/11 02:43 p		6.0	GPC26D
						6.20E-02		*0.65*			g	
Batch: 1257080	GAMMA_GS			**Work Order:** MMERE1AH			**Report DB ID:** 9MMERE10					
AMERICIUM 241	***3.77E-02***	U	9.1E-02	9.1E-02	1.62E-01	pCi/g		*0.23*	9/15/11 08:33 p		373.6	GER11$1
								0.83			g	
CO-60	***2.57E-04***	U	1.3E-02	1.3E-02	2.34E-02	pCi/g		*0.01*	9/15/11 08:33 p		373.6	GER11$1
							5.00E-02	*0.04*			g	
CS-137	***9.89E-03***	U	1.5E-02	1.5E-02	2.71E-02	pCi/g		*0.36*	9/15/11 08:33 p		373.6	GER11$1
							1.00E-01	*(1.3)*			g	
EU-152	***1.48E-03***	U	3.4E-02	3.4E-02	5.70E-02	pCi/g		*0.03*	9/15/11 08:33 p		373.6	GER11$1
							1.00E-01	*0.09*			g	
EU-154	***4.12E-02***	U	4.8E-02	4.8E-02	8.86E-02	pCi/g		*0.47*	9/15/11 08:33 p		373.6	GER11$1
							1.00E-01	*(1.7)*			g	
EU-155	***6.58E-02***	U	4.1E-02	4.1E-02	7.18E-02	pCi/g		*0.92*	9/15/11 08:33 p		373.6	GER11$1
							1.00E-01	*(3.2)*			g	
Batch: 1257081	906.0_H3_LSC			**Work Order:** MMERE1AG			**Report DB ID:** 9MMERE10					
H-3	***1.02E-02***	U	1.6E-02	1.8E-02	3.83E-02	pCi/g	100%	*0.27*	9/21/11 01:14 p		101.09	LSC4
						1.83E-02	4.00E+02	*(1.1)*			g	
Batch: 1257082	NI63_LSC			**Work Order:** MMERE1AE			**Report DB ID:** 9MMERE10					
NI-63	***7.07E+00***	U	5.3E+00	6.6E+00	1.23E+01	pCi/g	95%	*0.57*	9/27/11 04:48 p		0.25	LSC3
						5.75E+00	3.00E+01	*(2.2)*			g	

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 30-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 8:45:00 AM
Lot-Sample No.:	J1I130490-2	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC4	**COC No. :**	RC-075-260	**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: 1257083	C14_CHEM_LSC			**Work Order:**	MMERE1AJ		**Report DB ID:**	9MMERE10				
C-14	***7.72E-02***	U	1.9E-01	2.2E-01	4.64E-01	pCi/g	100%	*0.17*	9/21/11 05:10 a		5.008	LSC3
						2.19E-01	5.00E+01	*0.7*			g	
Batch: 1257085	UISO_IE_PLATE_AEA			**Work Order:**	MMERE1AC		**Report DB ID:**	9MMERE10				
U-234	***1.30E-01***	U	1.3E-01	1.3E-01	1.53E-01	pCi/g	84%	*0.85*	9/29/11 01:55 p		1.03	ALP4
						3.85E-02	1.00E+00	*(2.)*			g	
U-235	***-1.40E-03***	U	5.6E-02	5.6E-02	1.05E-01	pCi/g	84%	*-0.01*	9/29/11 01:55 p		1.03	ALP4
						1.45E-02	1.00E+00	*-0.05*			g	
U-238	***2.99E-01***		1.9E-01	2.0E-01	1.47E-01	pCi/g	84%	*(2.)*	9/29/11 01:55 p		1.03	ALP4
						3.56E-02	1.00E+00	*(3.1)*			g	
							Ratio U-234/238 = 0.4					
Batch: 1257086	PUISO_PLATE_AEA			**Work Order:**	MMERE1AF		**Report DB ID:**	9MMERE10				
PU-238	***-2.69E-03***	U	5.4E-02	5.4E-02	1.13E-01	pCi/g	100%	*-0.02*	9/27/11 08:06 p		1.02	ALP41
						1.98E-02	1.00E+00	*-0.1*			g	
PU239/40	***2.56E-02***	U	5.4E-02	5.4E-02	1.01E-01	pCi/g	100%	*0.25*	9/27/11 08:06 p		1.02	ALP41
						1.40E-02	1.00E+00	*0.94*			g	
Batch: 1258057	7196_CR6			**Work Order:**	MMERE1AA		**Report DB ID:**	9MMERE10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	9/15/11 09:15 a		2.501	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 30-Sep-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 9:45:00 AM
Lot-Sample No.:	J1I130490-1	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC3	**COC No. :**	RC-075-260	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1258057	7196_CR6			**Work Order:** MMERA1AP		**Report DB ID:** MMERA1ER			**Orig Sa DB ID:** 9MMERA10			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	9/15/11 09:15 a		2.5044	
	1.55E-01	U	**RPD** 0.0			3.50E-01		N/A			g	

No. of Results: 1 **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: 30-Sep-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 9:45:00 AM
Lot-Sample No.:	J1I130490-1	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC3 DUP	**COC No. :**		**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1257081	906.0_H3_LSC			**Work Order:**	MMERA1AK	**Report DB ID:**	MMERA1KR		**Orig Sa DB ID:** 9MMERA10			
H-3	3.62E-02	U	1.9E-02	2.1E-02	4.20E-02	pCi/g	100%	0.86	9/21/11 11:50 a		85.9	LSC4
	3.58E-02	U	**RPD**	**1.1**		4.00E+02		(3.5)			g	
Batch: 1257083	C14_CHEM_LSC			**Work Order:**	MMERA1AL	**Report DB ID:**	MMERA1LR		**Orig Sa DB ID:** 9MMERA10			
C-14	1.06E-01	U	1.9E-01	2.2E-01	4.62E-01	pCi/g	100%	0.23	9/21/11 04:48 a		5.036	LSC3
	1.64E-01	U	**RPD**	**43.0**		5.00E+01		0.96			g	
Batch: 1257086	PUISO_PLATE_AEA			**Work Order:**	MMERA1AM	**Report DB ID:**	MMERA1MR		**Orig Sa DB ID:** 9MMERA10			
PU-238	0.00E+00	U	0.0E+00	6.2E-02	1.17E-01	pCi/g	100%	0.	9/27/11 08:05 p		1.03	ALP40
	-1.78E-03	U	**RPD**	**-200.0**		1.00E+00		0.			g	
PU239/40	3.11E-02	U	6.2E-02	6.3E-02	1.17E-01	pCi/g	100%	0.27	9/27/11 08:05 p		1.03	ALP40
	-3.56E-03	U	**RPD**	**251.6**		1.00E+00		0.99			g	

Alpha Spec Result Sum = 3.1E-02

No. of Results: 4 **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: 30-Sep-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01275	**Collection Date:**	9/12/2011 8:45:00 AM
Lot-Sample No.:	J1I130490-2	**Report No. :**	48631	**Received Date:**	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC4 DUP	**COC No. :**		**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1257078	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MMERE1AK	**Report DB ID:**	MMERE1KR		**Orig Sa DB ID:** 9MMERE10			
STRONTIUM	4.26E-02	U	6.1E-02	6.2E-02	1.34E-01	pCi/g	66%	0.32	9/29/11 02:43 p		6.04	GPC27A
	1.91E-02	U	**RPD**	**76.2**				(1.4)			g	
Batch: 1257080	GAMMA_GS			**Work Order:**	MMERE1AL	**Report DB ID:**	MMERE1LR		**Orig Sa DB ID:** 9MMERE10			
AMERICIUM 241	-5.41E-02	U	1.9E-01	1.9E-01	3.04E-01	pCi/g		-0.18	9/16/11 12:43 a		348.0	GER13$1
	3.77E-02	U	**RPD**	**-1123.0**				-0.58			g	
CO-60	-1.06E-02	U	1.8E-02	1.8E-02	2.94E-02	pCi/g		-0.36	9/16/11 12:43 a		348.0	GER13$1
	2.57E-04	U	**RPD**	**-209.9**		5.00E-02		-(1.2)			g	
CS-137	1.03E-02	U	2.0E-02	2.0E-02	3.53E-02	pCi/g		0.29	9/16/11 12:43 a		348.0	GER13$1
	9.89E-03	U	**RPD**	**4.1**		1.00E-01		(1.)			g	
EU-152	-9.72E-03	U	5.1E-02	5.1E-02	8.42E-02	pCi/g		-0.12	9/16/11 12:43 a		348.0	GER13$1
	1.48E-03	U	**RPD**	**-271.6**		1.00E-01		-0.38			g	
EU-154	2.69E-02	U	6.2E-02	6.2E-02	1.11E-01	pCi/g		0.24	9/16/11 12:43 a		348.0	GER13$1
	4.12E-02	U	**RPD**	**41.9**		1.00E-01		0.87			g	
EU-155	2.08E-02	U	5.7E-02	5.7E-02	9.69E-02	pCi/g		0.21	9/16/11 12:43 a		348.0	GER13$1
	6.58E-02	U	**RPD**	**103.9**		1.00E-01		0.73			g	
Batch: 1257082	NI63_LSC			**Work Order:**	MMERE1AM	**Report DB ID:**	MMERE1MR		**Orig Sa DB ID:** 9MMERE10			
NI-63	2.21E+00	U	5.0E+00	6.1E+00	1.22E+01	pCi/g	97%	0.18	9/27/11 05:11 p		0.25	LSC3
	7.07E+00	U	**RPD**	**104.8**		3.00E+01		0.73			g	
Batch: 1257085	UISO_IE_PLATE_AEA			**Work Order:**	MMERE1AN	**Report DB ID:**	MMERE1NR		**Orig Sa DB ID:** 9MMERE10			

TestAmerica
rptSTLRchDupV5.2
.15 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: 30-Sep-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	SDG:	J01275	Collection Date:	9/12/2011 8:45:00 AM
Lot-Sample No.:	J1I130490-2	Report No. :	48631	Received Date:	9/13/2011 12:40:00 PM
Client Sample ID:	J1KVC4 DUP	COC No. :		Matrix:	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.82E-02	U	5.7E-02	5.7E-02	1.06E-01	pCi/g	81%	0.27	9/29/11 01:55 p		1.02	ALP8
	1.30E-01	U	RPD	128.6		1.00E+00		0.99			g	
U-235	2.82E-02	U	5.7E-02	5.7E-02	1.06E-01	pCi/g	81%	0.27	9/29/11 01:55 p		1.02	ALP8
	-1.40E-03	U	RPD	220.8		1.00E+00		0.99			g	
U-238	1.69E-01		1.4E-01	1.4E-01	1.06E-01	pCi/g	81%	(1.6)	9/29/11 01:55 p		1.02	ALP8
	2.99E-01		RPD	55.4		1.00E+00		(2.4)			g	

Ratio U-234/238 = 0.2 *Alpha Spec Result Sum = 2.3E-01*

No. of Results: 11 Comments:

TestAmerica RPD - Relative Percent Difference.

