0096154

SAF-RC-181
ARRA 100-F Remaining Sites Remediation – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 5/6/11
INITIAL/DATE

COMMENTS:

SDG JP0170 SAF-RC-181

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Sample Location: 100-F-45 Verification

RECEIVED
MAY 11 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
MAY 2011

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 47 *Pages*

Report No.: 46444

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.
JP0170	RC-181	J1HJ32	J1D260562-1	MHJMN1AC	9MHJMN10	1117130
		J1HJ32	J1D260562-1	MHJMN1AA	9MHJMN10	1118342
		J1HJ33	J1D260562-2	MHJM01AC	9MHJM010	1117130
		J1HJ33	J1D260562-2	MHJM01AA	9MHJM010	1118342
		J1HJ34	J1D260562-3	MHJM21AC	9MHJM210	1117130
		J1HJ34	J1D260562-3	MHJM21AA	9MHJM210	1118342
		J1HJ35	J1D260562-4	MHJM41AC	9MHJM410	1117130
		J1HJ35	J1D260562-4	MHJM41AA	9MHJM410	1118342
		J1HJ36	J1D260562-5	MHJM61AC	9MHJM610	1117130
		J1HJ36	J1D260562-5	MHJM61AA	9MHJM610	1118342
		J1HJ37	J1D260562-6	MHJM81AC	9MHJM810	1117130
		J1HJ37	J1D260562-6	MHJM81AA	9MHJM810	1118342
		J1HJ38	J1D260562-7	MHJM91AC	9MHJM910	1117130
		J1HJ38	J1D260562-7	MHJM91AA	9MHJM910	1118342
		J1HJ39	J1D260562-8	MHJNA1AC	9MHJNA10	1117130
		J1HJ39	J1D260562-8	MHJNA1AA	9MHJNA10	1118342
		J1HJ40	J1D260562-9	MHJND1AC	9MHJND10	1117130
		J1HJ40	J1D260562-9	MHJND1AA	9MHJND10	1118342
		J1HJ41	J1D260562-10	MHJNN1AC	9MHJNN10	1117130
		J1HJ41	J1D260562-10	MHJNN1AA	9MHJNN10	1118342
	RC-181	J1HJ42	J1D260562-11	MHJNQ1AC	9MHJNQ10	1117130
		J1HJ42	J1D260562-11	MHJNQ1AA	9MHJNQ10	1118342
		J1HJ43	J1D260562-12	MHJNR1AC	9MHJNR10	1117130
		J1HJ43	J1D260562-12	MHJNR1AA	9MHJNR10	1118342
		J1HJ44	J1D260562-13	MHJN01AC	9MHJN010	1117130
		J1HJ44	J1D260562-13	MHJN01AA	9MHJN010	1118342

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

May 3, 2011

Attention: Joan Kessner

SAF Number	:	RC-181
Date SDG Closed	:	April 26, 2011
Number of Samples	:	Thirteen (13)
Sample Type	:	Soil
SDG Number	:	JP0170
Data Deliverable	:	15– Day / Summary

CASE NARRATIVE

I. Introduction

On April 26, 2011 thirteen 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
J1HJ32	MHJMN	SOIL	4/26/11
J1HJ33	MHJM0	SOIL	4/26/11
J1HJ34	MHJM2	SOIL	4/26/11
J1HJ35	MHJM4	SOIL	4/26/11
J1HJ36	MHJM6	SOIL	4/26/11
J1HJ37	MHJM8	SOIL	4/26/11
J1HJ38	MHJM9	SOIL	4/26/11
J1HJ39	MHJNA	SOIL	4/26/11
J1HJ40	MHJND	SOIL	4/26/11
J1HJ41	MHJNN	SOIL	4/26/11
J1HJ42	MHJNQ	SOIL	4/26/11
J1HJ43	MHJNR	SOIL	4/26/11
J1HJ44	MHJN0	SOIL	4/26/11

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
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

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:
The CRDL was not met on some analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1HJ32) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
The matrix spike recovered low at 65.9%. The post digestive matrix spike recovered at 94.87% and the insoluble matrix spike recovered at 100.4%. This implies a reducing capacity in the sample, but not enough to exhaust the more copious insoluble matrix spike. Except as noted; the LCS, batch blank, samples, sample duplicate (J1HJ32) and sample matrix spike (J1HJ32) 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:

Whitney Ritari
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: 03-May-11

Report No. : 46444

SDG No: JP0170

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1117130 GAMMA_GS									
J1HJ32									
	MHJMN1AC	AMERICIUM 241	-8.65E-02 +- 8.8E-02	U	pCi/g		1.44E-01		
		CO-60	2.81E-02 +- 1.9E-02	U	pCi/g		3.63E-02	5.00E-02	
		CS-137	1.37E+00 +- 1.9E-01		pCi/g		3.02E-02	1.00E-01	
		EU-152	3.24E-01 +- 9.3E-02		pCi/g		9.74E-02	1.00E-01	
		EU-154	1.92E-02 +- 5.7E-02	U	pCi/g		1.01E-01	1.00E-01	
		EU-155	2.04E-02 +- 6.6E-02	U	pCi/g		1.11E-01	1.00E-01	
J1HJ32 DUP									
	MHJMN1AD	AMERICIUM 241	-4.30E-02 +- 1.0E-01	U	pCi/g		1.70E-01		-67.1
		CO-60	5.17E-02 +- 2.9E-02	U	pCi/g		3.76E-02	5.00E-02	59.0
		CS-137	1.41E+00 +- 1.8E-01		pCi/g		2.78E-02	1.00E-01	3.5
		EU-152	3.29E-01 +- 8.3E-02		pCi/g		6.72E-02	1.00E-01	1.5
		EU-154	-1.23E-02 +- 4.8E-02	U	pCi/g		8.22E-02	1.00E-01	907.1
		EU-155	5.74E-02 +- 4.5E-02	U	pCi/g		7.80E-02	1.00E-01	95.0
J1HJ33									
	MHJM01AC	AMERICIUM 241	-3.17E-02 +- 1.0E-01	U	pCi/g		1.72E-01		
		CO-60	4.10E-03 +- 1.9E-02	U	pCi/g		3.33E-02	5.00E-02	
		CS-137	3.51E+00 +- 4.6E-01		pCi/g		3.57E-02	1.00E-01	
		EU-152	3.53E-02 +- 1.4E-01	U	pCi/g		1.21E-01	1.00E-01	
		EU-154	-5.05E-02 +- 6.0E-02	U	pCi/g		9.78E-02	1.00E-01	
		EU-155	7.03E-02 +- 7.8E-02	U	pCi/g		1.32E-01	1.00E-01	
J1HJ34									
	MHJM21AC	AMERICIUM 241	-8.74E-02 +- 1.0E-01	U	pCi/g		1.64E-01		
		CO-60	4.83E-03 +- 1.9E-02	U	pCi/g		3.48E-02	5.00E-02	
		CS-137	7.47E-01 +- 1.1E-01		pCi/g		3.74E-02	1.00E-01	
		EU-152	7.78E-02 +- 8.6E-02	U	pCi/g		1.08E-01	1.00E-01	
		EU-154	-3.88E-02 +- 6.7E-02	U	pCi/g		1.12E-01	1.00E-01	
		EU-155	-1.59E-02 +- 7.0E-02	U	pCi/g		1.16E-01	1.00E-01	
J1HJ35									
	MHJM41AC	AMERICIUM 241	-3.11E-02 +- 4.5E-02	U	pCi/g		7.48E-02		
		CO-60	-3.46E-03 +- 2.2E-02	U	pCi/g		3.86E-02	5.00E-02	
		CS-137	1.22E+00 +- 1.8E-01		pCi/g		4.52E-02	1.00E-01	
		EU-152	5.42E-03 +- 7.5E-02	U	pCi/g		1.23E-01	1.00E-01	
		EU-154	3.24E-02 +- 8.5E-02	U	pCi/g		1.52E-01	1.00E-01	
		EU-155	-5.46E-02 +- 6.2E-02	U	pCi/g		1.01E-01	1.00E-01	
J1HJ36									
	MHJM61AC	AMERICIUM 241	-2.60E-02 +- 4.5E-02	U	pCi/g		7.40E-02		
		CO-60	-8.02E-03 +- 2.4E-02	U	pCi/g		4.11E-02	5.00E-02	

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 03-May-11

TestAmerica TARL

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

Report No. : 46444

SDG No: JP0170

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1117130 GAMMA_GS									
J1HJ36									
	MHJM61AC	CS-137	7.20E-01 +- 1.1E-01		pCi/g		4.42E-02	1.00E-01	
		EU-152	-5.63E-03 +- 7.3E-02	U	pCi/g		1.13E-01	1.00E-01	
		EU-154	-7.69E-02 +- 7.7E-02	U	pCi/g		1.22E-01	1.00E-01	
		EU-155	7.13E-02 +- 6.4E-02	U	pCi/g		1.08E-01	1.00E-01	
J1HJ37									
	MHJM81AC	AMERICIUM 241	-3.05E-02 +- 7.6E-02	U	pCi/g		1.25E-01		
		CO-60	2.91E-03 +- 2.2E-02	U	pCi/g		4.04E-02	5.00E-02	
		CS-137	9.51E-01 +- 1.4E-01		pCi/g		3.92E-02	1.00E-01	
		EU-152	-6.48E-03 +- 6.4E-02	U	pCi/g		1.03E-01	1.00E-01	
		EU-154	6.24E-03 +- 7.3E-02	U	pCi/g		1.30E-01	1.00E-01	
		EU-155	2.95E-02 +- 5.7E-02	U	pCi/g		9.86E-02	1.00E-01	
J1HJ38									
	MHJM91AC	AMERICIUM 241	4.49E-02 +- 1.8E-01	U	pCi/g		3.20E-01		
		CO-60	9.89E-03 +- 2.1E-02	U	pCi/g		3.75E-02	5.00E-02	
		CS-137	9.18E-01 +- 1.3E-01		pCi/g		3.06E-02	1.00E-01	
		EU-152	2.62E-07 +- 5.3E-02	U	pCi/g		9.06E-02	1.00E-01	
		EU-154	1.38E-02 +- 7.0E-02	U	pCi/g		1.22E-01	1.00E-01	
		EU-155	3.35E-02 +- 6.2E-02	U	pCi/g		1.05E-01	1.00E-01	
J1HJ39									
	MHJNA1AC	AMERICIUM 241	-6.74E-02 +- 8.6E-02	U	pCi/g		1.42E-01		
		CO-60	1.86E-03 +- 1.9E-02	U	pCi/g		3.28E-02	5.00E-02	
		CS-137	1.06E+00 +- 1.5E-01		pCi/g		3.26E-02	1.00E-01	
		EU-152	1.25E-02 +- 7.6E-02	U	pCi/g		9.36E-02	1.00E-01	
		EU-154	3.11E-02 +- 5.9E-02	U	pCi/g		1.06E-01	1.00E-01	
		EU-155	-1.79E-02 +- 6.1E-02	U	pCi/g		1.01E-01	1.00E-01	
J1HJ40									
	MHJND1AC	AMERICIUM 241	4.25E-02 +- 1.1E-01	U	pCi/g		1.81E-01		
		CO-60	1.98E-02 +- 1.8E-02	U	pCi/g		3.40E-02	5.00E-02	
		CS-137	9.20E-01 +- 1.2E-01		pCi/g		2.70E-02	1.00E-01	
		EU-152	-5.18E-03 +- 4.1E-02	U	pCi/g		6.89E-02	1.00E-01	
		EU-154	2.68E-02 +- 5.7E-02	U	pCi/g		1.02E-01	1.00E-01	
		EU-155	6.88E-04 +- 4.3E-02	U	pCi/g		7.33E-02	1.00E-01	
J1HJ41									
	MHJNN1AC	AMERICIUM 241	-3.31E-02 +- 4.5E-02	U	pCi/g		7.44E-02		
		CO-60	2.17E-02 +- 2.5E-02	U	pCi/g		4.72E-02	5.00E-02	
		CS-137	4.14E-01 +- 7.8E-02		pCi/g		3.87E-02	1.00E-01	
		EU-152	1.71E-02 +- 7.2E-02	U	pCi/g		1.11E-01	1.00E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 03-May-11

TestAmerica TARL

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

Report No. : 46444

SDG No: JP0170

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1117130 GAMMA_GS									
J1HJ41									
	MHJNN1AC	EU-154	1.09E-03 +- 7.8E-02	U	pCi/g		1.37E-01	1.00E-01	
		EU-155	-5.59E-02 +- 6.1E-02	U	pCi/g		9.82E-02	1.00E-01	
J1HJ42									
	MHJNQ1AC	AMERICIUM 241	-3.79E-02 +- 7.4E-02	U	pCi/g		1.21E-01		
		CO-60	9.21E-03 +- 2.2E-02	U	pCi/g		4.08E-02	5.00E-02	
		CS-137	4.82E-01 +- 7.6E-02		pCi/g		3.74E-02	1.00E-01	
		EU-152	-3.43E-02 +- 5.9E-02	U	pCi/g		9.46E-02	1.00E-01	
		EU-154	-2.00E-06 +- 7.0E-02	U	pCi/g		1.24E-01	1.00E-01	
		EU-155	5.72E-04 +- 5.5E-02	U	pCi/g		9.39E-02	1.00E-01	
J1HJ43									
	MHJNR1AC	AMERICIUM 241	-1.42E-01 +- 9.3E-02	U	pCi/g		1.48E-01		
		CO-60	-1.80E-04 +- 1.9E-02	U	pCi/g		3.37E-02	5.00E-02	
		CS-137	3.80E-02 +- 3.3E-02		pCi/g		3.61E-02	1.00E-01	
		EU-152	-5.32E-02 +- 8.9E-02	U	pCi/g		9.17E-02	1.00E-01	
		EU-154	-1.55E-02 +- 6.9E-02	U	pCi/g		1.18E-01	1.00E-01	
		EU-155	3.94E-02 +- 6.8E-02	U	pCi/g		1.15E-01	1.00E-01	
J1HJ44									
	MHJN01AC	AMERICIUM 241	2.43E-03 +- 4.6E-02	U	pCi/g		7.70E-02		
		CO-60	-4.04E-03 +- 2.5E-02	U	pCi/g		4.26E-02	5.00E-02	
		CS-137	8.79E-01 +- 1.4E-01		pCi/g		4.35E-02	1.00E-01	
		EU-152	-1.92E-02 +- 7.3E-02	U	pCi/g		1.15E-01	1.00E-01	
		EU-154	-7.00E-02 +- 7.8E-02	U	pCi/g		1.25E-01	1.00E-01	
		EU-155	2.76E-03 +- 6.2E-02	U	pCi/g		1.04E-01	1.00E-01	
1118342 7196_CR6									
J1HJ32									
	MHJMN1AA	HEXCHROME	1.54E-01 +- 0.0E+00	U	mg/kg	N/A	1.54E-01	1.55E-01	
	MHJMN1AF	HEXCHROME	5.61E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	3.50E-01	113.8
J1HJ33									
	MHJM01AA	HEXCHROME	1.26E+00 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
J1HJ34									
	MHJM21AA	HEXCHROME	1.53E-01 +- 0.0E+00	U	mg/kg	N/A	1.53E-01	1.55E-01	
J1HJ35									
	MHJM41AA	HEXCHROME	8.69E-01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
J1HJ36									
	MHJM61AA	HEXCHROME	9.29E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1HJ37									
	MHJM81AA	HEXCHROME	6.84E-01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica TARL

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

Date: 03-May-11

Report No. : 46444

SDG No: JP0170

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1118342	7196_CR6								
	J1HJ38								
	MHJM91AA	HEXCHROME	7.38E-01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
	J1HJ39								
	MHJNA1AA	HEXCHROME	9.77E-01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
	J1HJ40								
	MHJND1AA	HEXCHROME	1.28E+00 +- 0.0E+00		mg/kg	N/A	1.53E-01	1.55E-01	
	J1HJ41								
	MHJNN1AA	HEXCHROME	1.54E-01 +- 0.0E+00	U	mg/kg	N/A	1.54E-01	1.55E-01	
	J1HJ42								
	MHJNQ1AA	HEXCHROME	3.33E-01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
	J1HJ43								
	MHJNR1AA	HEXCHROME	1.54E-01 +- 0.0E+00	U	mg/kg	N/A	1.54E-01	1.55E-01	
	J1HJ44								
	MHJN01AA	HEXCHROME	5.15E-01 +- 0.0E+00		mg/kg	N/A	1.53E-01	1.55E-01	

No. of Results: 98

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 03-May-11

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 46444

SDG No.: JP0170

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
GAMMA_GS								
1117130 BLANK QC,								
MHJ0W1AA	AMERICIUM 241	-1.78E-03 +- 5.0E-02	U	pCi/g				8.65E-02
	CO-60	2.60E-03 +- 8.6E-03	U	pCi/g				1.70E-02
	CS-137	8.45E-03 +- 9.2E-03	U	pCi/g				1.75E-02
	EU-152	3.46E-02 +- 2.5E-02	U	pCi/g				4.72E-02
	EU-154	-3.47E-03 +- 2.9E-02	U	pCi/g				5.19E-02
	EU-155	-3.83E-03 +- 2.1E-02	U	pCi/g				3.61E-02
1117130 LCS,								
MHJ0W1AC	CS-137	1.16E+00 +- 1.6E-01		pCi/g		107%	0.1	3.55E-02
7196_CR6								
1118342 MATRIX SPIKE, J1HJ32								
MHJMN1AE	HEXCHROME	7.37E+00 +- 0.0E+00		mg/kg	N/A	66%	-0.3	1.54E-01
1118342 LCS,								
MHM1F1AC	HEXCHROME	1.92E+01 +- 0.0E+00		mg/kg	N/A	96%	0.0	1.55E-01
1118342 BLANK QC,								
MHM1F1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 10

TestAmerica
rptSTLRchQcSummary V5.2.12
A2002

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

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

TestAmerica Laboratories, Inc.

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0170	Collection Date:	4/26/2011 10:35:00 AM
Lot-Sample No.:	J1D260562-1	Report No. :	46444	Received Date:	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ32	COC No. :	RC-181-005	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: 1117130	GAMMA_GS			Work Order: MHJMN1AC			Report DB ID: 9MHJMN10					
AMERICIUM 241	***-8.65E-02***	U	8.8E-02	8.8E-02	1.44E-01	pCi/g		*-0.6*	4/28/11 11:04 a		358.1	GER10$1
								-(2.)			g	
CO-60	***2.81E-02***	U	1.9E-02	1.9E-02	3.63E-02	pCi/g		*0.78*	4/28/11 11:04 a		358.1	GER10$1
							5.00E-02	*(3.)*			g	
CS-137	***1.37E+00***		1.9E-01	1.9E-01	3.02E-02	pCi/g		*(45.3)*	4/28/11 11:04 a		358.1	GER10$1
							1.00E-01	*(14.7)*			g	
EU-152	***3.24E-01***		9.3E-02	9.3E-02	9.74E-02	pCi/g		*(3.3)*	4/28/11 11:04 a		358.1	GER10$1
							1.00E-01	*(6.9)*			g	
EU-154	***1.92E-02***	U	5.7E-02	5.7E-02	1.01E-01	pCi/g		*0.19*	4/28/11 11:04 a		358.1	GER10$1
							1.00E-01	*0.68*			g	
EU-155	***2.04E-02***	U	6.6E-02	6.6E-02	1.11E-01	pCi/g		*0.18*	4/28/11 11:04 a		358.1	GER10$1
							1.00E-01	*0.62*			g	
Batch: 1118342	7196_CR6			Work Order: MHJMN1AA			Report DB ID: 9MHJMN10					
HEXCHROME	***1.54E-01***	U		0.0E+00	1.54E-01	mg/kg	N/A	*(1.)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

TestAmerica Laboratories, Inc.