rptSTLRchDupV5.2 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

.15 A2002 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 30-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01275

Report No. : 48631

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: 1258057	7196_CR6			**Work Order:**	MMF2L1AA		**Report DB ID:**	MMF2L1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	9/15/11 09:15 a		2.5	
						1.55E-01		N/A			g	
Batch: 1257083	C14_CHEM_LSC			**Work Order:**	MME8J1AA		**Report DB ID:**	MME8J1AB				
C-14	3.55E-03	U	4.9E-03	5.6E-03	1.16E-02	pCi/g	100%	0.31	9/21/11 05:33 a		200.0	LSC3
					5.49E-03	5.00E+01		(1.3)			g	
Batch: 1257086	PUISO_PLATE_AEA			**Work Order:**	MME8M1AA		**Report DB ID:**	MME8M1AB				
PU-238	0.00E+00	U	0.0E+00	7.5E-02	1.41E-01	pCi/g	88%	0.	9/27/11 08:06 p		1.0	ALP42
					1.95E-02	1.00E+00		0.			g	
PU239/40	-1.88E-03	U	7.5E-02	7.5E-02	1.41E-01	pCi/g	88%	-0.01	9/27/11 08:06 p		1.0	ALP42
					1.95E-02	1.00E+00		-0.05			g	
Batch: 1257085	UISO_IE_PLATE_AEA			**Work Order:**	MME8L1AA		**Report DB ID:**	MME8L1AB				
U-234	0.00E+00	U	0.0E+00	7.0E-02	1.32E-01	pCi/g	65%	0.	9/29/11 01:55 p		0.99	ALP9
					1.83E-02	1.00E+00		0.			g	
U-235	0.00E+00	U	0.0E+00	7.0E-02	1.32E-01	pCi/g	65%	0.	9/29/11 01:55 p		0.99	ALP9
					1.83E-02	1.00E+00		0.			g	
U-238	0.00E+00	U	0.0E+00	7.0E-02	1.32E-01	pCi/g	65%	0.	9/29/11 01:55 p		0.99	ALP9
					1.83E-02	1.00E+00		0.			g	
Batch: 1257082	NI63_LSC			**Work Order:**	MME8H1AA		**Report DB ID:**	MME8H1AB				
NI-63	2.25E+00	U	5.3E+00	6.3E+00	1.38E+01	pCi/g	98%	0.16	9/27/11 05:35 p		0.25	LSC3
					6.42E+00	3.00E+01		0.71			g	
Batch: 1257081	906.0_H3_LSC			**Work Order:**	MME8G1AA		**Report DB ID:**	MME8G1AB				

TestAmerica
rptSTLRchBlank
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 30-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG:

Report No. : 48631

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
H-3	1.06E-03	U	1.5E-02	1.7E-02	3.56E-02	pCi/g	100%	0.03	9/21/11 02:36 p		91.9	LSC4
					1.70E-02	4.00E+02		0.13			g	
Batch: 1257080	GAMMA_GS			**Work Order:**	MME8F1AA		**Report DB ID:**	MME8F1AB				
AMERICIUM 241	-1.02E-02	U	2.5E-02	2.5E-02	4.27E-02	pCi/g		-0.24	9/16/11 12:44 a		348.0	GER14$1
								-0.81			g	
CO-60	4.68E-04	U	1.4E-02	1.4E-02	2.52E-02	pCi/g		0.02	9/16/11 12:44 a		348.0	GER14$1
						5.00E-02		0.07			g	
CS-137	-2.65E-03	U	1.6E-02	1.6E-02	2.80E-02	pCi/g		-0.09	9/16/11 12:44 a		348.0	GER14$1
						1.00E-01		-0.33			g	
EU-152	-8.42E-03	U	4.5E-02	4.5E-02	7.64E-02	pCi/g		-0.11	9/16/11 12:44 a		348.0	GER14$1
						1.00E-01		-0.38			g	
EU-154	-3.28E-02	U	4.5E-02	4.5E-02	7.31E-02	pCi/g		-0.45	9/16/11 12:44 a		348.0	GER14$1
						1.00E-01		-(1.5)			g	
EU-155	6.92E-03	U	3.5E-02	3.5E-02	6.07E-02	pCi/g		0.11	9/16/11 12:44 a		348.0	GER14$1
						1.00E-01		0.39			g	
Batch: 1257078	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MME8D1AA		**Report DB ID:**	MME8D1AB				
STRONTIUM	8.84E-03	U	4.8E-02	4.8E-02	1.12E-01	pCi/g	88%	0.08	9/29/11 02:43 p		6.02	GPC27B
					5.22E-02			0.37			g	

No. of Results: 16 **Comments:**

TestAmerica
rptSTLRchBlank
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 30-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01275

Report No. : 48631

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: 1258057	7196_CR6			**Work Order:**	MMF2L1AC		**Report DB ID:**	MMF2L1AS					
HEXCHROME	1.94E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		97%	9/15/11 09:15 a	2.5	
							Rec Limits:	80	120	0.0		g	
Batch: 1257083	C14_CHEM_LSC			**Work Order:**	MME8J1AC		**Report DB ID:**	MME8J1CS					
C-14	7.39E+00		4.2E-01	5.3E-01	4.66E-01	pCi/g	100%	7.26E+00	1.2E-01	102%	9/21/11 05:56 a	5.0	LSC3
							Rec Limits:	70	130	0.0		g	
Batch: 1257086	PUISO_PLATE_AEA			**Work Order:**	MME8M1AC		**Report DB ID:**	MME8M1CS					
PU239/40	6.67E+00		8.6E-01	1.6E+00	1.24E-01	pCi/g	100%	6.66E+00	2.0E-01	100%	9/27/11 08:06 p	1.03	ALP43
							Rec Limits:	70	130	0.0		g	
Batch: 1257085	UISO_IE_PLATE_AEA			**Work Order:**	MME8L1AC		**Report DB ID:**	MME8L1CS					
U-234	2.59E+00		5.1E-01	7.4E-01	9.50E-02	pCi/g	94%	3.15E+00	9.7E-02	82%	9/29/11 01:55 p	1.03	ALP10
							Rec Limits:	70	130	-0.2		g	
U-238	2.71E+00		5.2E-01	7.6E-01	9.50E-02	pCi/g	94%	3.30E+00	1.0E-01	82%	9/29/11 01:55 p	1.03	ALP10
							Rec Limits:	70	130	-0.2		g	
Batch: 1257082	NI63_LSC			**Work Order:**	MME8H1AC		**Report DB ID:**	MME8H1CS					
NI-63	4.61E+02		1.7E+01	4.7E+01	1.20E+01	pCi/g	97%	6.14E+02	7.0E+00	75%	9/27/11 05:58 p	0.25	LSC3
							Rec Limits:	70	130	-0.3		g	
Batch: 1257081	906.0_H3_LSC			**Work Order:**	MME8G1AC		**Report DB ID:**	MME8G1CS					
H-3	2.87E-01		2.4E-02	2.6E-02	3.55E-02	pCi/g	100%	2.91E-01	8.7E-03	99%	9/21/11 03:59 p	92.9	LSC4
							Rec Limits:	70	130	0.0		g	
Batch: 1257080	GAMMA_GS			**Work Order:**	MME8F1AC		**Report DB ID:**	MME8F1CS					
CS-137	1.06E+00		1.5E-01	1.5E-01	3.97E-02	pCi/g		1.07E+00	1.1E-02	99%	9/16/11 12:45 a	350.1	GER7$1
							Rec Limits:	70	130	0.0		g	

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

rptSTLRchLcs
V5.2.15 A2002

FORM II

LCS RESULTS

Date: 30-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01275

Report No. : 48631

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: 1257078	SRTOT_SEP_PRECIP_GPC			**Work Order:** MME8D1AC			**Report DB ID:** MME8D1CS						
STRONTIUM	1.12E+00		1.3E-01	3.2E-01	1.18E-01	pCi/g	87%	1.12E+00	1.3E-02	100%	9/29/11 02:43 p	6.02	GPC27C
							Rec Limits:	70	130	0.0		g	

No. of Results: 9 **Comments:**

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

rptSTLRchLcs
V5.2.15 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 30-Sep-11

Lab Name: TestAmerica **SDG:** J01275

Lot-Sample No.: J1I130490-1, J1KVC3 **Report No. :** 48631 **Matrix:** SOIL

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: 1258057	Work Order:	MMERA1AN		Report DB ID:	MMERA1CW		Orig Sa DB ID:	9MMERA10				
HEXCHROME	8.96E+00			0.0E+00	1.55E-01	mg/kg	N/A	88.84%	1.01E+01	9/15/11 09:15 a	2.5003	7196_CR6
	1.55E-01										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.15 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

9/30/2011 7:35:44 AM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257086; RPUISO Pulso by ALP
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:

First Level John Norris **Date** 9-30-11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257086

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: Rhonda Ware Date: 9/30/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/30/2011 8:58:06 AM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257085; RUISO Also by ALP
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:

First Level Lisa Anderson Date 9/30/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257085

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: Rhonda Wyatt Date: 9/30/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/30/2011 9:05:16 AM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257078; RSRTOT SrTot by GPC
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:

First Level Tina Anderson Date 9/30/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257078

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: 9/30/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/22/2011 3:47:29 PM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257080; RGAMMA Gamma by GER
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:
Please see NCM #10-19255

First Level [signature] **Date** 9-22-11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257080

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: See NCM 10-19255

Second Level Review: Sandra Leger Date: 9/27/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-19255**
NCM Initiated By: John Norton
Date Opened: 09/22/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J1I130490 (1,2), J1I140000 (80),
QC Batches: 1257080,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
John Norton	09/22/2011	Some of the samples in the batch did not meet the CRDL.

Corrective Action

Name	Date	Corrective Action
John Norton	09/22/2011	Due to the priority nature of the data the results will be presented to the client, the samples can be re-counted for a longer time frame at client request.