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0170	Collection Date:	4/26/2011 10:05:00 AM
Lot-Sample No.:	J1D260562-2	Report No. :	46444	Received Date:	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ33	COC No. :	RC-181-005	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: 1117130	GAMMA_GS			**Work Order:** MHJM01AC			**Report DB ID:** 9MHJM010					
AMERICIUM 241	***-3.17E-02***	U	1.0E-01	1.0E-01	1.72E-01	pCi/g		*-0.18*	4/28/11 02:29 p		361.1	GER10$1
								-0.61			g	
CO-60	***4.10E-03***	U	1.9E-02	1.9E-02	3.33E-02	pCi/g		*0.12*	4/28/11 02:29 p		361.1	GER10$1
							5.00E-02	*0.44*			g	
CS-137	***3.51E+00***		4.6E-01	4.6E-01	3.57E-02	pCi/g		*(98.3)*	4/28/11 02:29 p		361.1	GER10$1
							1.00E-01	*(15.3)*			g	
EU-152	***3.53E-02***	U	1.4E-01	1.4E-01	1.21E-01	pCi/g		*0.29*	4/28/11 02:29 p		361.1	GER10$1
							1.00E-01	*0.49*			g	
EU-154	***-5.05E-02***	U	6.0E-02	6.0E-02	9.78E-02	pCi/g		*-0.52*	4/28/11 02:29 p		361.1	GER10$1
							1.00E-01	*-(1.7)*			g	
EU-155	***7.03E-02***	U	7.8E-02	7.8E-02	1.32E-01	pCi/g		*0.53*	4/28/11 02:29 p		361.1	GER10$1
							1.00E-01	*(1.8)*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJM01AA			**Report DB ID:** 9MHJM010					
HEXCHROME	***1.26E+00***			0.0E+00	1.54E-01	mg/kg	N/A	*(8.2)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 10:20:00 AM
Lot-Sample No.:	J1D260562-3	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ34	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJM21AC			**Report DB ID:** 9MHJM210					
AMERICIUM 241	***-8.74E-02***	U	1.0E-01	1.0E-01	1.64E-01	pCi/g		*-0.53*	4/28/11 07:12 p		293.7	GER10$1
								-(1.8)			g	
CO-60	***4.83E-03***	U	1.9E-02	1.9E-02	3.48E-02	pCi/g		*0.14*	4/28/11 07:12 p		293.7	GER10$1
							5.00E-02	*0.5*			g	
CS-137	***7.47E-01***		1.1E-01	1.1E-01	3.74E-02	pCi/g		*(20.)*	4/28/11 07:12 p		293.7	GER10$1
							1.00E-01	*(13.5)*			g	
EU-152	***7.78E-02***	U	8.6E-02	8.6E-02	1.08E-01	pCi/g		*0.72*	4/28/11 07:12 p		293.7	GER10$1
							1.00E-01	*(1.8)*			g	
EU-154	***-3.88E-02***	U	6.7E-02	6.7E-02	1.12E-01	pCi/g		*-0.35*	4/28/11 07:12 p		293.7	GER10$1
							1.00E-01	*-(1.2)*			g	
EU-155	***-1.59E-02***	U	7.0E-02	7.0E-02	1.16E-01	pCi/g		*-0.14*	4/28/11 07:12 p		293.7	GER10$1
							1.00E-01	*-0.46*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJM21AA			**Report DB ID:** 9MHJM210					
HEXCHROME	***1.53E-01***	U		0.0E+00	1.53E-01	mg/kg	N/A	*(1.)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 9:30:00 AM
Lot-Sample No.:	J1D260562-4	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ35	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJM41AC			**Report DB ID:** 9MHJM410					
AMERICIUM 241	***-3.11E-02***	U	4.5E-02	4.5E-02	7.48E-02	pCi/g		*-0.42*	4/28/11 07:13 p		344.5	GER14$1
								-(1.4)			g	
CO-60	***-3.46E-03***	U	2.2E-02	2.2E-02	3.86E-02	pCi/g		*-0.09*	4/28/11 07:13 p		344.5	GER14$1
							5.00E-02	*-0.31*			g	
CS-137	***1.22E+00***		1.8E-01	1.8E-01	4.52E-02	pCi/g		*(27.)*	4/28/11 07:13 p		344.5	GER14$1
							1.00E-01	*(13.6)*			g	
EU-152	***5.42E-03***	U	7.5E-02	7.5E-02	1.23E-01	pCi/g		*0.04*	4/28/11 07:13 p		344.5	GER14$1
							1.00E-01	*0.14*			g	
EU-154	***3.24E-02***	U	8.5E-02	8.5E-02	1.52E-01	pCi/g		*0.21*	4/28/11 07:13 p		344.5	GER14$1
							1.00E-01	*0.76*			g	
EU-155	***-5.46E-02***	U	6.2E-02	6.2E-02	1.01E-01	pCi/g		*-0.54*	4/28/11 07:13 p		344.5	GER14$1
							1.00E-01	*-(1.8)*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJM41AA			**Report DB ID:** 9MHJM410					
HEXCHROME	***8.69E-01***			0.0E+00	1.54E-01	mg/kg	N/A	*(5.6)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 9:45:00 AM
Lot-Sample No.:	J1D260562-5	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ36	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJM61AC			**Report DB ID:** 9MHJM610					
AMERICIUM 241	***-2.60E-02***	U	4.5E-02	4.5E-02	7.40E-02	pCi/g		*-0.35*	4/29/11 03:28 a		347.7	GER14$1
								-(1.2)			g	
CO-60	***-8.02E-03***	U	2.4E-02	2.4E-02	4.11E-02	pCi/g		*-0.19*	4/29/11 03:28 a		347.7	GER14$1
							5.00E-02	*-0.66*			g	
CS-137	***7.20E-01***		1.1E-01	1.1E-01	4.42E-02	pCi/g		*(16.3)*	4/29/11 03:28 a		347.7	GER14$1
							1.00E-01	*(12.5)*			g	
EU-152	***-5.63E-03***	U	7.3E-02	7.3E-02	1.13E-01	pCi/g		*-0.05*	4/29/11 03:28 a		347.7	GER14$1
							1.00E-01	*-0.15*			g	
EU-154	***-7.69E-02***	U	7.7E-02	7.7E-02	1.22E-01	pCi/g		*-0.63*	4/29/11 03:28 a		347.7	GER14$1
							1.00E-01	*-(2.)*			g	
EU-155	***7.13E-02***	U	6.4E-02	6.4E-02	1.08E-01	pCi/g		*0.66*	4/29/11 03:28 a		347.7	GER14$1
							1.00E-01	*(2.2)*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJM61AA			**Report DB ID:** 9MHJM610					
HEXCHROME	***9.29E-01***			0.0E+00	1.55E-01	mg/kg	N/A	*(6.)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0170	Collection Date:	4/26/2011 9:00:00 AM
Lot-Sample No.:	J1D260562-6	Report No. :	46444	Received Date:	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ37	COC No. :	RC-181-005	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: 1117130	GAMMA_GS			Work Order: MHJM81AC			Report DB ID: 9MHJM810					
AMERICIUM 241	***-3.05E-02***	U	7.6E-02	7.6E-02	1.25E-01	pCi/g		*-0.24*	4/29/11 03:28 a		337.5	GER7$1
								-0.8			g	
CO-60	***2.91E-03***	U	2.2E-02	2.2E-02	4.04E-02	pCi/g		*0.07*	4/29/11 03:28 a		337.5	GER7$1
							5.00E-02	*0.26*			g	
CS-137	***9.51E-01***		1.4E-01	1.4E-01	3.92E-02	pCi/g		*(24.2)*	4/29/11 03:28 a		337.5	GER7$1
							1.00E-01	*(13.8)*			g	
EU-152	***-6.48E-03***	U	6.4E-02	6.4E-02	1.03E-01	pCi/g		*-0.06*	4/29/11 03:28 a		337.5	GER7$1
							1.00E-01	*-0.2*			g	
EU-154	***6.24E-03***	U	7.3E-02	7.3E-02	1.30E-01	pCi/g		*0.05*	4/29/11 03:28 a		337.5	GER7$1
							1.00E-01	*0.17*			g	
EU-155	***2.95E-02***	U	5.7E-02	5.7E-02	9.86E-02	pCi/g		*0.3*	4/29/11 03:28 a		337.5	GER7$1
							1.00E-01	*(1.)*			g	
Batch: 1118342	7196_CR6			Work Order: MHJM81AA			Report DB ID: 9MHJM810					
HEXCHROME	***6.84E-01***			0.0E+00	1.54E-01	mg/kg	N/A	*(4.4)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

TestAmerica Laboratories, Inc.

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:25:00 AM
Lot-Sample No.:	J1D260562-7	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ38	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJM91AC			**Report DB ID:** 9MHJM910					
AMERICIUM 241	***4.49E-02***	U	1.8E-01	1.8E-01	3.20E-01	pCi/g		*0.14*	4/29/11 03:28 a		332.6	GER13$1
								0.49			g	
CO-60	***9.89E-03***	U	2.1E-02	2.1E-02	3.75E-02	pCi/g		*0.26*	4/29/11 03:28 a		332.6	GER13$1
							5.00E-02	*0.96*			g	
CS-137	***9.18E-01***		1.3E-01	1.3E-01	3.06E-02	pCi/g		*(30.)*	4/29/11 03:28 a		332.6	GER13$1
							1.00E-01	*(13.7)*			g	
EU-152	***2.62E-07***	U	5.3E-02	5.3E-02	9.06E-02	pCi/g		*0.*	4/29/11 03:28 a		332.6	GER13$1
							1.00E-01	*0.*			g	
EU-154	***1.38E-02***	U	7.0E-02	7.0E-02	1.22E-01	pCi/g		*0.11*	4/29/11 03:28 a		332.6	GER13$1
							1.00E-01	*0.4*			g	
EU-155	***3.35E-02***	U	6.2E-02	6.2E-02	1.05E-01	pCi/g		*0.32*	4/29/11 03:28 a		332.6	GER13$1
							1.00E-01	*(1.1)*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJM91AA			**Report DB ID:** 9MHJM910					
HEXCHROME	***7.38E-01***			0.0E+00	1.54E-01	mg/kg	N/A	*(4.8)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

TestAmerica Laboratories, Inc.

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0170	Collection Date:	4/26/2011 8:45:00 AM
Lot-Sample No.:	J1D260562-8	Report No. :	46444	Received Date:	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ39	COC No. :	RC-181-005	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: 1117130	GAMMA_GS			Work Order: MHJNA1AC			Report DB ID: 9MHJNA10					
AMERICIUM 241	***-6.74E-02***	U	8.6E-02	8.6E-02	1.42E-01	pCi/g		*-0.48*	4/29/11 03:28 a		335.4	GER10$1
								-(1.6)			g	
CO-60	***1.86E-03***	U	1.9E-02	1.9E-02	3.28E-02	pCi/g		*0.06*	4/29/11 03:28 a		335.4	GER10$1
							5.00E-02	*0.2*			g	
CS-137	***1.06E+00***		1.5E-01	1.5E-01	3.26E-02	pCi/g		*(32.4)*	4/29/11 03:28 a		335.4	GER10$1
							1.00E-01	*(14.5)*			g	
EU-152	***1.25E-02***	U	7.6E-02	7.6E-02	9.36E-02	pCi/g		*0.13*	4/29/11 03:28 a		335.4	GER10$1
							1.00E-01	*0.33*			g	
EU-154	***3.11E-02***	U	5.9E-02	5.9E-02	1.06E-01	pCi/g		*0.29*	4/29/11 03:28 a		335.4	GER10$1
							1.00E-01	*(1.1)*			g	
EU-155	***-1.79E-02***	U	6.1E-02	6.1E-02	1.01E-01	pCi/g		*-0.18*	4/29/11 03:28 a		335.4	GER10$1
							1.00E-01	*-0.59*			g	
Batch: 1118342	7196_CR6			Work Order: MHJNA1AA			Report DB ID: 9MHJNA10					
HEXCHROME	***9.77E-01***			0.0E+00	1.54E-01	mg/kg	N/A	*(6.3)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

TestAmerica Laboratories, Inc.

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:20:00 AM
Lot-Sample No.:	J1D260562-9	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ40	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJND1AC			**Report DB ID:** 9MHJND10					
AMERICIUM 241	***4.25E-02***	U	1.1E-01	1.1E-01	1.81E-01	pCi/g		*0.24*	4/29/11 07:48 a		321.5	GER11$1
								0.8			g	
CO-60	***1.98E-02***	U	1.8E-02	1.8E-02	3.40E-02	pCi/g		*0.58*	4/29/11 07:48 a		321.5	GER11$1
							5.00E-02	*(2.2)*			g	
CS-137	***9.20E-01***		1.2E-01	1.2E-01	2.70E-02	pCi/g		*(34.1)*	4/29/11 07:48 a		321.5	GER11$1
							1.00E-01	*(14.8)*			g	
EU-152	***-5.18E-03***	U	4.1E-02	4.1E-02	6.89E-02	pCi/g		*-0.08*	4/29/11 07:48 a		321.5	GER11$1
							1.00E-01	*-0.25*			g	
EU-154	***2.68E-02***	U	5.7E-02	5.7E-02	1.02E-01	pCi/g		*0.26*	4/29/11 07:48 a		321.5	GER11$1
							1.00E-01	*0.95*			g	
EU-155	***6.88E-04***	U	4.3E-02	4.3E-02	7.33E-02	pCi/g		*0.01*	4/29/11 07:48 a		321.5	GER11$1
							1.00E-01	*0.03*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJND1AA			**Report DB ID:** 9MHJND10					
HEXCHROME	***1.28E+00***			0.0E+00	1.53E-01	mg/kg	N/A	*(8.4)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:05:00 AM
Lot-Sample No.:	J1D260562-10	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ41	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:**	MHJNN1AC		**Report DB ID:**	9MHJNN10				
AMERICIUM 241	***-3.31E-02***	U	4.5E-02	4.5E-02	7.44E-02	pCi/g		*-0.44*	4/29/11 07:48 a		339.4	GER14$1
								-(1.5)			g	
CO-60	***2.17E-02***	U	2.5E-02	2.5E-02	4.72E-02	pCi/g		*0.46*	4/29/11 07:48 a		339.4	GER14$1
							5.00E-02	*(1.7)*			g	
CS-137	***4.14E-01***		7.8E-02	7.8E-02	3.87E-02	pCi/g		*(10.7)*	4/29/11 07:48 a		339.4	GER14$1
							1.00E-01	*(10.7)*			g	
EU-152	***1.71E-02***	U	7.2E-02	7.2E-02	1.11E-01	pCi/g		*0.15*	4/29/11 07:48 a		339.4	GER14$1
							1.00E-01	*0.48*			g	
EU-154	***1.09E-03***	U	7.8E-02	7.8E-02	1.37E-01	pCi/g		*0.01*	4/29/11 07:48 a		339.4	GER14$1
							1.00E-01	*0.03*			g	
EU-155	***-5.59E-02***	U	6.1E-02	6.1E-02	9.82E-02	pCi/g		*-0.57*	4/29/11 07:48 a		339.4	GER14$1
							1.00E-01	*-(1.8)*			g	
Batch: 1118342	7196_CR6			**Work Order:**	MHJNN1AA		**Report DB ID:**	9MHJNN10				
HEXCHROME	***1.54E-01***	U		0.0E+00	1.54E-01	mg/kg	N/A	*(1.)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:10:00 AM
Lot-Sample No.:	J1D260562-11	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ42	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJNQ1AC			**Report DB ID:** 9MHJNQ10					
AMERICIUM 241	***-3.79E-02***	U	7.4E-02	7.4E-02	1.21E-01	pCi/g		*-0.31*	4/29/11 07:49 a		350.1	GER7$1
								-(1.)			g	
CO-60	***9.21E-03***	U	2.2E-02	2.2E-02	4.08E-02	pCi/g		*0.23*	4/29/11 07:49 a		350.1	GER7$1
							5.00E-02	*0.84*			g	
CS-137	***4.82E-01***		7.6E-02	7.6E-02	3.74E-02	pCi/g		*(12.9)*	4/29/11 07:49 a		350.1	GER7$1
							1.00E-01	*(12.6)*			g	
EU-152	***-3.43E-02***	U	5.9E-02	5.9E-02	9.46E-02	pCi/g		*-0.36*	4/29/11 07:49 a		350.1	GER7$1
							1.00E-01	*-(1.2)*			g	
EU-154	***-2.00E-06***	U	7.0E-02	7.0E-02	1.24E-01	pCi/g		*0.*	4/29/11 07:49 a		350.1	GER7$1
							1.00E-01	*0.*			g	
EU-155	***5.72E-04***	U	5.5E-02	5.5E-02	9.39E-02	pCi/g		*0.01*	4/29/11 07:49 a		350.1	GER7$1
							1.00E-01	*0.02*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJNQ1AA			**Report DB ID:** 9MHJNQ10					
HEXCHROME	***3.33E-01***			0.0E+00	1.54E-01	mg/kg	N/A	*(2.2)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0170	Collection Date:	4/26/2011 8:00:00 AM
Lot-Sample No.:	J1D260562-12	Report No. :	46444	Received Date:	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ43	COC No. :	RC-181-005	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: 1117130	GAMMA_GS			Work Order:	MHJNR1AC		Report DB ID:	9MHJNR10				
AMERICIUM 241	***-1.42E-01***	U	9.3E-02	9.3E-02	1.48E-01	pCi/g		*-0.96*	4/29/11 07:50 a		306.2	GER10$1
								-(3.)			g	
CO-60	***-1.80E-04***	U	1.9E-02	1.9E-02	3.37E-02	pCi/g		*-0.01*	4/29/11 07:50 a		306.2	GER10$1
							5.00E-02	*-0.02*			g	
CS-137	***3.80E-02***		3.3E-02	3.3E-02	3.61E-02	pCi/g		*(1.1)*	4/29/11 07:50 a		306.2	GER10$1
							1.00E-01	*(2.3)*			g	
EU-152	***-5.32E-02***	U	8.9E-02	8.9E-02	9.17E-02	pCi/g		*-0.58*	4/29/11 07:50 a		306.2	GER10$1
							1.00E-01	*-(1.2)*			g	
EU-154	***-1.55E-02***	U	6.9E-02	6.9E-02	1.18E-01	pCi/g		*-0.13*	4/29/11 07:50 a		306.2	GER10$1
							1.00E-01	*-0.45*			g	
EU-155	***3.94E-02***	U	6.8E-02	6.8E-02	1.15E-01	pCi/g		*0.34*	4/29/11 07:50 a		306.2	GER10$1
							1.00E-01	*(1.2)*			g	
Batch: 1118342	7196_CR6			Work Order:	MHJNR1AA		Report DB ID:	9MHJNR10				
HEXCHROME	***1.54E-01***	U		0.0E+00	1.54E-01	mg/kg	N/A	*(1.)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:25:00 AM
Lot-Sample No.:	J1D260562-13	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ44	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJN01AC			**Report DB ID:** 9MHJN010					
AMERICIUM 241	***2.43E-03***	U	4.6E-02	4.6E-02	7.70E-02	pCi/g		*0.03*	4/29/11 11:16 a		337.2	GER14$1
								0.11			g	
CO-60	***-4.04E-03***	U	2.5E-02	2.5E-02	4.26E-02	pCi/g		*-0.09*	4/29/11 11:16 a		337.2	GER14$1
							5.00E-02	*-0.33*			g	
CS-137	***8.79E-01***		1.4E-01	1.4E-01	4.35E-02	pCi/g		*(20.2)*	4/29/11 11:16 a		337.2	GER14$1
							1.00E-01	*(12.9)*			g	
EU-152	***-1.92E-02***	U	7.3E-02	7.3E-02	1.15E-01	pCi/g		*-0.17*	4/29/11 11:16 a		337.2	GER14$1
							1.00E-01	*-0.52*			g	
EU-154	***-7.00E-02***	U	7.8E-02	7.8E-02	1.25E-01	pCi/g		*-0.56*	4/29/11 11:16 a		337.2	GER14$1
							1.00E-01	*-(1.8)*			g	
EU-155	***2.76E-03***	U	6.2E-02	6.2E-02	1.04E-01	pCi/g		*0.03*	4/29/11 11:16 a		337.2	GER14$1
							1.00E-01	*0.09*			g	
Batch: 1118342	7196_CR6			**Work Order:** MHJN01AA			**Report DB ID:** 9MHJN010					
HEXCHROME	***5.15E-01***			0.0E+00	1.53E-01	mg/kg	N/A	*(3.4)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 8:25:00 AM
Lot-Sample No.:	J1D260562-13	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ44	**COC No. :**	RC-181-005	**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

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM II

Date: 03-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 10:35:00 AM
Lot-Sample No.:	J1D260562-1	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ32	**COC No. :**	RC-181-005	**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: 1118342	7196_CR6			**Work Order:** MHJMN1AF		**Report DB ID:** MHJMN1ER			**Orig Sa DB ID:** 9MHJMN10			
HEXCHROME	5.61E-01			0.0E+00	1.55E-01	mg/kg	N/A	(3.6)	4/30/11 09:00 a		2.5	
	1.54E-01	U	**RPD**	**113.8**		3.50E-01		N/A			g	

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

TestAmerica Laboratories, Inc.

TestAmerica
rptSTLRchDupV5.2
.12 A2002

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

FORM II

Date: 03-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0170	**Collection Date:**	4/26/2011 10:35:00 AM
Lot-Sample No.:	J1D260562-1	**Report No. :**	46444	**Received Date:**	4/26/2011 3:35:00 PM
Client Sample ID:	J1HJ32 DUP	**COC No. :**	RC-181-005	**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: 1117130	GAMMA_GS			**Work Order:** MHJMN1AD		**Report DB ID:** MHJMN1DR			**Orig Sa DB ID:** 9MHJMN10			
AMERICIUM 241	-4.30E-02	U	1.0E-01	1.0E-01	1.70E-01	pCi/g		-0.25	4/29/11 03:27 a		363.0	GER11$1
	-8.65E-02	U	**RPD**	**-67.1**				-0.82			g	
CO-60	5.17E-02	U	2.9E-02	2.9E-02	3.76E-02	pCi/g		(1.4)	4/29/11 03:27 a		363.0	GER11$1
	2.81E-02	U	**RPD**	**59.0**		5.00E-02		(3.6)			g	
CS-137	1.41E+00		1.8E-01	1.8E-01	2.78E-02	pCi/g		(50.9)	4/29/11 03:27 a		363.0	GER11$1
	1.37E+00		**RPD**	**3.5**		1.00E-01		(15.4)			g	
EU-152	3.29E-01		8.3E-02	8.3E-02	6.72E-02	pCi/g		(4.9)	4/29/11 03:27 a		363.0	GER11$1
	3.24E-01		**RPD**	**1.5**		1.00E-01		(7.9)			g	
EU-154	-1.23E-02	U	4.8E-02	4.8E-02	8.22E-02	pCi/g		-0.15	4/29/11 03:27 a		363.0	GER11$1
	1.92E-02	U	**RPD**	**907.1**		1.00E-01		-0.51			g	
EU-155	5.74E-02	U	4.5E-02	4.5E-02	7.80E-02	pCi/g		0.74	4/29/11 03:27 a		363.0	GER11$1
	2.04E-02	U	**RPD**	**95.0**		1.00E-01		(2.6)			g	

No. of Results: 6 **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.

TestAmerica Laboratories, Inc.

FORM II

BLANK RESULTS

Date: 03-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: JP0170

Report No. : 46444

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: 1118342	7196_CR6			**Work Order:**	MHM1F1AA		**Report DB ID:**	MHM1F1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	4/30/11 09:00 a		2.5	
						1.55E-01		N/A			g	
Batch: 1117130	GAMMA_GS			**Work Order:**	MHJ0W1AA		**Report DB ID:**	MHJ0W1AB				
AMERICIUM 241	-1.78E-03	U	5.0E-02	5.0E-02	8.65E-02	pCi/g		-0.02	4/29/11 11:16 a		348.0	GER11$1
								-0.07			g	
CO-60	2.60E-03	U	8.6E-03	8.6E-03	1.70E-02	pCi/g		0.15	4/29/11 11:16 a		348.0	GER11$1
						5.00E-02		0.61			g	
CS-137	8.45E-03	U	9.2E-03	9.2E-03	1.75E-02	pCi/g		0.48	4/29/11 11:16 a		348.0	GER11$1
						1.00E-01		(1.8)			g	
EU-152	3.46E-02	U	2.5E-02	2.5E-02	4.72E-02	pCi/g		0.73	4/29/11 11:16 a		348.0	GER11$1
						1.00E-01		(2.7)			g	
EU-154	-3.47E-03	U	2.9E-02	2.9E-02	5.19E-02	pCi/g		-0.07	4/29/11 11:16 a		348.0	GER11$1
						1.00E-01		-0.24			g	
EU-155	-3.83E-03	U	2.1E-02	2.1E-02	3.61E-02	pCi/g		-0.11	4/29/11 11:16 a		348.0	GER11$1
						1.00E-01		-0.37			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchBlank
V5.2.12 A2002

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

FORM II

LCS RESULTS

Date: 03-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: JP0170

Report No. : 46444

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: 1118342	7196_CR6			**Work Order:**	MHM1F1AC		**Report DB ID:**	MHM1F1AS					
HEXCHROME	1.92E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		96%	4/30/11 09:00 a	2.5	
							Rec Limits:	80	120	0.0		g	
Batch: 1117130	GAMMA_GS			**Work Order:**	MHJ0W1AC		**Report DB ID:**	MHJ0W1CS					
CS-137	1.16E+00		1.6E-01	1.6E-01	3.55E-02	pCi/g		1.08E+00	1.1E-02	107%	4/29/11 11:17 a	350.1	GER7$1
							Rec Limits:	70	130	0.1		g	

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

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

rptSTLRchLcs
V5.2.12 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 03-May-11

Lab Name: TestAmerica SDG: JP0170

Lot-Sample No.: J1D260562-1, J1HJ32 Report No. : 46444 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: 1118342	Work Order: MHJMN1AE			Report DB ID: MHJMN1CW			Orig Sa DB ID: 9MHJMN10					
HEXCHROME	7.37E+00			0.0E+00	1.54E-01	mg/kg	N/A	65.91%	1.12E+01	4/30/11 09:00 a	2.5	7196_CR6
	1.54E-01										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.12 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1118342

Lab Sample Numbers or SDG:JP0170

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?			✓	N/A
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?			✓	N/A
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	N/A
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	N/A

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: The MS recovered low at 65.9%. PDMS recovered at 92.5%. The insoluble MS recovered at 100.4%. Suspect small reducing capacity in the sample.