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: 9/22/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/22/2011 10:18:41 AM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257081; RTRITIUM H-3 by LSC
SDG, Matrix: J01275; SOIL

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A

4.0 Raw Data

4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A

5.0 Other

5.1 Are all nonconformances included and noted?	Yes	No	N/A ✓
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:

First Level Lisa Wilson Date 9/20/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257081

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: _____

Second Level Review: Sandra Segen Date: 9/27/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/29/2011 4:50:41 PM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257083; RC14 C-14 by LSC
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:

First Level John Martin **Date** 9-30-11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257083

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= 50.0pCi/g

Second Level Review: Rhonda Wyan Date: 9/30/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/29/2011 11:10:28 AM

Lot No., Due Date: J1I130490; 10/04/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1257082; RNI63 NI-63 by LSC
SDG, Matrix: J01275; SOIL

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

6.0 Comments on any No response:

First Level John Norton Date 9.29.11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1257082

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=30.0pCi/g

Second Level Review: [signature] Date: 9/29/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1258057

Lab Sample Numbers or SDG: **J01275**

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?	✓			✓
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 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: H.R Date: 9-19-11

Second-Level Review: Date: 9/19/11

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-075-260	Page 1 of 2

Collector: Q Stowe	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 118-D-2:1 Burial Ground- Focus Samples		SAF No.: RC-075
Ice Chest No.: NA	Field Logbook No.: EL-1607-12	COA: R118D22000	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Rad < DOT

Special Handling and/or Storage

Cool 4 Deg. C

J01275

J1I130490 J1I130490

Due 10-4-11

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None	None
Type of Container	G/P	G/P	G	aG	aG	aG	G/P	G/P	G/P	G/P
No. of Container(s)	1	1	1	1	1	1	1	0	0	0
Volume	60mL	60mL	120mL	125mL	120mL	125mL	1000mL	1000mL	1000mL	1000mL
	See item (1) in Special Instructions.	Chromium Hex - 7196	TPH-Diesel Range - WTPH-D+	PAHs - 8310	PCBs - 8082	Chloro-Herbicides - EPA8151	See item (2) in Special Instructions	Carbon-14, Tritium - H3	Nickel-63, Strontium-89,90 -- Total Sr	Isotopic Plutonium
								RCF 27384		

Sample No.	Matrix *	Sample Date	Sample Time									
~~J1KVC0~~	~~SOIL~~											
~~J1KVC1~~	~~SOIL~~											
~~J1KVC2~~	~~SOIL~~											
J1KVC3 MMERA	SOIL	9/12/11	0945		X					X	X	X	X
J1KVC4 MMERE	SOIL	9/12/11	0845		X					X	X	X	X

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	9/12/11 1400	D. Newman	9/12/11 1400
D Newman	9/12/11 1630	Gregory Bingham	1060#2 9-12-11 1630
Gregory Bingham	1060#2 WCH 9-13-11 1240	T. Lock	TALL 9-13-11 1240

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) {Mercury}

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY AJ DATE 9-13-11

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-075-260	Page 2 of 2

Collector: Q Stowe	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 118-D-2:1 Burial Ground- Focus Samples		SAF No.: RC-075
Ice Chest No.: NA	Field Logbook No.: EL-1607-12	COA: R118D22000	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Rad < DOT

Special Handling and/or Storage

~~Cool + Deg. C~~ 9.12.11 None cmp

J1I130490

LE ANALYSIS

RCF 27384

Sample No.	Matrix *	Sample Date	Sample Time	Preservation: None	Type of Container: G/P	No. of Container(s): 0	Volume: 1000mL	Isotopic Uranium
~~J1KVC0~~	~~SOIL~~							
~~J1KVC1~~	~~SOIL~~							
~~J1KVC2~~	~~SOIL~~							
J1KVC3	SOIL	9/12/11	0945					X
J1KVC4	SOIL	9/12/11	0845					X

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Quincy Stowe	9/12/11 1400	Received By/Stored In: D. Newman Dennewman	9/12/11 1400
Relinquished By/Removed From: D Newman Dennewman	Date/Time 9/12/11 1630	Received By/Stored In: Chandra Burnham	Date/Time 9-12-11 1630
Relinquished By/Removed From: Chandra Burnham WCH	Date/Time 9-13-11 1240	Received By/Stored In: Jack Jack TALL	Date/Time 9-13-11 1240
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 AJ
DATE 9-13-11

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

Apex™

Analysis Report for RCF27384

J1FJP9 SAF:RC-074 100D/118-D-2 EXCAVATION AREA 3, EX3-4

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF27384
Sample Description	: J1FJP9 SAF:RC-074 100D/118-D-2 EXCAVATION AREA 3, EX3-4
Sample Type	: 80g pillbox
Sample Size	: 6.200E+01 grams
Facility	: Default
Sample Taken On	: 3/22/2011 10:50:00AM
Acquisition Started	: 3/23/2011 9:44:37AM
Procedure	: 80 Gram Pill Box
Operator	: RCT
Detector Name	: PGTLYNX
Geometry	: 80 Gram Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3602.5 seconds
Dead Time	: 0.07 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 3/3/2011
Efficiency Calibration Used Done On	: 3/11/2011
Efficiency Calibration Description	: PGTL 80gPB 030811EC SN82752-238
Sample Number	: 12874

INTERFERENCE CORRECTED REPORT

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40		0.998	1.18E+01	2.56E+00	
PB-212		0.710	8.16E-01	1.58E-01	
RA-226d	@	0.621	5.61E-01	1.32E-01	
TH-232d		0.673	5.90E-01	1.38E-01	
U-238d		0.339	1.35E+00	8.21E-01	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 9-13-11 | 1240 GM Screen Result: (Airlock) .06 Initials[RB]
(Sample Receiving) .04 Initials[RB]

Client: WCH SDG #: J01275 NA [ ] SAF #: RL-075 NA [ ]

Lot Number: J11130490

Chain of Custody # RL-075-260

Shipping Container ID: hand deliv. NA [ ]

Samples received inside shipping container/cooler/box Yes [RB] Continue with 1 through 4. Initial appropriate response.

No [ ] Go to 5, add comment to #16.

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [RB] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 x 60 mL AG; 2 x LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [RB]
9. Samples have:
   ____ tape
   RB custody seals
   ____ hazard labels
   RB appropriate sample labels
10. Matrix:
    RB A (FLT, Wipe, Solid, Soil)
    ____ S (Air, Niosh 7400)
    ____ I (Water)
    ____ T (Biological, Ni-63)
11. Samples:
    RB are in good condition
    ____ are broken
    ____ are leaking
    ____ have air bubbles (Only for samples requiring no head space)
    ____ Other
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [RB]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)

    RPL ID # of preservative used :
13. Were any anomalies identified in sample receipt? Yes [ ] No [RB]
14. Description of anomalies (include sample numbers): NA [RB]

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

15. Sample Location, Sample Collector Listed on COC? * Yes [✓] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information: _____

[ ] Client/Courier denied temperature check. [✓] Client/Courier unpack cooler.

Sample Custodian: [signature] / 1240 Date: 9-13-11

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 9/14/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

L. Bode 9-13-11

L. Bode 9-13-11

See over for additional information.

9/19/2011 6:28:39 PM

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

Pipet #: _____

AnalyDueDate: 10/04/2011 JO1275

Sep1 DT/Tm Tech:

Batch: 1257086 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

TestAmerica Laboratories, Inc.

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 MMERA-1-AF J1I130490-1-SAMP 09/12/2011 09:45	AmtRec: 1X60MLAG;1XLP	1.00g,in	PUTC12461 08/02/11,pd 01/01/10,r #Containers: 2	50min		Scr:	Alpha:	Beta:
2 MMERA-1-AM-X J1I130490-1-DUP 09/12/2011 09:45	AmtRec: 1X60MLAG;1XLP	1.03g,in	PUTC12462 08/02/11,pd 01/01/10,r #Containers: 2			Scr:	Alpha:	Beta:
3 MMERE-1-AF J1I130490-2-SAMP 09/12/2011 08:45	AmtRec: 1X60MLAG;1XLP	1.02g,in	PUTC12463 08/02/11,pd 01/01/10,r #Containers: 2			Scr:	Alpha:	Beta:
4 MME8M-1-AA-B J1I140000-86-BLK 09/14/2011 11:01 pd	AmtRec:	1.00g,in	PUTC12464 08/02/11,pd 01/01/10,r #Containers: 1			Scr:	Alpha:	Beta:
5 MME8M-1-AC-C J1I140000-86-LCS 09/14/2011 11:01 pd	AmtRec:	1.03g,in	PUSK0880 08/02/11,pd 01/01/10,r #Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

MMERA1AF-SAMP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

Sample Preparation/Analysis

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

Balance Id:1120373922
Pipet #: _____

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257086 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

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:

```
  Pu-242      RDL:          pCi/g    LCL:20     UCL:105    RPD:35
MME8M1AA-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
MME8M1AC-LCS:
  PU-239      RDL:1         pCi/g    LCL:70     UCL:130    RPD:35     Pu-242     RDL:       pCi/g    LCL:20     UCL:105    RPD:35

MMERA1AF-SAMP Calc Info:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MME8M1AA-BLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MME8M1AC-LCS:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

9/30/2011 8:12:37 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/30/2010, 10/5/2011, Batch: '1257086', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257086						
AC		Rev1C	SannohS	9/19/2011 6:17:43 PM		
SC			MaucierlS	IsBatched	9/14/2011 11:02:48 AM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	9/19/2011 6:17:43 PM	RL-PRP-003 Revision 2
SC			WoodT	InPrep2	9/20/2011 4:39:13 AM	RL-PRP-003 REVISION 2
SC			WoodT	Prep1C	9/20/2011 4:40:35 AM	RL-PRP-003 REVISION 2
SC			BouslaughP	Prep1C	9/20/2011 10:15:55 AM	RL-PRP-003 REVISION 2
SC			JorgensonD	Sep1C	9/26/2011 2:54:07 PM	RL-ALP-001 REVISION 3
SC			LuksicS	Sep2C	9/27/2011 5:00:19 PM	RL-ALP-016 REVISION 1
SC			DawkinsO	InCnt1	9/27/2011 6:11:43 PM	RL-CI-008 REVISION 1
SC			DawkinsO	CalcC	9/28/2011 12:05:29 AM	RL-CI-008 REVISION 1
SC			nortonj	Rev1C	9/30/2011 7:34:38 AM	RL-DR-001 Rev 2
AC			WoodT	9/20/2011 4:39:13		
AC			WoodT	9/20/2011 4:40:35		
AC			BouslaughP	9/20/2011 10:15:55		
AC			JorgensonD	9/26/2011 2:54:07 PM		
AC			LuksicS	9/27/2011 5:00:19 PM		
AC			DawkinsO	9/27/2011 6:11:43 PM		
AC			DawkinsO	9/28/2011 12:05:29		
AC			nortonj	9/30/2011 7:34:38		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 9

ICOCFractions v4.8.44

9/19/2011 5:56:13 PM

Sample Preparation/Analysis

Balance Id:1120373922

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

7S Uiso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/04/2011 JO 1275

Sep1 DT/Tm Tech:

Batch: 1257085 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

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 MMERA-1-AC J1I130490-1-SAMP 09/12/2011 09:45	AmtRec: 1X60MLAG;1XLP	1.03g,in	UITC26953 07/27/11,pd 06/15/01,r #Containers: 2	50 Min		Scr:	Alpha:	Beta:
2 MMERE-1-AC J1I130490-2-SAMP 09/12/2011 08:45	AmtRec: 1X60MLAG;1XLP	1.03g,in	UITC26954 07/27/11,pd 06/15/01,r #Containers: 2			Scr:	Alpha:	Beta:
3 MMERE-1-AN-X J1I130490-2-DUP 09/12/2011 08:45	AmtRec: 1X60MLAG;1XLP	1.02g,in	UITC26955 07/27/11,pd 06/15/01,r #Containers: 2			Scr:	Alpha:	Beta:
4 MME8L-1-AA-B J1I140000-85-BLK 09/14/2011 11:01 pd	AmtRec:	0.99g,in	UITC26956 07/27/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:
5 MME8L-1-AC-C J1I140000-85-LCS 09/14/2011 11:01 pd	AmtRec:	1.03g,in	UISH1451 09/13/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

MMERA1AC-SAMP Constituent List:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1	pCi/g	LCL:	UCL:	RPD:

TestAmerica Laboratories, Inc.

Sample Preparation/Analysis

7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: _____

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257085 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

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:

```
 U-235      RDL:1        pCi/g    LCL:      UCL:      RPD:      U-238      RDL:1      pCi/g    LCL:      UCL:      RPD:

MME8L1AA-BLK:
 U-232      RDL:         pCi/g    LCL:20    UCL:105   RPD:35    U-234      RDL:1      pCi/g    LCL:      UCL:      RPD:
 U-235      RDL:1        pCi/g    LCL:      UCL:      RPD:      U-238      RDL:1      pCi/g    LCL:      UCL:      RPD:

MME8L1AC-LCS:
 U-232      RDL:         pCi/g    LCL:20    UCL:105   RPD:35    Uranium    RDL:       pCi/g    LCL:70    UCL:130   RPD:35

MMERA1AC-SAMP Calc Info:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MME8L1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MME8L1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```


TestAmerica Laboratories, Inc.

9/30/2011 8:56:40 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/30/2010, 10/5/2011, Batch: '1257085', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257085						
AC		Rev1C	SannohS	9/19/2011 5:43:23 PM		
SC			MaucieriS	IsBatched	9/14/2011 11:02:45 AM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	9/19/2011 5:43:23 PM	RL-PRP-003 Revision 2
SC			WoodT	InPrep2	9/20/2011 4:38:43 AM	RL-PRP-003 REVISION 2
SC			WoodT	Prep1C	9/20/2011 4:40:59 AM	RL-PRP-003 REVISION 2
SC			BouslaughP	Prep1C	9/20/2011 10:19:05 AM	RL-PRP-003 REVISION 2
SC			JorgensonD	Sep2C	9/21/2011 2:53:47 PM	RL-ALP-004 REVISION 2
SC			HoganH	Sep2C	9/29/2011 9:23:10 AM	RL-ALP-015 REVISION 2
SC			ClarkR	InCnt1	9/29/2011 9:40:40 AM	RL-CI-008 REVISION 1
SC			DawkinsO	CalcC	9/30/2011 2:12:40 AM	RL-CI-008 REVISION 1
SC			antonsonI	Rev1C	9/30/2011 8:55:08 AM	RL-DR-001 Rev 2
AC			WoodT	9/20/2011 4:38:43		
AC			WoodT	9/20/2011 4:40:59		
AC			BouslaughP	9/20/2011 10:19:05		
AC			JorgensonD	9/21/2011 2:53:47 PM		
AC			HoganH	9/29/2011 9:23:10		
AC			ClarkR	9/29/2011 9:40:40		
AC			DawkinsO	9/30/2011 2:12:40		
AC			antonsonI	9/30/2011 8:55:08		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 9

ICOCFractions v4.8.44

9/19/2011 6:12:19 PM

Sample Preparation/Analysis

Balance Id:1120373922

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

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

Pipet #:

AnalyDueDate: 10/04/2011 J01275

Sep1 DT/Tm Tech: 18:55 9/28/11 APA

Batch: 1257078 SOIL pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

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 MMERA-1-AD J1I130490-1-SAMP 09/12/2011 09:45		6.00g,in AmtRec: 1X60MLAG;1XLP	SRTA21803 08/29/11 #Containers: 2	1.5	1.4670g -1.4013g SD Min 65.7mg		26C Scr:	1503 Alpha:	9/27/11 m Beta:	
2 MMERE-1-AD J1I130490-2-SAMP 09/12/2011 08:45		6.00g,in AmtRec: 1X60MLAG;1XLP	SRTA21804 08/29/11 #Containers: 2		1.4610g -1.3915g 69.5mg		26D Scr:	Alpha:	Beta:	
3 MMERE-1-AK-X J1I130490-2-DUP 09/12/2011 08:45		6.04g,in AmtRec: 1X60MLAG;1XLP	SRTA21805 08/29/11 #Containers: 2		1.4498g -1.3837g 66.1mg		27A Scr:	Alpha:	Beta:	
4 MME8D-1-AA-B J1I140000-78-BLK 09/14/2011 11:01 pd		6.02g,in AmtRec:	SRTA21806 08/29/11 #Containers: 1		1.4791g -1.3910g 88.1mg		27B Scr:	Alpha:	Beta:	
5 MME8D-1-AC-C J1I140000-78-LCS 09/14/2011 11:01 pd		6.02g,in AmtRec:	STSB1667 09/07/11 #Containers: 1		1.4702g -1.3837g 86.5mg		27C Scr:	Alpha:	Beta:	

Comments:

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

MMERA1AD-SAMP Constituent List:
Sr-90 RDL:1 pCi/g LCL:70 UCL:130 RPD:35

9/19/2011 6:12:20 PM

Sample Preparation/Analysis

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

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257078 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: SannohS