Analyst: _H.Rahavi_____ Date: 5/2/2011

Second-Level Review: _____ Date: 5/2/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-18273**
NCM Initiated By: Diana Petty
Date Opened: 05/03/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J1D260562 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 1118342,

Nonconformance: QC data exceeded criteria
Subcategory: MS/MSD accuracy and/or precision out of control

Problem Description / Root Cause

Name	Date	Description
Diana Petty	05/03/2011	The MS recovered low at 65.9%. PDMS recovered at 92.5%. The insoluble MS recovered at 100.4%. Suspect small reducing capacity in the sample.

Corrective Action

Name	Date	Corrective Action
Diana Petty	05/03/2011	report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 5/3/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

5/3/2011 11:17:40 AM

Lot No., Due Date: J1D260562; 05/03/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1117130; RGAMMA Gamma by GER
SDG, Matrix: JP0170; 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:
Please see NCM # 10-18268

First Level [signature] Date 5-3-11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1117130

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

Comments on any "No" response: CRDL = 0.1 pCi/g
NCM #: 10-18268

Second Level Review: [signature] Date: 5/3/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18268
NCM Initiated By: John Norton
Date Opened: 05/03/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J1D260562 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 1117130,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
John Norton	05/03/2011	Many of these samples did not meet the CRDL.

Corrective Action

Name	Date	Corrective Action
John Norton	05/03/2011	Due to the priority nature of the samples the data will be presented to the client, the samples can be re-counted for a longer time frame at client request.

Client Notification Summary

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: 5/3/2011

TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-005	Page 1 of 3

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~8L~~ JR 4/26/11 8J	Data Turnaround JR 4/26/11 ~~21 Days~~ 7 Days		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VERIFICATION		SAF No. RC-181
Ice Chest No. NA	Field Logbook No. EL-1651 – 01 JR 4/26/11	COA R00F452000	Method of Shipment JR 4/26/11 ~~FedEx~~ Hand Deliver
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. NA		Bill of Lading/Air Bill No. NA

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Special Handling and/or Storage
Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	See item (2) in Special Instructions.								

J1D260562

Sample No.	Matrix *	Sample Date	Sample Time										EXC
J1HJ32	SOIL	4-26-11	1035		X	X	MHJ MN						1
J1HJ33	SOIL	4-26-11	1005		X	X	MHJ MO						2
J1HJ34	SOIL	4-26-11	1020		X	X	MHJ MP						3
J1HJ35	SOIL	4-26-11	0930		X	X	MHJ MQ						4
J1HJ36	SOIL	4-26-11	0945		X	X	MHJ MR						5

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	4-26-11 1045	Jen Russell Jen Russell	4-26-11 1045
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Jen Russell Jen Russell	4-26-11 1535	Angie Alcala Angie Alcala	4-26-11 1535
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

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}

RC 5-03-11

JP0170

REVIEWED BY AT DATE 4-26-11

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

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

WCH-EE-011

TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-181-005	Page 2 of 3
Collector: RICE, DD	Company Contact: JL Russell	Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH	Price Code: ~~8L~~ 8J 4/26/11
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VERIFICATION		SAF No.: RC-181	Data Turnaround: ~~21 Days~~ 7 Days JR 4/26/11
Ice Chest No.: NA	Field Logbook No.: EL-1651-01 JR 4/26/11	COA: R00F452000	Method of Shipment: ~~FedEx~~ Hand Deliver AJ 4-26-11	
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Special Handling and/or Storage
Cool 4C

SAMPLE ANALYSIS

Preservation				Cool 4C	Cool 4C	None							
Type of Container				G/P	G/P	G/P							
No. of Container(s)				1	1	1							
Volume				60mL	60mL	1000mL							
SAMPLE ANALYSIS				See item (1) in Special Instructions.	Chromium Hex - 7196	See item (2) in Special Instructions.							
Sample No.	Matrix *	Sample Date	Sample Time										EXC
J1HJ37	SOIL	4-26-11	0900		X	X		MHJ	M6				6
J1HJ38	SOIL	4-26-11	0825		X	X		MHJ	M9				7
J1HJ39	SOIL	4-26-11	0845		X	X		MHJ	NA				8
J1HJ40	SOIL	4-26-11	0820		X	X		MHJ	ND				9
J1HJ41	SOIL	4-26-11	0805		X	X		MHJ	NN				10

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	4-26-11 1045	Len Russell / Len Russell	4-26-11 1045
Len Russell / Len Russell	4-26-11 1535	[illegible]	1535 4-26-11

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 7-26-11

JP017D

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

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

WCH-EE-011

TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-005	Page 3 of 3
Collector: RICE, DD	Company Contact: JL Russell; Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH	Price Code: ~~8L~~ 4/26/11 JR 8J; Data Turnaround: ~~21 Days~~ 4/26/11 JR 7 Days
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VERIFICATION	SAF No.: RC-181	
Ice Chest No.: NA	Field Logbook No.: EL-1651 -01 JR 4/26/11; COA: R00F452000	Method of Shipment: ~~FedEx~~ Hand Deliver JR 4/26/11	
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Special Handling and/or Storage
Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions. 4/26/11	Chromium Hex - 7196	See item (2) in Special Instructions.								

Sample No.	Matrix *	Sample Date	Sample Time										
J1HJ42	SOIL	4-26-11	0810		X	X	MHJNQ						EXC-11
J1HJ43	SOIL	4-26-11	0800		X	X	MHJNR						EXC-12
J1HJ44	SOIL	4-26-11	0825		X	X	MHJNO						DUP
J1HJ45	SOIL	4-26-11	1040		JR 4/26/11								EB

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David O. Rice	4-26-11 1045	Jen Russell Jen Russell	4-26-11 1045
Jen Russell Jen Russell (WCH)	4-26-11 1535	TAM	1535 4-26-11

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}

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

REVIEWED BY AJ DATE 4-26-11

JP0170

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

Sample Check-in List

Date/Time Received: 4-26-11 1535 GM Screen Result (out) .2 (in) .6 Initials [RR]

Client: WCH SDG #: JP0170 NA [ ] SAF #: RC-181 NA [ ]

Work Order Number: J1D260562 Chain of Custody # RC-181-005

Shipping Container ID: HAND Delivered NA [ ] Air Bill # _____ NA [RR]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 14 Samples @ Multiple Containers 13 WR 4/26/11
7. Sample holding times exceeded? NA [ ] Yes [ ] No [RR]
8. Samples have:
   ____tape ____hazard labels
   RR custody seals RR appropriate sample labels J1D260562
   Soil
9. Samples:
   RR are in good condition ____are leaking
   ____are broken ____have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [RR] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : N/A
11. Sample Location, Sample Collector Listed? * Yes [RR] No [RR] RR 4.26.11
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [RR]
13. Description of anomalies (include sample numbers): NA [RR]

See other side for additional comments

Sample Custodian: Ryan Robson Date: 4-26-11 1535

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

WR No action necessary; process as is

Project Manager Whitney Ritari Date 4/26/11

LS-023, Rev. 12, 10/10

WCH SOIL Reg Libr

4/28/2011 9:21:07 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: 05/03/2011

Sep1 DT/Tm Tech:

Batch: 1117130 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: DWEA, 1117130 AXTA,

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 MHJMN-1-AC J1D260562-1-SAMP 04/26/2011 10:35			358.10g,in AmtRec: 1XJAR60MLG,1XLP	358.10g #Containers: 2		5200 gec	20 Dmin	G10 Scr:	1424 Alpha:	4/28/11 mc Beta:	
2 MHJMN-1-AD-X J1D260562-1-DUP 04/26/2011 10:35			363.00g,in AmtRec: 1XJAR60MLG,1XLP	363.00g #Containers: 2				G11 Scr:	0647 Alpha:	4/29/11 s Beta:	
3 MHJM0-1-AC J1D260562-2-SAMP 04/26/2011 10:05			361.10g,in AmtRec: 1XJAR60MLG,1XLP	361.10g #Containers: 2				G10 Scr:	1749 Alpha:	4/28/11 mc Beta:	
4 MHJM2-1-AC J1D260562-3-SAMP 04/26/2011 10:20			293.70g,in AmtRec: 1XJAR60MLG,1XLP	293.70g #Containers: 2				G10 Scr:	2232 Alpha:	4/28/11 DAQ Beta:	
5 MHJM4-1-AC J1D260562-4-SAMP 04/26/2011 09:30			344.50g,in AmtRec: 1XJAR60MLG,1XLP	344.50g #Containers: 2				G14 Scr:	2233 Alpha:	Beta:	
6 MHJM6-1-AC J1D260562-5-SAMP 04/26/2011 09:45			347.70g,in AmtRec: 1XJAR60MLG,1XLP	347.70g #Containers: 2				G14 Scr:	0648 Alpha:	4/29/11 s Beta:	
7 MHJM8-1-AC J1D260562-6-SAMP 04/26/2011 09:00			337.50g,in AmtRec: 1XJAR60MLG,1XLP	337.50g #Containers: 2				G7 Scr:	0648 Alpha:	Beta:	

TestAmerica Laboratories, Inc.

40

TestAmerica Laboratories, Inc.

4/28/2011 9:21:08 AM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Balance Id:1120421763
Pipet #:

AnalyDueDate: 05/03/2011

Sep1 DT/Tm Tech:

Batch: 1117130 SOIL pCi/g PM, Quote: RW2, 27038
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:
8 MHJM9-1-AC J1D260562-7-SAMP 04/26/2011 08:25			332.60g,in	332.60g		5200geo	200min	613	0608	4/29/11	
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
9 MHJNA-1-AC J1D260562-8-SAMP 04/26/2011 08:45			335.40g,in	335.40g				610	0608		
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
10 MHJND-1-AC J1D260562-9-SAMP 04/26/2011 08:20			321.50g,in	321.50g				611	1108	4/29/11	
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
11 MHJNN-1-AC J1D260562-10-SAMP 04/26/2011 08:05			339.40g,in	339.40g				614	1108		
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
12 MHJNQ-1-AC J1D260562-11-SAMP 04/26/2011 08:10			350.10g,in	350.10g				617	1109		
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
13 MHJNR-1-AC J1D260562-12-SAMP 04/26/2011 08:00			306.20g,in	306.20g				610	1110		
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:
14 MHJN0-1-AC J1D260562-13-SAMP 04/26/2011 08:25			337.20g,in	337.20g				614	1435	4/29/11	
			AmtRec: 1XJAR60MLG,1XLP	#Containers: 2				Scr:	Alpha:		Beta:

TestAmerica Laboratories, Inc.