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:

```
MME8D1AA-BLK:
  Sr-90        RDL:1          pCi/g     LCL:       UCL:       RPD:
MME8D1AC-LCS:
  Sr-90        RDL:1          pCi/g     LCL:70     UCL:130    RPD:35
MMERA1AD-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MME8D1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MME8D1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

9/30/2011 9:04:32 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/30/2010, 10/5/2011, Batch: '1257078', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257078						
AC		Rev1C	SannohS	9/19/2011 5:58:52 PM		
SC			MaucieriS	IsBatched	9/14/2011 11:02:25 AM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	9/19/2011 5:58:52 PM	RL-PRP-003 Revision 2
SC			WoodT	InPrep2	9/20/2011 4:39:09 AM	RL-PRP-003 REVISION 2
SC			WoodT	Prep1C	9/20/2011 4:40:40 AM	RL-PRP-003 REVISION 2
SC			BouslaughP	Prep1C	9/20/2011 10:16:50 AM	RL-PRP-003 REVISION 2
SC			AshworthA	Sep2C	9/28/2011 9:11:35 PM	RL-GPC-003 REVISION 1
SC			DawkinsO	InCnt1	9/28/2011 9:47:11 PM	RL-CI-006 REVISION 1
SC			BlackCL	CalcC	9/30/2011 12:29:12 AM	RL-CI-006 REVISION 1
SC			antonsonI	Rev1C	9/30/2011 9:04:22 AM	RL-DR-001 Rev 2
AC			WoodT	9/20/2011 4:39:09		
AC			WoodT	9/20/2011 4:40:40		
AC			BouslaughP	9/20/2011 10:16:50		
AC			AshworthA	9/28/2011 9:11:35 PM		
AC			DawkinsO	9/28/2011 9:47:11 PM		
AC			BlackCL	9/30/2011 12:29:12		
AC			antonsonI	9/30/2011 9:04:22		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.44

9/15/2011 9:58:07 AM

Sample Preparation/Analysis

Balance Id:1120421763

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

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

Pipet #: _____

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257080 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1257078 CHTH, 1257080 AXTA, 1257081 ATS6, 1257082 AFS4, 1257083 5SS3, 1257085 7SSR, 1257086 6ASO, 1258057 DWEA,

Prep Tech: ,BouslaughP

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MMERA-1-AH J1I130490-1-SAMP 09/12/2011 09:45			326.60g,in AmtRec: 1X60MLAG;1XLP	326.60g #Containers: 2		5200	200	G10 Scr:	2354 Alpha:	9/15/11 OAD Beta:	
2 MMERE-1-AH J1I130490-2-SAMP 09/12/2011 08:45			373.60g,in AmtRec: 1X60MLAG;1XLP	373.60g #Containers: 2				G11 Scr:	2353 Alpha:	Beta:	
3 MMERE-1-AL-X J1I130490-2-DUP 09/12/2011 08:45			348.00g,in AmtRec: 1X60MLAG;1XLP	348.00g #Containers: 2				G13 Scr:	0403 Alpha:	9/16/11 OAD Beta:	
4 MME8F-1-AA-B J1I140000-80-BLK 09/14/2011 11:01 pd			348.00g,in AmtRec:	348.00g #Containers: 1				G14 Scr:	0404 Alpha:	Beta:	
5 MME8F-1-AC-C J1I140000-80-LCS 09/14/2011 11:01 pd			350.10g,in AmtRec:	350.10g #Containers: 1	QC20009 08/04/09,pd 09/01/09,r			G7 Scr:	0405 Alpha:	Beta:	

Comments:

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

MMERA1AH-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

Sample Preparation/Analysis

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

Balance Id:1120421763
Pipet #: _____

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257080 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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:
MME8F1AA-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:
MME8F1AC-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						

MMERA1AH-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8F1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8F1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

57

9/22/2011 3:45:58 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/22/2010, 9/27/2011, Batch: '1257080', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257080						
AC		Rev1C	BouslaughP	9/15/2011 9:40:20		
SC			MauclerlS	IsBatched	9/14/2011 11:02:29 AM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	9/15/2011 9:40:20 AM	RL-GAM-001 REVISION 1
SC			BouslaughP	Prep1C	9/15/2011 10:04:50 AM	RL-GAM-001 REVISION 1
SC			ClarkR	InCnt1	9/15/2011 10:07:40 AM	RL-CI-007 REVISION 1
SC			ClarkR	CalcC	9/16/2011 11:39:41 AM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	9/22/2011 3:45:45 PM	RL-DR-001 Rev 2
AC			BouslaughP	9/15/2011 10:04:50		
AC			ClarkR	9/15/2011 10:07:40		
AC			ClarkR	9/16/2011 11:39:41		
AC			nortonj	9/22/2011 3:45:45 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

9/14/2011 11:01:30 AM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AT H-3 Prp/Sep LSC002
S6 Tritium by Liquid Scint
51 CLIENT: HANFORD

PRIORITY

AnalyDueDate: 10/04/2011

Batch: 1257081 SOIL pCi/g PM, Quote: RW2, 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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MMERA-1-AG J1I130490-1-SAMP 09/12/2011 09:45		AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
2 MMERA-1-AK-X J1I130490-1-DUP 09/12/2011 09:45		AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
3 MMERE-1-AG J1I130490-2-SAMP 09/12/2011 08:45		AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
4 MME8G-1-AA-B J1I140000-81-BLK 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 MME8G-1-AC-C J1I140000-81-LCS 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MME8G-1-AD-BN J1I140000-81-IBLK 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Sample Preparation/Analysis

AT H-3 Prp/Sep LSC002
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 10/04/2011

Batch: 1257081 **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:

Comments:

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

MMERA1AG-SAMP Constituent List:
H-3 RDL:400 pCi/g LCL:70 UCL:130 RPD:35
MME8G1AA-BLK:

MME8G1AC-LCS:

MME8G1AD-IBLK:

MMERA1AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8G1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8G1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8G1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

9/22/2011 10:18:00 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/22/2010, 9/27/2011, Batch: '1257081', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257081						
AC		**CalcC**	**DefordP**	9/20/2011 2:36:00 PM		
SC			MauclerlS	IsBatched	9/14/2011 11:02:33 AM	ICOC_RADCALC v4.8.49
SC			DefordP	Sep1C	9/20/2011 2:36:00 PM	RL-LSC-002 REVISION 1
SC			DawkinsO	InCnt1	9/20/2011 6:18:13 PM	RL-CI-005 REVISION 1
SC			DawkinsO	CalcC	9/21/2011 10:31:50 PM	RL-CI-005 REVISION 1
AC			**DawkinsO**	9/20/2011 6:18:13 PM		
AC			**DawkinsO**	9/21/2011 10:31:50		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 3

ICOCFractions v4.8.44

51

9/14/2011 11:01:31 AM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257083 SOIL pCi/g PRIORITY PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

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 MMERA-1-AJ J1I130490-1-SAMP 09/12/2011 09:45		5.024 AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
2 MMERA-1-AL-X J1I130490-1-DUP 09/12/2011 09:45		5.036 AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
3 MMERE-1-AJ J1I130490-2-SAMP 09/12/2011 08:45		5.008 AmtRec: 1X60MLAG;1XLP	#Containers: 2			Scr:	Alpha:	Beta:
4 MME8J-1-AA-B J1I140000-83-BLK 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 MME8J-1-AC-C J1I140000-83-LCS 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MME8J-1-AD-BN J1I140000-83-IBLK 09/14/2011 11:01 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

9/14/2011 11:01:32 AM

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 10/04/2011

Batch: 1257083 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:

Comments:

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

MMERA1AJ-SAMP Constituent List:
C-14 RDL:50 pCi/g LCL:70 UCL:130 RPD:35
MME8J1AA-BLK:

MME8J1AC-LCS:

MME8J1AD-IBLK:

MMERA1AJ-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8J1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8J1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MME8J1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

9/29/2011 4:49:58 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/29/2010, 10/4/2011, Batch: '1257083', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257083						
AC		Rev1C	DefordP	9/20/2011 2:35:28 PM		
SC			MaucierlS	IsBatched	9/14/2011 11:02:42 AM	ICOC_RADCALC v4.8.49
SC			DefordP	Sep1C	9/20/2011 2:35:28 PM	RL-LSC-008 REVISION 1
SC			WagnerF	Sep1C	9/20/2011 2:35:45 PM	RL-LSC-008 REVISION 1
SC			ClarkR	InCnt1	9/20/2011 3:50:49 PM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	9/21/2011 10:37:35 AM	RL-CI-005 REVISION 1
SC			norton|	Rev1C	9/29/2011 4:49:41 PM	RL-DR-001 Rev 2
AC			WagnerF	9/20/2011 2:35:45 PM		
AC			ClarkR	9/20/2011 3:50:49 PM		
AC			ClarkR	9/21/2011 10:37:35		
AC			norton|	9/29/2011 4:49:41 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

9/19/2011 6:46:07 PM

Sample Preparation/Analysis

Balance Id:1120373922

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 10/04/2011 J01275

Sep1 DT/Tm Tech:

Batch: 1257082 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MMERA-1-AE J1I130490-1-SAMP 09/12/2011 09:45		AmtRec: 1X60MLAG;1XLP	0.25g,in #Containers: 2	0.25g	NITA4390 07/29/11	20 min		Scr:	Alpha:	Beta:
2 MMERE-1-AE J1I130490-2-SAMP 09/12/2011 08:45		AmtRec: 1X60MLAG;1XLP	0.25g,in #Containers: 2	0.25g	NITA4391 07/29/11			Scr:	Alpha:	Beta:
3 MMERE-1-AM-X J1I130490-2-DUP 09/12/2011 08:45		AmtRec: 1X60MLAG;1XLP	0.25g,in #Containers: 2	0.25g	NITA4392 07/29/11			Scr:	Alpha:	Beta:
4 MME8H-1-AA-B J1I140000-82-BLK 09/14/2011 11:01 pd		AmtRec:	0.25g,in #Containers: 1	0.25g	NITA4393 07/29/11			Scr:	Alpha:	Beta:
5 MME8H-1-AC-C J1I140000-82-LCS 09/14/2011 11:01 pd		AmtRec:	0.25g,in #Containers: 1	0.25g	NISA1476 07/12/11			Scr:	Alpha:	Beta:
6 MME8H-1-AD-BN J1I140000-82-IBLK 09/14/2011 11:01 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

65

9/19/2011 6:46:08 PM

Sample Preparation/Analysis

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #:

AnalyDueDate: 10/04/2011

Sep1 DT/Tm Tech:

Batch: 1257082 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

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

Comments:

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

MMERA1AE-SAMP Constituent List:

Ni-63	RDL:30	pCi/g	LCL:70	UCL:130	RPD:35

MME8H1AA-BLK:

Ni-63	RDL:30	pCi/g	LCL:	UCL:	RPD:

MME8H1AC-LCS:

Ni-63	RDL:30	pCi/g	LCL:70	UCL:130	RPD:35

MME8H1AD-IBLK:

Ni-63	RDL:30	pCi/g	LCL:	UCL:	RPD:

MMERA1AE-SAMP Calc Info:

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

MME8H1AA-BLK:

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

MME8H1AC-LCS:

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

MME8H1AD-IBLK:

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

TestAmerica Laboratories, Inc.

9/29/2011 11:09:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/29/2010, 10/4/2011, Batch: '1257082', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1257082						
AC		Rev1C	SannohS	9/19/2011 6:34:38 PM		
SC			MaucieriS	IsBatched	9/14/2011 11:02:37 AM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	9/19/2011 6:34:38 PM	RL-PRP-003 Revision 2
SC			WoodT	InPrep2	9/20/2011 4:39:18 AM	RL-PRP-003 REVISION 2
SC			WoodT	Prep1C	9/20/2011 4:40:31 AM	RL-PRP-003 REVISION 2
SC			BouslaughP	Prep1C	9/20/2011 10:15:20 AM	RL-PRP-003 REVISION 2
SC			LuksicS	Sep2C	9/27/2011 10:29:46 AM	RL-LSC-017 REVISION 1
SC			ClarkR	InCnt1	9/27/2011 10:45:58 AM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	9/28/2011 5:46:26 AM	RL-CI-005 REVISION 1
SC			nortonj	Rev1C	9/29/2011 11:09:39 AM	RL-DR-001 Rev 2
AC			WoodT	9/20/2011 4:39:18		
AC			WoodT	9/20/2011 4:40:31		
AC			BouslaughP	9/20/2011 10:15:20		
AC			LuksicS	9/27/2011 10:29:46		
AC			ClarkR	9/27/2011 10:45:58		
AC			BlackCL	9/28/2011 5:46:26		
AC			nortonj	9/29/2011 11:09:39		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.44

43-44

9/15/2011 9:10:16 AM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)

Pipet #:

AnalyDueDate: 10/04/2011

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 1258057 SOIL mg/kg PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1257078 CHTH, 1257080 AXTA, 1257081 ATS6, 1257082 AFS4, 1257083 5SS3, 1257085 7SSR, 1257086 6ASO, 1258057 DWEA,

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 MMERA-1-AA J1I130490-1-SAMP 09/12/2011 09:45		2.5017 2.5019 AmtRec: 1X60MLAG;1XLP	#Containers: 2		H-R 9/15			Scr:	Alpha:	Beta:
2 MMERA-1-AN-S J1I130490-1-MS 09/12/2011 09:45		2.5003 2.5003 AmtRec: 1X60MLAG;1XLP	#Containers: 2		H-R 9/15			Scr:	Alpha:	Beta:
3 MMERA-1-AP-X J1I130490-1-DUP 09/12/2011 09:45		2.5044 / pbero4: 2.5040 AmtRec: 1X60MLAG;1XLP	#Containers: 2		2.5040 H-R 9/15			Scr:	Alpha:	Beta:
4 MMERE-1-AA J1I130490-2-SAMP 09/12/2011 08:45		2.5010 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
5 MMF2L-1-AA-B J1I150000-57-BLK 09/15/2011 09:10 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
6 MMF2L-1-AC-C J1I150000-57-LCS 09/15/2011 09:10 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

68

9/15/2011 9:10:16 AM

Sample Preparation/Analysis

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

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 10/04/2011

Batch: 1258057 mg/kg

SEQ Batch, Test: None

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

Comments:

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

MMERA1AA-SAMP Constituent List:
HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20
MMERA1AN-MS Constituent List:

MMF2L1AA-BLK:

MMF2L1AC-LCS:

MMERA1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MMERA1AN-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MMF2L1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MMF2L1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-20244-1

SDG Number: J01275

Job Description: SAF# RC-075

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

Attention: Joan H Kessner

RECEIVED
SEP 2011

Approved for release.
Kae E Yoder
Project Manager II
9/30/2011 3:32 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
09/30/2011

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

Table of Contents

Cover Title Page 1

Report Narrative 3

Data Qualifiers 5

Method Summary 6

Method / Analyst Summary 7

Sample Summary 8

Sample Results 9

Sample Datasheets 10

QC Results 24

Qc Association Summary 25

Qc Reports 29

Client Chain of Custody 47

Sample Receipt Checklist 48

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-20244-1

SDG #: J01275
SAF#: RC-075

Date SDG Closed: September 14, 2011
Data Deliverable: 21 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1KVC3	280-20244-1	6010/7471/WTPH-D+/8310/8082/8151	6010B/7471A/NWTPH-Dx/8310/8082/8151A
J1KVC4	280-20244-2	6010/7471/WTPH-D+/8310/8082/8151	6010B/7471A/NWTPH-Dx/8310/8082/8151A

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 9/14/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 3.6 C, 4.8 C and 3.4 C.

GC SEMIVOLATILES - SW846 8082 - PCBs
No anomalies were encountered.

GC SEMIVOLATILES - SW846 8151A - HERBICIDEs
The RPD between the primary and confirmation columns exceeded 40% for 2,4-DB in sample J1KVC3. The lower of the two values has been reported, as matrix interference is evident. The result has been flagged with an "X".

Low levels of 2,4-DB are present in the method blank associated with batch 280-86579. Because the concentration in the method blank is not present at a level greater than half the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO
No anomalies were encountered.

HPLC - SW846 8310 - PAHs
No anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-86535 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. The samples presented in this report required a 5X dilution prior to the analysis of Beryllium, Cobalt, Copper, Lead and Vanadium to minimize the interference caused by Titanium concentrations greater than the linear range. The reporting limits have been adjusted relative to the dilution required.

Low levels of Barium and Sodium are present in the method blank associated with batch 280-86535. Because the concentrations in the method blank are not present at levels greater than half the reporting limit or the associated sample amounts are twenty times greater than the method blank concentration, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1KVC3; therefore, control limits are not applicable.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Lab Section	Qualifier	Description
GC Semi VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	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.
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.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
HPLC/IC		
	U	Analyzed for but not detected.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction			SW846 3550C
Herbicides (GC)	TAL DEN	SW846 8151A	
Extraction (Herbicides)			SW846 8151A
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction			SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction			SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals			SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury			SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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: 280-20244-1
Sdg Number: J01275

Method	Analyst	Analyst ID
SW846 8082	Pavlakovich, Adam M	AMP
SW846 8151A	Wells, David	DW
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 7471A	Bowen, Heidi E	HEB
ASTM D-2216	Berry III, Paul B	PBB
SW846 8310	Fiedler, Heather K	HKF

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-20244-1	J1KVC3	Solid	09/12/2011 0945	09/14/2011 0900
280-20244-2	J1KVC4	Solid	09/12/2011 0845	09/14/2011 0900

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-87049	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	09/22/2011 2147			Injection Volume:	1 uL
Prep Date:	09/20/2011 2220			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	9.9
Aroclor 1221		8.0	U	8.0	16
Aroclor 1232		2.0	U	2.0	9.9
Aroclor 1242		4.6	U	4.6	9.9
Aroclor 1248		4.6	U	4.6	9.9
Aroclor 1254		2.6	U	2.6	9.9
Aroclor 1260		2.6	U	2.6	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	79		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Prep Method:	3550C	Prep Batch:	280-87049	Initial Weight/Volume:	31.5 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	09/22/2011 2251			Injection Volume:	1 uL
Prep Date:	09/20/2011 2220			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.6
Aroclor 1221		7.7	U	7.7	16
Aroclor 1232		1.9	U	1.9	9.6
Aroclor 1242		4.5	U	4.5	9.6
Aroclor 1248		4.5	U	4.5	9.6
Aroclor 1254		2.5	U	2.5	9.6
Aroclor 1260		2.5	U	2.5	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	93		59 - 130
Tetrachloro-m-xylene	96		53 - 128

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-86579	Initial Weight/Volume:	51.0 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/20/2011 0953			Injection Volume:	1 uL
Prep Date:	09/16/2011 2215			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U	14	79
2,4-DB		13	J B X	2.8	79
Dalapon		1.4	U	1.4	40
Dicamba		1.4	U	1.4	40
Dichlorprop		3.2	U	3.2	79
Dinoseb		1.4	U	1.4	12
MCPA		2000	U	2000	7900
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	7900

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	67		31 - 105

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-86579	Initial Weight/Volume:	52.0 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/20/2011 1107			Injection Volume:	1 uL
Prep Date:	09/16/2011 2215			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.2	U	2.2	19
2,4-Dichlorophenoxyacetic acid		14	U	14	78
2,4-DB		11	J B	2.7	78
Dalapon		1.4	U	1.4	39
Dicamba		1.4	U	1.4	39
Dichlorprop		3.1	U	3.1	78
Dinoseb		1.4	U	1.4	12
MCPA		1900	U	1900	7800
2,4,5-TP (Silvex)		1.4	U	1.4	19
MCPP		1900	U	1900	7800

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	71		31 - 105

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-86625	Lab File ID:	014F1401.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Analysis Date:	09/21/2011 1733			Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		1100	J	1000	4000
C10-C28		930	J	680	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	91		49 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-86625	Lab File ID:	015F1501.D
Dilution:	1.0			Initial Weight/Volume:	32.8 g
Analysis Date:	09/21/2011 1806			Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		920	U	920	3700
C10-C28		630	U	630	3700

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	103		49 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-87030	Initial Weight/Volume:	31.0 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	09/27/2011 0328			Injection Volume:	20 uL
Prep Date:	09/20/2011 2223			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.8	U	8.8	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.0	U	7.0	29
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.7	U	4.7	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	90		72 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-87030	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	09/27/2011 0358			Injection Volume:	20 uL
Prep Date:	09/20/2011 2223			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	96
Acenaphthylene		8.6	U	8.6	96
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.1	U	3.1	14
Benzo[a]pyrene		6.1	U	6.1	14
Benzo[b]fluoranthene		4.0	U	4.0	14
Benzo[g,h,i]perylene		6.9	U	6.9	29
Benzo[k]fluoranthene		3.8	U	3.8	14
Chrysene		4.6	U	4.6	38
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		12	U	12	38
Fluorene		5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene		11	U	11	29
Naphthalene		11	U	11	96
Phenanthrene		11	U	11	38
Pyrene		11	U	11	38

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

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-88139	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	09/27/2011 1526			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9250	X	1.4	4.5
Antimony		0.35	U	0.35	0.55
Arsenic		3.6		0.60	0.91
Barium		61.3	X	0.069	0.45
Boron		0.99	B	0.89	1.8
Cadmium		0.058	B	0.037	0.18
Calcium		8220	X	12.8	45.5
Chromium		9.3	X	0.053	0.18
Iron		23700	X	3.5	4.5
Magnesium		6250	X	3.4	18.2
Manganese		346	X	0.091	0.91
Molybdenum		0.25	B	0.24	1.8
Nickel		12.4	X	0.11	3.6
Potassium		1590		37.3	273
Selenium		0.78	U	0.78	0.91
Silicon		450	X	5.1	9.1
Silver		0.15	U	0.15	0.18
Zinc		46.5	X	0.36	0.91

Analysis Method:	6010B	Analysis Batch:	280-88355	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	09/28/2011 1252			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Sodium		394		53.7	109

Analysis Method:	6010B	Analysis Batch:	280-88355	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	5.0			Initial Weight/Volume:	1.11 g
Analysis Date:	09/28/2011 1231			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.45	B	0.15	0.91
Cobalt		10.5		0.45	4.5
Copper		20.3		0.99	4.5
Lead		8.2		1.2	2.3
Vanadium		60.6		0.43	9.1

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-86970	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	09/20/2011 1306			Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.025		0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-88139	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	09/27/2011 1535			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7600	X	1.5	4.7
Antimony		0.36	U	0.36	0.57
Arsenic		2.6		0.62	0.94
Barium		61.9	X	0.072	0.47
Boron		1.2	B	0.92	1.9
Cadmium		0.073	B	0.039	0.19
Calcium		6570	X	13.3	47.2
Chromium		8.7	X	0.055	0.19
Iron		23000	X	3.6	4.7
Magnesium		4800	X	3.5	18.9
Manganese		312	X	0.094	0.94
Molybdenum		0.27	B	0.25	1.9
Nickel		11.2	X	0.12	3.8
Potassium		1380		38.7	283
Selenium		0.81	U	0.81	0.94
Silicon		348	X	5.3	9.4
Silver		0.15	U	0.15	0.19
Zinc		43.7	X	0.38	0.94

Analysis Method:	6010B	Analysis Batch:	280-88355	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	09/28/2011 1303			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Sodium		316		55.7	113

Analysis Method:	6010B	Analysis Batch:	280-88355	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	5.0			Initial Weight/Volume:	1.07 g
Analysis Date:	09/28/2011 1240			Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.33	B	0.16	0.94
Cobalt		9.3		0.47	4.7
Copper		17.2		1.0	4.7
Lead		6.3		1.3	2.4
Vanadium		62.8		0.44	9.4

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid
% Moisture: 0.9

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-86970	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.68 g
Analysis Date:	09/20/2011 1313			Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.074		0.0049	0.015

General Chemistry

Client Sample ID: **J1KVC3**

Lab Sample ID: 280-20244-1
Client Matrix: Solid

Date Sampled: 09/12/2011 0945
Date Received: 09/14/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.97		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-86953 Analysis Date: 09/20/2011 1207 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1KVC4**

Lab Sample ID: 280-20244-2
Client Matrix: Solid

Date Sampled: 09/12/2011 0845
Date Received: 09/14/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.93		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-86953 Analysis Date: 09/20/2011 1207 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-86579					
LCS 280-86579/2-A	Lab Control Sample	T	Solid	8151A	