4/28/2011 9:21:08 AM

Sample Preparation/Analysis

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

Balance Id:1120421763
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BouslaughP

AnalyDueDate: 05/03/2011

Batch: 1117130 pCi/g
SEQ Batch, Test: None

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 MHJ0W-1-AA-B J1D270000-130-BLK 04/27/2011 09:08 pd			348.00g,in AmtRec:	348.00g #Containers: 1		S200 gec	20hr,in	G11 Scr:	1438 Alpha:	4/29/11 m Beta:	
16 MHJ0W-1-AC-C J1D270000-130-LCS 04/27/2011 09:08 pd			350.10g,in AmtRec:	350.10g #Containers: 1	QC20009 08/04/09,pd 09/01/09,r			G7 Scr:	1437 Alpha:	Beta:	

Comments:

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

MHJMN1AC-SAMP Constituent List:

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

MHJ0W1AA-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:

MHJ0W1AC-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						

MHJMN1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHJ0W1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHJ0W1AC-LCS:

4/28/2011 9:21:09 AM

Sample Preparation/Analysis

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

Balance Id:1120421763

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP

AnalyDueDate: 05/03/2011

Batch: 1117130 pCi/g
SEQ Batch, Test: None

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

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

5/3/2011 11:13:01 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2010, 5/8/2011, Batch: '1117130', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1117130						
AC		Rev1C	BouslaughP	4/27/2011 12:41:29		
SC			mcginnist	IsBatched	4/27/2011 9:08:45 AM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	4/27/2011 12:41:29 PM	RL-GAM-001 REVISION 1
SC			SannohS	InPrep	4/28/2011 9:12:06 AM	RL-GAM-001 REVISION 1
SC			BouslaughP	Prep1C	4/28/2011 9:29:43 AM	RL-GAM-001 REVISION 1
SC			ClarkR	InCnt1	4/28/2011 9:32:19 AM	RL-CI-006 REVISION 1
SC			ClarkR	CalcC	4/29/2011 5:54:16 PM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	5/3/2011 11:02:52 AM	RL-DR-001 Rev 2
AC			SannohS	4/28/2011 9:12:06		
AC			BouslaughP	4/28/2011 9:29:43		
AC			ClarkR	4/28/2011 9:32:19		
AC			ClarkR	4/29/2011 5:54:16 PM		
AC			nortonj	5/3/2011 11:02:52		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

04/28/2011 4:33:08 PM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech: pbc 10.1
Prep Tech: JP 0170

AnalyDueDate: 05/03/2011

Batch: 1118342 SOIL mg/kg PM, Quote: RW2, 27038
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:
1 MHJMN-1-AA										
J1D260562-1-SAMP		2.5078								
04/26/2011 10:35		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
2 MHJMN-1-AE-S										
J1D260562-1-MS		2.5092								
04/26/2011 10:35		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
3 MHJMN-1-AF-X										
J1D260562-1-DUP		2.5039		- pbcr4 2.5034						
04/26/2011 10:35		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
4 MHJM0-1-AA										
J1D260562-2-SAMP		2.5049								
04/26/2011 10:05		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
5 MHJM2-1-AA										
J1D260562-3-SAMP		2.5212								
04/26/2011 10:20		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
6 MHJM4-1-AA										
J1D260562-4-SAMP		2.5065								
04/26/2011 09:30		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:
7 MHJM6-1-AA										
J1D260562-5-SAMP		2.5043								
04/26/2011 09:45		AmtRec: 1XJAR60MLG,1XLP		#Containers: 2				Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

43

4/28/2011 4:33:08 PM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Pipet #:

AnalyDueDate: 05/03/2011

Sep1 DT/Tm Tech:

Batch: 1118342 SOIL mg/kg 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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MHJM8-1-AA J1D260562-6-SAMP 04/26/2011 09:00		2.5098 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
9 MHJM9-1-AA J1D260562-7-SAMP 04/26/2011 08:25		2.5067 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
10 MHJNA-1-AA J1D260562-8-SAMP 04/26/2011 08:45		2.5141 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
11 MHJND-1-AA J1D260562-9-SAMP 04/26/2011 08:20		2.5241 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
12 MHJNN-1-AA J1D260562-10-SAMP 04/26/2011 08:05		2.5070 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
13 MHJNQ-1-AA J1D260562-11-SAMP 04/26/2011 08:10		2.5160 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:
14 MHJNR-1-AA J1D260562-12-SAMP 04/26/2011 08:00		2.5117 AmtRec: 1XJAR60MLG,1XLP	#Containers: 2					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

04/28/2011 4:33:09 PM

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

AnalyDueDate: 05/03/2011

Batch: 1118342 SOIL mg/kg

SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: RW2, 27038

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 MHJN0-1-AA										
J1D260562-13-SAMP 2.5223										
04/26/2011 08:25	AmtRec: 1XJAR60MLG,1XLP	#Containers: 2						Scr:	Alpha:	Beta:
16 MHM1F-1-AA-B										
J1D280000-342-BLK										
04/28/2011 16:33 pd	AmtRec:	#Containers: 1						Scr:	Alpha:	Beta:
17 MHM1F-1-AC-C										
J1D280000-342-LCS										
04/28/2011 16:33 pd	AmtRec:	#Containers: 1						Scr:	Alpha:	Beta:

Comments:

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

MHJMN1AA-SAMP Constituent List:
HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20
MHJMN1AE-MS Constituent List:

MHM1F1AA-BLK:

MHM1F1AC-LCS:

MHJMN1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHJMN1AE-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHM1F1AA-BLK:
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: 280-15153-1

SDG Number: JP0170

Job Description: SAF# RC-181

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
5/5/2011 10:41 AM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
05/05/2011

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 38

Qc Association Summary 39

Qc Reports 42

Client Chain of Custody 49

Sample Receipt Checklist 52

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-15153-1

SDG #: JP0170
SAF#: RC-181

Date SDG Closed: April 28, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1HJ32	280-15153-1	6010/7471	6010B/7471A
J1HJ33	280-15153-2	6010/7471	6010B/7471A
J1HJ34	280-15153-3	6010/7471	6010B/7471A
J1HJ35	280-15153-4	6010/7471	6010B/7471A
J1HJ36	280-15153-5	6010/7471	6010B/7471A
J1HJ37	280-15153-6	6010/7471	6010B/7471A
J1HJ38	280-15153-7	6010/7471	6010B/7471A
J1HJ39	280-15153-8	6010/7471	6010B/7471A
J1HJ40	280-15153-9	6010/7471	6010B/7471A
J1HJ41	280-15153-10	6010/7471	6010B/7471A
J1HJ42	280-15153-11	6010/7471	6010B/7471A
J1HJ43	280-15153-12	6010/7471	6010B/7471A
J1HJ44	280-15153-13	6010/7471	6010B/7471A
J1HJ45	280-15153-14	6010/7471	6010B/7471A

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

The results, RLs and MDLs included in this report have been adjusted for dry weight, as appropriate.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 4/28/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 4.6 C, 3.8 C and 4.8 C.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-64645 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. Due to high constituent concentration, the Mercury analysis of sample J1HJ32 had to be performed at a dilution. The reporting limit has been adjusted relative to the dilution required.

Low levels of Chromium are present in the method blank associated with batch 280-64645. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1HJ32; therefore, control limits are not applicable.

Silicon was recovered outside the control limits in the SW846 6010B Matrix Spike performed on sample J1HJ32, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The SW846 6010B duplicate analysis of sample J1HJ32 exhibited RPD data outside the control limits for Arsenic and Beryllium, and the associated sample results have been flagged "M". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
General Chemistry		
	U	Analyzed for but not detected.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Method	Analyst	Analyst ID
SW846 6010B	Harre, John K	JKH
SW846 7471A	Niman, Katie M	KMN
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-15153-1	J1HJ32	Solid	04/26/2011 1035	04/28/2011 0930
280-15153-2	J1HJ33	Solid	04/26/2011 1005	04/28/2011 0930
280-15153-3	J1HJ34	Solid	04/26/2011 1020	04/28/2011 0930
280-15153-4	J1HJ35	Solid	04/26/2011 0930	04/28/2011 0930
280-15153-5	J1HJ36	Solid	04/26/2011 0945	04/28/2011 0930
280-15153-6	J1HJ37	Solid	04/26/2011 0900	04/28/2011 0930
280-15153-7	J1HJ38	Solid	04/26/2011 0825	04/28/2011 0930
280-15153-8	J1HJ39	Solid	04/26/2011 0845	04/28/2011 0930
280-15153-9	J1HJ40	Solid	04/26/2011 0820	04/28/2011 0930
280-15153-10	J1HJ41	Solid	04/26/2011 0805	04/28/2011 0930
280-15153-11	J1HJ42	Solid	04/26/2011 0810	04/28/2011 0930
280-15153-12	J1HJ43	Solid	04/26/2011 0800	04/28/2011 0930
280-15153-13	J1HJ44	Solid	04/26/2011 0825	04/28/2011 0930
280-15153-14EB	J1HJ45	Solid	04/26/2011 1040	04/28/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ32**

Lab Sample ID: 280-15153-1
Client Matrix: Solid
% Moisture: 11.9

Date Sampled: 04/26/2011 1035
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/02/2011 2136			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7080		1.7	5.6
Antimony		0.42	U	0.42	0.67
Arsenic		2.9	M	0.73	1.1
Barium		78.7		0.085	0.56
Beryllium		0.042	B M	0.037	0.22
Boron		1.1	U	1.1	2.2
Cadmium		0.50		0.046	0.22
Calcium		3060	X	15.7	55.6
Chromium		44.8		0.065	0.22
Cobalt		6.6	X	0.11	1.1
Copper		16.7		0.24	1.1
Iron		16600		4.2	5.6
Lead		17.7		0.30	0.56
Magnesium		3330	X	4.1	22.2
Manganese		321		0.11	1.1
Molybdenum		0.30	B	0.29	2.2
Nickel		9.9	X	0.14	4.4
Potassium		807		45.6	334
Selenium		0.96	U	0.96	1.1
Silicon		164	N	6.3	11.1
Silver		0.18	B	0.18	0.22
Sodium		192		65.6	133
Vanadium		41.9		0.10	2.2
Zinc		105	X	0.44	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	2.0			Initial Weight/Volume:	0.68 g
Analysis Date:	05/02/2011 1504			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.1		0.011	0.034

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ33**

Lab Sample ID: 280-15153-2
Client Matrix: Solid
% Moisture: 11.1

Date Sampled: 04/26/2011 1005
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	05/02/2011 2145			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8210		1.6	5.3
Antimony		0.40	U	0.40	0.63
Arsenic		2.0		0.69	1.1
Barium		71.5		0.080	0.53
Beryllium		0.047	B	0.035	0.21
Boron		1.0	U	1.0	2.1
Cadmium		0.068	B	0.043	0.21
Calcium		3660	X	14.8	52.6
Chromium		48.4		0.061	0.21
Cobalt		6.2	X	0.11	1.1
Copper		16.6		0.23	1.1
Iron		18600		4.0	5.3
Lead		5.5		0.28	0.53
Magnesium		4650	X	3.9	21.0
Manganese		253		0.11	1.1
Molybdenum		0.27	U	0.27	2.1
Nickel		10.9	X	0.13	4.2
Potassium		842		43.1	316
Selenium		0.90	U	0.90	1.1
Silicon		131		6.0	10.5
Silver		0.17	U	0.17	0.21
Sodium		244		62.1	126
Vanadium		46.8		0.099	2.1
Zinc		41.4	X	0.42	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	05/02/2011 1433			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.015	B	0.0060	0.019