MB 280-86579/1-A	Method Blank	T	Solid	8151A	
280-20244-1	J1KVC3	T	Solid	8151A	
280-20244-1MS	Matrix Spike	T	Solid	8151A	
280-20244-1MSD	Matrix Spike Duplicate	T	Solid	8151A	
280-20244-2	J1KVC4	T	Solid	8151A	
Prep Batch: 280-86625					
LCS 280-86625/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-86625/1-A	Method Blank	T	Solid	3550C	
280-20244-1	J1KVC3	T	Solid	3550C	
280-20244-2	J1KVC4	T	Solid	3550C	
280-20244-2MS	Matrix Spike	T	Solid	3550C	
280-20244-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-87049					
LCS 280-87049/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-87049/1-A	Method Blank	T	Solid	3550C	
280-20244-1	J1KVC3	T	Solid	3550C	
280-20244-1MS	Matrix Spike	T	Solid	3550C	
280-20244-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-20244-2	J1KVC4	T	Solid	3550C	
Analysis Batch:280-87065					
LCS 280-86579/2-A	Lab Control Sample	T	Solid	8151A	280-86579
MB 280-86579/1-A	Method Blank	T	Solid	8151A	280-86579
280-20244-1	J1KVC3	T	Solid	8151A	280-86579
280-20244-1MS	Matrix Spike	T	Solid	8151A	280-86579
280-20244-1MSD	Matrix Spike Duplicate	T	Solid	8151A	280-86579
280-20244-2	J1KVC4	T	Solid	8151A	280-86579
Analysis Batch:280-87491					
LCS 280-87049/2-A	Lab Control Sample	T	Solid	8082	280-87049
MB 280-87049/1-A	Method Blank	T	Solid	8082	280-87049
280-20244-1	J1KVC3	T	Solid	8082	280-87049
280-20244-1MS	Matrix Spike	T	Solid	8082	280-87049
280-20244-1MSD	Matrix Spike Duplicate	T	Solid	8082	280-87049
280-20244-2	J1KVC4	T	Solid	8082	280-87049

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-87613					
LCS 280-86625/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-86625
MB 280-86625/1-A	Method Blank	T	Solid	NWTPH-Dx	280-86625
280-20244-1	J1KVC3	T	Solid	NWTPH-Dx	280-86625
280-20244-2	J1KVC4	T	Solid	NWTPH-Dx	280-86625
280-20244-2MS	Matrix Spike	T	Solid	NWTPH-Dx	280-86625
280-20244-2MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-86625

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-86067					
LCS 280-86067/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-86067/1-A	Method Blank	T	Solid	7471A	
280-20244-1	J1KVC3	T	Solid	7471A	
280-20244-1DU	Duplicate	T	Solid	7471A	
280-20244-1MS	Matrix Spike	T	Solid	7471A	
280-20244-2	J1KVC4	T	Solid	7471A	
Prep Batch: 280-86535					
LCS 280-86535/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-86535/1-A	Method Blank	T	Solid	3050B	
280-20244-1	J1KVC3	T	Solid	3050B	
280-20244-1DU	Duplicate	T	Solid	3050B	
280-20244-1MS	Matrix Spike	T	Solid	3050B	
280-20244-2	J1KVC4	T	Solid	3050B	
Analysis Batch:280-86970					
LCS 280-86067/2-A	Lab Control Sample	T	Solid	7471A	280-86067
MB 280-86067/1-A	Method Blank	T	Solid	7471A	280-86067
280-20244-1	J1KVC3	T	Solid	7471A	280-86067
280-20244-1DU	Duplicate	T	Solid	7471A	280-86067
280-20244-1MS	Matrix Spike	T	Solid	7471A	280-86067
280-20244-2	J1KVC4	T	Solid	7471A	280-86067
Analysis Batch:280-88139					
LCS 280-86535/2-A	Lab Control Sample	T	Solid	6010B	280-86535
MB 280-86535/1-A	Method Blank	T	Solid	6010B	280-86535
280-20244-1	J1KVC3	T	Solid	6010B	280-86535
280-20244-1DU	Duplicate	T	Solid	6010B	280-86535
280-20244-1MS	Matrix Spike	T	Solid	6010B	280-86535
280-20244-2	J1KVC4	T	Solid	6010B	280-86535
Analysis Batch:280-88355					
LCS 280-86535/2-A	Lab Control Sample	T	Solid	6010B	280-86535
MB 280-86535/1-A	Method Blank	T	Solid	6010B	280-86535
280-20244-1	J1KVC3	T	Solid	6010B	280-86535
280-20244-1DU	Duplicate	T	Solid	6010B	280-86535
280-20244-1MS	Matrix Spike	T	Solid	6010B	280-86535
280-20244-2	J1KVC4	T	Solid	6010B	280-86535

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-86953					
280-20244-1	J1KVC3	T	Solid	D-2216	
280-20244-1DU	Duplicate	T	Solid	D-2216	
280-20244-2	J1KVC4	T	Solid	D-2216	

Report Basis
T = Total

HPLC/IC					
Prep Batch: 280-87030					
LCS 280-87030/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-87030/1-A	Method Blank	T	Solid	3550C	
280-20244-1	J1KVC3	T	Solid	3550C	
280-20244-2	J1KVC4	T	Solid	3550C	
280-20244-2MS	Matrix Spike	T	Solid	3550C	
280-20244-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-87761					
LCS 280-87030/2-A	Lab Control Sample	T	Solid	8310	280-87030
MB 280-87030/1-A	Method Blank	T	Solid	8310	280-87030
280-20244-1	J1KVC3	T	Solid	8310	280-87030
280-20244-2	J1KVC4	T	Solid	8310	280-87030
280-20244-2MS	Matrix Spike	T	Solid	8310	280-87030
280-20244-2MSD	Matrix Spike Duplicate	T	Solid	8310	280-87030

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-87049

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-87049/1-A	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-87049	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.5 g
Analysis Date:	09/22/2011 2105	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	09/20/2011 2220			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.2
Aroclor 1221	7.4	U	7.4	15
Aroclor 1232	1.8	U	1.8	9.2
Aroclor 1242	4.3	U	4.3	9.2
Aroclor 1248	4.3	U	4.3	9.2
Aroclor 1254	2.4	U	2.4	9.2
Aroclor 1260	2.4	U	2.4	9.2

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	85	59 - 130
Tetrachloro-m-xylene	98	53 - 128

Lab Control Sample - Batch: 280-87049

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-87049/2-A	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-87049	Lab File ID:	010B1001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.1 g
Analysis Date:	09/22/2011 2126	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	09/20/2011 2220			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.2	28.7	86	54 - 132	
Aroclor 1260	33.2	32.1	97	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	84	59 - 130
Tetrachloro-m-xylene	96	53 - 128

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-87049

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-20244-1	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-87049	Lab File ID:	012B1201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	09/22/2011 2209			Final Weight/Volume:	5000 uL
Prep Date:	09/20/2011 2220			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-20244-1	Analysis Batch:	280-87491	Instrument ID:	GCS_P3
Client Matrix:	Solid	Prep Batch:	280-87049	Lab File ID:	013B1301.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	09/22/2011 2230			Final Weight/Volume:	5000 uL
Prep Date:	09/20/2011 2220			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	79	78	54 - 132	4	26		
Aroclor 1260	93	88	62 - 129	9	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	81	78	59 - 130
Tetrachloro-m-xylene	77	74	53 - 128

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-86579

Method: 8151A
Preparation: 8151A

Lab Sample ID:	MB 280-86579/1-A	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-86579	Lab File ID:	009B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.6 g
Analysis Date:	09/20/2011 1132	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	09/16/2011 2215			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
2,4,5-T	2.2	U	2.2	19
2,4-Dichlorophenoxyacetic acid	14	U	14	78
2,4-DB	4.22	J	2.7	78
Dalapon	1.4	U	1.4	39
Dicamba	1.4	U	1.4	39
Dichlorprop	3.1	U	3.1	78
Dinoseb	1.4	U	1.4	12
MCPA	1900	U	1900	7800
2,4,5-TP (Silvex)	1.4	U	1.4	19
MCPP	1900	U	1900	7800

Surrogate	% Rec	Acceptance Limits
DCAA	73	31 - 105

Lab Control Sample - Batch: 280-86579

Method: 8151A
Preparation: 8151A

Lab Sample ID:	LCS 280-86579/2-A	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-86579	Lab File ID:	004B0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.9 g
Analysis Date:	09/20/2011 0928	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	09/16/2011 2215			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4,5-T	94.3	93.4	99	24 - 115	
2,4-Dichlorophenoxyacetic acid	90.4	97.3	108	32 - 115	
2,4-DB	98.2	75.0	76	37 - 119	J
Dalapon	102	79.3	78	11 - 115	
Dicamba	90.4	83.0	92	11 - 115	
Dichlorprop	90.4	78.9	87	35 - 115	J
Dinoseb	90.4	9.01	10	5 - 166	J
MCPA	9160	9450	103	37 - 115	
2,4,5-TP (Silvex)	90.4	90.4	100	53 - 134	
MCPP	9170	10400	113	48 - 132	

Surrogate	% Rec	Acceptance Limits
DCAA	91	31 - 105

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-86579

Method: 8151A
Preparation: 8151A

MS Lab Sample ID:	280-20244-1	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-86579	Lab File ID:	006B0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.4 g
Analysis Date:	09/20/2011 1018			Final Weight/Volume:	10000 uL
Prep Date:	09/16/2011 2215			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-20244-1	Analysis Batch:	280-87065	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-86579	Lab File ID:	007B0701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.2 g
Analysis Date:	09/20/2011 1043			Final Weight/Volume:	10000 uL
Prep Date:	09/16/2011 2215			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4,5-T	71	80	24 - 115	13	40		
2,4-Dichlorophenoxyacetic acid	72	79	32 - 115	11	40	J	J
2,4-DB	58	58	37 - 119	50	50		J
Dalapon	58	60	11 - 115	4	50		
Dicamba	71	82	11 - 115	15	50		
Dichlorprop	67	70	35 - 115	6	50	J	J
Dinoseb	8	8	5 - 166	3	50	J	J
MCPA	69	82	37 - 115	17	50	J	J
2,4,5-TP (Silvex)	70	79	53 - 134	13	40		
MCPP	71	86	48 - 132	21	50	J	

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCAA	62	74	31 - 105

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-86625

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-86625/1-A	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-86625	Lab File ID:	012F1201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	09/21/2011 1627	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	930	U	930	3700
C10-C28	630	U	630	3700

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	99	49 - 115

Lab Control Sample - Batch: 280-86625

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-86625/2-A	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-86625	Lab File ID:	013F1301.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	09/21/2011 1700	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	65800	61900	94	57 - 115	
C10-C28	65800	62000	94	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	88	49 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-86625

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-20244-2	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-86625	Lab File ID:	016F1601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	09/21/2011 1839			Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-20244-2	Analysis Batch:	280-87613	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-86625	Lab File ID:	017F1701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.9 g
Analysis Date:	09/21/2011 1912			Final Weight/Volume:	1000 uL
Prep Date:	09/17/2011 1212			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	90	92	57 - 115	1	23		
C10-C28	89	92	56 - 115	1	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	84	85	49 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-87030

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-87030/1-A	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-87030	Lab File ID:	G0926037.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	09/27/2011 0227	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	09/20/2011 2223			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.5	U	9.5	95
Acenaphthylene	8.6	U	8.6	95
Anthracene	2.9	U	2.9	19
Benzo[a]anthracene	3.0	U	3.0	14
Benzo[a]pyrene	6.1	U	6.1	14
Benzo[b]fluoranthene	4.0	U	4.0	14
Benzo[g,h,i]perylene	6.9	U	6.9	29
Benzo[k]fluoranthene	3.8	U	3.8	14
Chrysene	4.6	U	4.6	38
Dibenzo(a,h)anthracene	10	U	10	29
Fluoranthene	12	U	12	38
Fluorene	5.0	U	5.0	29
Indeno[1,2,3-cd]pyrene	11	U	11	29
Naphthalene	11	U	11	95
Phenanthrene	11	U	11	38
Pyrene	11	U	11	38

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

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Lab Control Sample - Batch: 280-87030

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-87030/2-A	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-87030	Lab File ID:	G0926038.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	09/27/2011 0257	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	09/20/2011 2223			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1940	2080	107	78 - 116	
Acenaphthylene	1940	1900	98	76 - 115	
Anthracene	1940	2010	104	74 - 115	
Benzo[a]anthracene	1940	2130	110	85 - 120	
Benzo[a]pyrene	1940	2040	105	74 - 121	
Benzo[b]fluoranthene	1940	2130	110	85 - 115	
Benzo[g,h,i]perylene	1940	2210	114	85 - 120	
Benzo[k]fluoranthene	1940	2050	106	85 - 115	
Chrysene	1940	2040	105	83 - 115	
Dibenzo(a,h)anthracene	1940	2070	107	83 - 115	
Fluoranthene	1940	2070	107	83 - 115	
Fluorene	1940	1970	102	80 - 115	
Indeno[1,2,3-cd]pyrene	1940	2150	111	85 - 123	
Naphthalene	1940	1940	100	80 - 121	
Phenanthrene	1940	2010	104	80 - 115	
Pyrene	1940	2030	105	75 - 116	

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

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-87030

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-20244-2	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-87030	Lab File ID:	G0926041.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.1 g
Analysis Date:	09/27/2011 0429			Final Weight/Volume:	4000 uL
Prep Date:	09/20/2011 2223			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-20244-2	Analysis Batch:	280-87761	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-87030	Lab File ID:	G0926042.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.5 g
Analysis Date:	09/27/2011 0459			Final Weight/Volume:	4000 uL
Prep Date:	09/20/2011 2223			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	103	107	78 - 116	0	20		
Acenaphthylene	95	98	76 - 115	1	21		
Anthracene	101	101	74 - 115	4	20		
Benzo[a]anthracene	109	107	85 - 120	6	20		
Benzo[a]pyrene	103	101	74 - 121	7	20		
Benzo[b]fluoranthene	107	105	85 - 115	6	20		
Benzo[g,h,i]perylene	113	110	85 - 120	7	20		
Benzo[k]fluoranthene	104	102	85 - 115	7	20		
Chrysene	104	102	83 - 115	6	20		
Dibenzo(a,h)anthracene	106	104	83 - 115	7	20		
Fluoranthene	105	104	83 - 115	6	20		
Fluorene	97	101	80 - 115	1	20		
Indeno[1,2,3-cd]pyrene	110	107	85 - 123	7	20		
Naphthalene	95	100	80 - 121	0	20		
Phenanthrene	101	102	80 - 115	3	20		
Pyrene	104	102	75 - 116	6	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	95	93	72 - 115

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-86535/1-A	Analysis Batch:	280-88139	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 1521	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	0.016	U	0.016	0.050
Antimony	0.0038	U	0.0038	0.0060
Arsenic	0.0066	U	0.0066	0.010
Barium	0.00135	B	0.00076	0.0050
Boron	0.0098	U	0.0098	0.020
Cadmium	0.00041	U	0.00041	0.0020
Calcium	0.14	U	0.14	0.50
Chromium	0.00058	U	0.00058	0.0020
Iron	0.038	U	0.038	0.050
Magnesium	0.037	U	0.037	0.20
Manganese	0.0010	U	0.0010	0.010
Molybdenum	0.0026	U	0.0026	0.020
Nickel	0.0012	U	0.0012	0.040
Potassium	0.41	U	0.41	3.0
Selenium	0.0086	U	0.0086	0.010
Silicon	0.057	U	0.057	0.10
Silver	0.0016	U	0.0016	0.0020
Zinc	0.0040	U	0.0040	0.010

Method Blank - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-86535/1-A	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/28/2011 1226	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Beryllium	0.00033	U	0.00033	0.0020
Cobalt	0.0010	U	0.0010	0.010
Copper	0.0022	U	0.0022	0.010
Lead	0.0027	U	0.0027	0.0050
Sodium	0.670	B	0.59	1.2
Vanadium	0.00094	U	0.00094	0.020

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Lab Control Sample - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-86535/2-A	Analysis Batch:	280-88139	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 1524	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2.00	1.79	89	82 - 116	
Antimony	0.500	0.468	94	82 - 110	
Arsenic	1.00	0.918	92	85 - 110	
Barium	2.00	1.89	94	87 - 112	
Boron	1.00	0.904	90	81 - 110	
Cadmium	0.100	0.100	100	87 - 110	
Calcium	50.0	47.04	94	82 - 114	
Chromium	0.200	0.198	99	84 - 114	
Iron	1.00	0.953	95	87 - 120	
Magnesium	50.0	47.48	95	90 - 110	
Manganese	0.500	0.465	93	88 - 110	
Molybdenum	1.00	0.980	98	86 - 110	
Nickel	0.500	0.481	96	87 - 110	
Potassium	50.0	50.35	101	89 - 110	
Selenium	2.00	1.75	88	83 - 110	
Silicon	10.0	1.87	19	10 - 70	
Silver	0.0500	0.0529	106	87 - 114	
Zinc	0.500	0.471	94	76 - 114	

Lab Control Sample - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-86535/2-A	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/28/2011 1229	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.0500	0.0475	95	84 - 114	
Cobalt	0.500	0.484	97	87 - 110	
Copper	0.250	0.246	98	88 - 110	
Lead	0.500	0.474	95	86 - 110	
Sodium	50.0	51.33	103	90 - 112	
Vanadium	0.500	0.501	100	88 - 110	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88139	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/27/2011 1533	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9250		187	11230	1060	50 - 200	4
Antimony	0.35	U	46.8	20.88	45	20 - 200	
Arsenic	3.6		93.5	78.99	81	76 - 111	
Barium	61.3		187	224.4	87	52 - 159	
Boron	0.99	B	93.5	73.47	78	75 - 107	
Cadmium	0.058	B	9.35	8.38	89	40 - 130	
Calcium	8220		4680	11880	78	43 - 165	
Chromium	9.3		18.7	25.63	87	70 - 200	
Iron	23700		93.5	24600	1013	70 - 200	4
Magnesium	6250		4680	9890	78	64 - 145	
Manganese	346		46.8	388.6	90	40 - 200	4
Molybdenum	0.25	B	93.5	77.59	83	75 - 103	
Nickel	12.4		46.8	49.10	79	61 - 126	
Potassium	1590		4680	6143	97	56 - 172	
Selenium	0.78	U	187	144.1	77	76 - 104	
Silicon	450		935	768.2	34	20 - 200	
Silver	0.15	U	4.68	4.36	93	75 - 141	
Zinc	46.5		46.8	82.96	78	70 - 200	

Matrix Spike - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/28/2011 1238	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.45	B	4.68	4.83	94	72 - 105	
Cobalt	10.5		46.8	55.05	95	72 - 106	
Copper	20.3		23.4	42.23	94	37 - 187	
Lead	8.2		46.8	51.21	92	70 - 200	
Vanadium	60.6		46.8	114.0	114	50 - 169	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Matrix Spike - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/28/2011 1300	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Sodium	394	4680	4826	95	78 - 111	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Duplicate - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88139	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/27/2011 1530	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	9250		7909	16	40	
Antimony	0.35	U	0.36	NC	40	U
Arsenic	3.6		3.26	9	30	
Barium	61.3		52.03	16	30	
Boron	0.99	B	0.92	NC	30	U
Cadmium	0.058	B	0.0533	9	30	B
Calcium	8220		7180	13	30	
Chromium	9.3		8.32	11	40	
Iron	23700		22890	3	40	
Magnesium	6250		5553	12	30	
Manganese	346		323.1	7	40	
Molybdenum	0.25	B	0.24	NC	30	U
Nickel	12.4		10.99	12	30	
Potassium	1590		1402	13	40	
Selenium	0.78	U	0.80	NC	30	U
Silicon	450		428.1	5	40	
Silver	0.15	U	0.15	NC	30	U
Zinc	46.5		44.21	5	40	

Duplicate - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/28/2011 1236	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Beryllium	0.45	B	0.383	15	30	B
Cobalt	10.5		9.57	9	30	
Copper	20.3		18.64	9	30	
Lead	8.2		7.29	12	40	
Vanadium	60.6		62.20	3	30	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Duplicate - Batch: 280-86535

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-20244-1	Analysis Batch:	280-88355	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-86535	Lab File ID:	25A1092811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.08 g
Analysis Date:	09/28/2011 1257	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/26/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sodium	394	338.4	15	30	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Method Blank - Batch: 280-86067

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-86067/1-A	Analysis Batch:	280-86970	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/20/2011 1302	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-86067

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-86067/2-A	Analysis Batch:	280-86970	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/20/2011 1304	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				
Leach Date:	N/A				

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

Matrix Spike - Batch: 280-86067

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-20244-1	Analysis Batch:	280-86970	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	09/20/2011 1309	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.025	0.383	0.396	97	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Duplicate - Batch: 280-86067

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-20244-1	Analysis Batch:	280-86970	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-86067	Lab File ID:	110920AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.68 g
Analysis Date:	09/20/2011 1311	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/19/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.025	0.0255	4	20	

Client: Washington Closure Hanford

Job Number: 280-20244-1
Sdg Number: J01275

Duplicate - Batch: 280-86953

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-20244-1	Analysis Batch:	280-86953	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/20/2011 1207	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	0.97	0.80	20	20	

4.8, ~~7.8~~, 3.6, 3.4 IRI SC 9/14

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-075-260	Page 1 of 1

Collector: Q Stowe	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 118-D-2:1 Burial Ground- Focus Samples		SAF No.: RC-075
Ice Chest No.: ERC-02-007	Field Logbook No.: EL-1607-12	COA: R118D22000	Method of Shipment: Fed Ex
Shipped To: TestAmerica Incorporated, ~~Richland~~ Denver (and 9/12/11)	Offsite Property No.: A100878/879		Bill of Lading/Air Bill No.: See OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Rad < DOT

Special Handling and/or Storage

Cool 4 Deg. C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None	None
Type of Container	G/P	G/P	G	aG	aG	aG	G/P	G/P	G/P	G/P
No. of Container(s)	1	1	1	1	1	1	1	0	0	0
Volume	60mL	60mL	120mL	125mL	120mL	125mL	1000mL	1000mL	1000mL	1000ml

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	See item (1) in Special Instructions	Chromium Hex - 7196	TPH-Diesel Range - WTPH-D+	PAHs - 8310	PCBs - 8082	Chlorn-Herbicides - EPA8151	See item (2) in Special Instructions	Carbon-14, Tritium - H3	Nickel-63, Strontium-89/90 - Total Sr	Isotopic Plutonium
~~J1KVC0~~ (9/12/11)	~~SOIL~~												
~~J1KVC1~~ (9/12/11)	~~SOIL~~												
~~J1KVC2~~ (9/12/11)	~~SOIL~~												
J1KVC3	SOIL	9/12/11	0945	X		X	X	X	X				
J1KVC4	SOIL	9/12/11	0845	X		X	X	X	X				

9/12/11 9/12/11 RCF 27384

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	9/12/11 1400	D. Newman	9/12/11 1400
D. Newman	9/12/11 1630	Bingham	1060#2 9.12.11 1630
Bingham	1060#2 9.13.11 0810	Fed EX	
		9/14/11 0900.	

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) (Mercury)

(2) Gamma Spec (Client List) (Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155)

REVIEWED BY AJ DATE 9-13-11

SDG J01275

Matrix *: S - Soil; Sl - Sediment; SO - Solid; St - Shelter; 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 Solid Co-60 TR

Analytical Due:

Report Due: 10/5/11

Sample Check-in List

Date/Time Received: 9/14/11 0900 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: J01275 NA[ ] SAF #: RC-075 NA [ ]

Job Number: 20294 Chain of Custody # RC-075-260

Shipping Container ID: ERC-99-058, ERC-02-407 ERC-02-007 Air Bill # 7975 1140 8071, 7947, 7866

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 3.6, 4.8, 3.4 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] Date: 9/14/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 9/14/11

LS-023, Rev. 7, 1/08

EPC-02-007 3.6°

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J11201104290225

Ship Date: 13SEP11
ActWgt: 65.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

SHIP TO: (303) 736-0100

BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100878

ARVADA, CO 80002

Ref # R118D22000
Invoice #
PO #
Dept #

1 of 4

TRK# 0201 7975 1140 7866

MASTER

XH WHHA

WED - 14 SEP A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

50FG2/4299/F5F4

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ERL-02-407 4.8°

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx. Express

J1120110429022S

Ship Date: 13SEP11
ActWgt: 68.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

Ref # R118D22000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100

BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100878

ARVADA, CO 80002

2 of 4

MPS# 7975 1140 7947
0263

Mstr# 7975 1140 7866 0201

XH WHHA

WED - 14 SEP A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

50FG2/4299/F5F4

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ERC-99-058
3.4

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J1120110429022 5

Ship Date: 13SEP11
ActWgt: 60.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

Ref # R118D22000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100
BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100878

ARVADA, CO 80002

4 of 4

MPS# 7975 1140 8071
0263

Mstr# 7975 1140 7866 0201

WED - 14 SEP A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

XH WHHA

50FG2/4299/F5F4

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.