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ34**

Lab Sample ID: 280-15153-3
Client Matrix: Solid
% Moisture: 14.5

Date Sampled: 04/26/2011 1020
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	05/02/2011 2147			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6640		1.6	5.3
Antimony		0.40	U	0.40	0.64
Arsenic		3.0		0.70	1.1
Barium		63.3		0.081	0.53
Beryllium		0.048	B	0.035	0.21
Boron		1.0	U	1.0	2.1
Cadmium		0.17	B	0.044	0.21
Calcium		3370	X	15.0	53.2
Chromium		34.5		0.062	0.21
Cobalt		6.4	X	0.11	1.1
Copper		12.5		0.23	1.1
Iron		16200		4.0	5.3
Lead		7.4		0.29	0.53
Magnesium		4120	X	3.9	21.3
Manganese		279		0.11	1.1
Molybdenum		0.28	U	0.28	2.1
Nickel		11.3	X	0.13	4.3
Potassium		983		43.6	319
Selenium		0.91	U	0.91	1.1
Silicon		176		6.0	10.6
Silver		0.17	U	0.17	0.21
Sodium		196		62.8	128
Vanadium		37.7		0.10	2.1
Zinc		53.6	X	0.42	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	05/02/2011 1435			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.28		0.0061	0.019

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ35**

Lab Sample ID: 280-15153-4
Client Matrix: Solid
% Moisture: 11.6

Date Sampled: 04/26/2011 0930
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/02/2011 2150			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8230		1.5	4.8
Antimony		0.36	U	0.36	0.58
Arsenic		2.0		0.63	0.96
Barium		75.7		0.073	0.48
Beryllium		0.12	B	0.032	0.19
Boron		0.94	U	0.94	1.9
Cadmium		0.058	B	0.039	0.19
Calcium		3300	X	13.5	47.9
Chromium		28.9		0.056	0.19
Cobalt		5.3	X	0.096	0.96
Copper		18.0		0.21	0.96
Iron		13900		3.6	4.8
Lead		3.4		0.26	0.48
Magnesium		4480	X	3.5	19.2
Manganese		220		0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Nickel		10.8	X	0.12	3.8
Potassium		746		39.3	288
Selenium		0.82	U	0.82	0.96
Silicon		157		5.4	9.6
Silver		0.15	U	0.15	0.19
Sodium		173		56.6	115
Vanadium		34.2		0.090	1.9
Zinc		32.1	X	0.38	0.96

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	05/02/2011 1437			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0082	B	0.0062	0.019

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ36**

Lab Sample ID: 280-15153-5
Client Matrix: Solid
% Moisture: 11.4

Date Sampled: 04/26/2011 0945
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/02/2011 2201			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8080		1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		2.0		0.63	0.96
Barium		70.9		0.073	0.48
Beryllium		0.12	B	0.032	0.19
Boron		0.94	U	0.94	1.9
Cadmium		0.059	B	0.039	0.19
Calcium		3330	X	13.5	47.8
Chromium		27.5		0.055	0.19
Cobalt		5.5	X	0.096	0.96
Copper		17.0		0.21	0.96
Iron		14100		3.6	4.8
Lead		3.5		0.26	0.48
Magnesium		4630	X	3.5	19.1
Manganese		235		0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Nickel		10.8	X	0.12	3.8
Potassium		765		39.2	287
Selenium		0.82	U	0.82	0.96
Silicon		133		5.4	9.6
Silver		0.15	U	0.15	0.19
Sodium		183		56.5	115
Vanadium		34.4		0.090	1.9
Zinc		33.6	X	0.38	0.96

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	05/02/2011 1444			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0059	0.018

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ37**

Lab Sample ID: 280-15153-6
Client Matrix: Solid
% Moisture: 12.2

Date Sampled: 04/26/2011 0900
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	05/02/2011 2203			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7880		1.5	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		2.3		0.66	1.0
Barium		65.4		0.076	0.50
Beryllium		0.11	B	0.033	0.20
Boron		0.98	U	0.98	2.0
Cadmium		0.044	B	0.041	0.20
Calcium		3140	X	14.1	50.0
Chromium		32.3		0.058	0.20
Cobalt		5.2	X	0.10	1.0
Copper		17.5		0.22	1.0
Iron		13800		3.8	5.0
Lead		3.3		0.27	0.50
Magnesium		4510	X	3.7	20.0
Manganese		214		0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Nickel		11.4	X	0.12	4.0
Potassium		719		41.0	300
Selenium		0.86	U	0.86	1.0
Silicon		148		5.7	10
Silver		0.16	U	0.16	0.20
Sodium		183		59.0	120
Vanadium		32.7		0.094	2.0
Zinc		32.3	X	0.40	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	05/02/2011 1447			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0081	B	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ38**

Lab Sample ID: 280-15153-7
Client Matrix: Solid
% Moisture: 15.7

Date Sampled: 04/26/2011 0825
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	05/02/2011 2205			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7890		1.8	5.7
Antimony		0.43	U	0.43	0.68
Arsenic		1.6		0.75	1.1
Barium		69.7		0.087	0.57
Beryllium		0.11	B	0.038	0.23
Boron		1.1	U	1.1	2.3
Cadmium		0.074	B	0.047	0.23
Calcium		3480	X	16.1	57.1
Chromium		22.0		0.066	0.23
Cobalt		5.4	X	0.11	1.1
Copper		17.3		0.25	1.1
Iron		14100		4.3	5.7
Lead		3.5		0.31	0.57
Magnesium		4580	X	4.2	22.8
Manganese		255		0.11	1.1
Molybdenum		0.30	U	0.30	2.3
Nickel		11.0	X	0.14	4.6
Potassium		766		46.8	342
Selenium		0.98	U	0.98	1.1
Silicon		181		6.5	11.4
Silver		0.18	U	0.18	0.23
Sodium		199		67.3	137
Vanadium		33.8		0.11	2.3
Zinc		35.1	X	0.45	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	05/02/2011 1454			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0085	B	0.0061	0.019

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ39**

Lab Sample ID: 280-15153-8
Client Matrix: Solid
% Moisture: 14.7

Date Sampled: 04/26/2011 0845
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Analysis Date:	05/02/2011 2207			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8060		1.6	5.1
Antimony		0.39	U	0.39	0.61
Arsenic		2.3		0.67	1.0
Barium		68.6		0.077	0.51
Beryllium		0.12	B	0.034	0.20
Boron		1.0	U	1.0	2.0
Cadmium		0.042	U	0.042	0.20
Calcium		3300	X	14.4	51.0
Chromium		28.2		0.059	0.20
Cobalt		5.4	X	0.10	1.0
Copper		17.0		0.22	1.0
Iron		13700		3.9	5.1
Lead		3.1		0.28	0.51
Magnesium		4570	X	3.8	20.4
Manganese		225		0.10	1.0
Molybdenum		0.27	U	0.27	2.0
Nickel		10.3	X	0.13	4.1
Potassium		723		41.8	306
Selenium		0.88	U	0.88	1.0
Silicon		158		5.8	10.2
Silver		0.16	U	0.16	0.20
Sodium		184		60.2	122
Vanadium		33.4		0.096	2.0
Zinc		32.7	X	0.41	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	05/02/2011 1456			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0085	B	0.0059	0.018

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ40**

Lab Sample ID: 280-15153-9
Client Matrix: Solid
% Moisture: 13.5

Date Sampled: 04/26/2011 0820
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	05/02/2011 2210			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7540		1.6	5.2
Antimony		0.40	U	0.40	0.63
Arsenic		1.9		0.69	1.0
Barium		65.7		0.079	0.52
Beryllium		0.094	B	0.034	0.21
Boron		1.0	U	1.0	2.1
Cadmium		0.097	B	0.043	0.21
Calcium		3300	X	14.7	52.1
Chromium		27.5		0.060	0.21
Cobalt		5.3	X	0.10	1.0
Copper		16.3		0.23	1.0
Iron		14600		4.0	5.2
Lead		4.3		0.28	0.52
Magnesium		4450	X	3.9	20.8
Manganese		234		0.10	1.0
Molybdenum		0.44	B	0.27	2.1
Nickel		11.4	X	0.13	4.2
Potassium		836		42.7	313
Selenium		0.90	U	0.90	1.0
Silicon		121		5.9	10.4
Silver		0.17	U	0.17	0.21
Sodium		183		61.5	125
Vanadium		33.0		0.098	2.1
Zinc		39.3	X	0.41	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	05/02/2011 1458			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0094	B	0.0061	0.019

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ41**

Lab Sample ID: 280-15153-10
Client Matrix: Solid
% Moisture: 8.1

Date Sampled: 04/26/2011 0805
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	05/02/2011 2212			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7400		1.6	5.1
Antimony		0.39	U	0.39	0.61
Arsenic		1.8		0.67	1.0
Barium		72.3		0.077	0.51
Beryllium		0.11	B	0.034	0.20
Boron		1.0	U	1.0	2.0
Cadmium		0.070	B	0.042	0.20
Calcium		3360	X	14.3	50.8
Chromium		15.5		0.059	0.20
Cobalt		5.5	X	0.10	1.0
Copper		17.1		0.22	1.0
Iron		13500		3.9	5.1
Lead		3.8		0.27	0.51
Magnesium		4530	X	3.8	20.3
Manganese		291		0.10	1.0
Molybdenum		0.26	B	0.26	2.0
Nickel		10.8	X	0.13	4.1
Potassium		835		41.7	305
Selenium		0.87	U	0.87	1.0
Silicon		134		5.8	10.2
Silver		0.16	U	0.16	0.20
Sodium		175		60.0	122
Vanadium		33.0		0.096	2.0
Zinc		34.2	X	0.40	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.67 g
Analysis Date:	05/02/2011 1507			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0069	B	0.0054	0.017

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ42**

Lab Sample ID: 280-15153-11
Client Matrix: Solid
% Moisture: 9.2

Date Sampled: 04/26/2011 0810
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	05/02/2011 2214			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7770		1.6	5.2
Antimony		0.39	U	0.39	0.62
Arsenic		2.0		0.69	1.0
Barium		65.9		0.079	0.52
Beryllium		0.11	B	0.034	0.21
Boron		1.0	U	1.0	2.1
Cadmium		0.049	B	0.043	0.21
Calcium		3260	X	14.7	52.0
Chromium		16.3		0.060	0.21
Cobalt		5.6	X	0.10	1.0
Copper		17.2		0.23	1.0
Iron		13900		3.9	5.2
Lead		3.4		0.28	0.52
Magnesium		4500	X	3.8	20.8
Manganese		291		0.10	1.0
Molybdenum		0.27	U	0.27	2.1
Nickel		11.0	X	0.13	4.2
Potassium		752		42.6	312
Selenium		0.89	U	0.89	1.0
Silicon		123		5.9	10.4
Silver		0.17	U	0.17	0.21
Sodium		189		61.3	125
Vanadium		35.0		0.098	2.1
Zinc		33.7	X	0.41	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	05/02/2011 1509			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0083	B	0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ43**

Lab Sample ID: 280-15153-12
Client Matrix: Solid
% Moisture: 6.0

Date Sampled: 04/26/2011 0800
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	05/02/2011 2216			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7100		1.5	4.7
Antimony		0.36	U	0.36	0.56
Arsenic		2.7		0.62	0.94
Barium		65.7		0.072	0.47
Beryllium		0.080	B	0.031	0.19
Boron		1.7	B	0.92	1.9
Cadmium		0.19		0.039	0.19
Calcium		3920	X	13.3	47.1
Chromium		19.3		0.055	0.19
Cobalt		5.6	X	0.094	0.94
Copper		12.3		0.20	0.94
Iron		14700		3.6	4.7
Lead		6.3		0.25	0.47
Magnesium		4170	X	3.5	18.8
Manganese		258		0.094	0.94
Molybdenum		0.24	U	0.24	1.9
Nickel		10.7	X	0.12	3.8
Potassium		1410		38.6	282
Selenium		0.81	U	0.81	0.94
Silicon		197		5.3	9.4
Silver		0.15	U	0.15	0.19
Sodium		242		55.5	113
Vanadium		34.9		0.088	1.9
Zinc		47.0	X	0.37	0.94

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	05/02/2011 1511			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ44**

Lab Sample ID: 280-15153-13
Client Matrix: Solid
% Moisture: 21.2

Date Sampled: 04/26/2011 0825
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	05/02/2011 2218			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6970		1.8	5.8
Antimony		0.44	U	0.44	0.69
Arsenic		2.4		0.76	1.2
Barium		72.1		0.088	0.58
Beryllium		0.077	B	0.038	0.23
Boron		1.1	U	1.1	2.3
Cadmium		0.17	B	0.047	0.23
Calcium		3540	X	16.3	57.6
Chromium		26.1		0.067	0.23
Cobalt		6.0	X	0.12	1.2
Copper		17.4		0.25	1.2
Iron		15700		4.4	5.8
Lead		5.3		0.31	0.58
Magnesium		4260	X	4.3	23.1
Manganese		268		0.12	1.2
Molybdenum		0.72	B	0.30	2.3
Nickel		12.2	X	0.14	4.6
Potassium		938		47.3	346
Selenium		0.99	U	0.99	1.2
Silicon		182		6.5	11.5
Silver		0.18	U	0.18	0.23
Sodium		241		68.0	138
Vanadium		34.9		0.11	2.3
Zinc		45.8	X	0.46	1.2

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	05/02/2011 1514			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.013	B	0.0069	0.021

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Client Sample ID: **J1HJ45**

Lab Sample ID: 280-15153-14EB
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 04/26/2011 1040
Date Received: 04/28/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65251	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/02/2011 2221			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		230		1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		0.65	U	0.65	0.98
Barium		2.8		0.075	0.49
Beryllium		0.053	B	0.032	0.20
Boron		0.96	U	0.96	2.0
Cadmium		0.040	U	0.040	0.20
Calcium		71.1	X	13.8	49.0
Chromium		0.22		0.057	0.20
Cobalt		0.15	B X	0.098	0.98
Copper		0.34	B	0.21	0.98
Iron		1250		3.7	4.9
Lead		0.72		0.26	0.49
Magnesium		35.5	X	3.6	19.6
Manganese		23.1		0.098	0.98
Molybdenum		0.26	U	0.26	2.0
Nickel		0.31	B X	0.12	3.9
Potassium		60.1	B	40.2	294
Selenium		0.84	U	0.84	0.98
Silicon		114		5.6	9.8
Silver		0.16	U	0.16	0.20
Sodium		57.9	U	57.9	118
Vanadium		1.2	B	0.092	2.0
Zinc		2.6	X	0.39	0.98

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	05/02/2011 1516			Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0054	U	0.0054	0.017

General Chemistry

Client Sample ID: **J1HJ32**

Lab Sample ID: 280-15153-1
Client Matrix: Solid

Date Sampled: 04/26/2011 1035
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ33**

Lab Sample ID: 280-15153-2
Client Matrix: Solid

Date Sampled: 04/26/2011 1005
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ34**

Lab Sample ID: 280-15153-3
Client Matrix: Solid

Date Sampled: 04/26/2011 1020
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1HJ35**

Lab Sample ID: 280-15153-4
Client Matrix: Solid

Date Sampled: 04/26/2011 0930
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ36**

Lab Sample ID: 280-15153-5
Client Matrix: Solid

Date Sampled: 04/26/2011 0945
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1HJ37**

Lab Sample ID: 280-15153-6
Client Matrix: Solid

Date Sampled: 04/26/2011 0900
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.2		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ38**

Lab Sample ID: 280-15153-7
Client Matrix: Solid

Date Sampled: 04/26/2011 0825
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ39**

Lab Sample ID: 280-15153-8
Client Matrix: Solid

Date Sampled: 04/26/2011 0845
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ40**

Lab Sample ID: 280-15153-9
Client Matrix: Solid

Date Sampled: 04/26/2011 0820
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	13.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1HJ41**

Lab Sample ID: 280-15153-10
Client Matrix: Solid

Date Sampled: 04/26/2011 0805
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ42**

Lab Sample ID: 280-15153-11
Client Matrix: Solid

Date Sampled: 04/26/2011 0810
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.2		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ43**

Lab Sample ID: 280-15153-12
Client Matrix: Solid

Date Sampled: 04/26/2011 0800
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.0		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

General Chemistry

Client Sample ID: **J1HJ44**

Lab Sample ID: 280-15153-13
Client Matrix: Solid

Date Sampled: 04/26/2011 0825
Date Received: 04/28/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	21.2		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

General Chemistry

Client Sample ID: **J1HJ45**

Lab Sample ID: 280-15153-14EB
Client Matrix: Solid

Date Sampled: 04/26/2011 1040
Date Received: 04/28/2011 0930

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

Analysis Batch: 280-64741 Analysis Date: 04/29/2011 0806 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-64645					
LCS 280-64645/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-64645/1-A	Method Blank	T	Solid	3050B	
280-15153-1	J1HJ32	T	Solid	3050B	
280-15153-1DU	Duplicate	T	Solid	3050B	
280-15153-1MS	Matrix Spike	T	Solid	3050B	
280-15153-2	J1HJ33	T	Solid	3050B	
280-15153-3	J1HJ34	T	Solid	3050B	
280-15153-4	J1HJ35	T	Solid	3050B	
280-15153-5	J1HJ36	T	Solid	3050B	
280-15153-6	J1HJ37	T	Solid	3050B	
280-15153-7	J1HJ38	T	Solid	3050B	
280-15153-8	J1HJ39	T	Solid	3050B	
280-15153-9	J1HJ40	T	Solid	3050B	
280-15153-10	J1HJ41	T	Solid	3050B	
280-15153-11	J1HJ42	T	Solid	3050B	
280-15153-12	J1HJ43	T	Solid	3050B	
280-15153-13	J1HJ44	T	Solid	3050B	
280-15153-14EB	J1HJ45	T	Solid	3050B	
Prep Batch: 280-64679					
LCS 280-64679/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-64679/1-A	Method Blank	T	Solid	7471A	
280-15153-1	J1HJ32	T	Solid	7471A	
280-15153-2	J1HJ33	T	Solid	7471A	
280-15153-3	J1HJ34	T	Solid	7471A	
280-15153-4	J1HJ35	T	Solid	7471A	
280-15153-4DU	Duplicate	T	Solid	7471A	
280-15153-4MS	Matrix Spike	T	Solid	7471A	
280-15153-5	J1HJ36	T	Solid	7471A	
280-15153-6	J1HJ37	T	Solid	7471A	
280-15153-7	J1HJ38	T	Solid	7471A	
280-15153-8	J1HJ39	T	Solid	7471A	
280-15153-9	J1HJ40	T	Solid	7471A	
280-15153-10	J1HJ41	T	Solid	7471A	
280-15153-11	J1HJ42	T	Solid	7471A	
280-15153-12	J1HJ43	T	Solid	7471A	
280-15153-13	J1HJ44	T	Solid	7471A	
280-15153-14EB	J1HJ45	T	Solid	7471A	

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-65251					
LCS 280-64645/2-A	Lab Control Sample	T	Solid	6010B	280-64645
MB 280-64645/1-A	Method Blank	T	Solid	6010B	280-64645
280-15153-1	J1HJ32	T	Solid	6010B	280-64645
280-15153-1DU	Duplicate	T	Solid	6010B	280-64645
280-15153-1MS	Matrix Spike	T	Solid	6010B	280-64645
280-15153-2	J1HJ33	T	Solid	6010B	280-64645
280-15153-3	J1HJ34	T	Solid	6010B	280-64645
280-15153-4	J1HJ35	T	Solid	6010B	280-64645
280-15153-5	J1HJ36	T	Solid	6010B	280-64645
280-15153-6	J1HJ37	T	Solid	6010B	280-64645
280-15153-7	J1HJ38	T	Solid	6010B	280-64645
280-15153-8	J1HJ39	T	Solid	6010B	280-64645
280-15153-9	J1HJ40	T	Solid	6010B	280-64645
280-15153-10	J1HJ41	T	Solid	6010B	280-64645
280-15153-11	J1HJ42	T	Solid	6010B	280-64645
280-15153-12	J1HJ43	T	Solid	6010B	280-64645
280-15153-13	J1HJ44	T	Solid	6010B	280-64645
280-15153-14EB	J1HJ45	T	Solid	6010B	280-64645
Analysis Batch:280-65262					
LCS 280-64679/2-A	Lab Control Sample	T	Solid	7471A	280-64679
MB 280-64679/1-A	Method Blank	T	Solid	7471A	280-64679
280-15153-1	J1HJ32	T	Solid	7471A	280-64679
280-15153-2	J1HJ33	T	Solid	7471A	280-64679
280-15153-3	J1HJ34	T	Solid	7471A	280-64679
280-15153-4	J1HJ35	T	Solid	7471A	280-64679
280-15153-4DU	Duplicate	T	Solid	7471A	280-64679
280-15153-4MS	Matrix Spike	T	Solid	7471A	280-64679
280-15153-5	J1HJ36	T	Solid	7471A	280-64679
280-15153-6	J1HJ37	T	Solid	7471A	280-64679
280-15153-7	J1HJ38	T	Solid	7471A	280-64679
280-15153-8	J1HJ39	T	Solid	7471A	280-64679
280-15153-9	J1HJ40	T	Solid	7471A	280-64679
280-15153-10	J1HJ41	T	Solid	7471A	280-64679
280-15153-11	J1HJ42	T	Solid	7471A	280-64679
280-15153-12	J1HJ43	T	Solid	7471A	280-64679
280-15153-13	J1HJ44	T	Solid	7471A	280-64679
280-15153-14EB	J1HJ45	T	Solid	7471A	280-64679

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-64741					
280-15153-1	J1HJ32	T	Solid	D-2216	
280-15153-1DU	Duplicate	T	Solid	D-2216	
280-15153-2	J1HJ33	T	Solid	D-2216	
280-15153-3	J1HJ34	T	Solid	D-2216	
280-15153-4	J1HJ35	T	Solid	D-2216	
280-15153-5	J1HJ36	T	Solid	D-2216	
280-15153-6	J1HJ37	T	Solid	D-2216	
280-15153-7	J1HJ38	T	Solid	D-2216	
280-15153-8	J1HJ39	T	Solid	D-2216	
280-15153-9	J1HJ40	T	Solid	D-2216	
280-15153-10	J1HJ41	T	Solid	D-2216	
280-15153-11	J1HJ42	T	Solid	D-2216	
280-15153-12	J1HJ43	T	Solid	D-2216	
280-15153-13	J1HJ44	T	Solid	D-2216	
280-15153-14EB	J1HJ45	T	Solid	D-2216	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Method Blank - Batch: 280-64645

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-64645/1-A	Analysis Batch:	280-65251	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	05/02/2011 2132	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				
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	0.00076	U	0.00076	0.0050
Beryllium	0.00033	U	0.00033	0.0020
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	0.000710	B	0.00058	0.0020
Cobalt	0.0010	U	0.0010	0.010
Copper	0.0022	U	0.0022	0.010
Iron	0.038	U	0.038	0.050
Lead	0.0027	U	0.0027	0.0050
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
Sodium	0.59	U	0.59	1.2
Vanadium	0.00094	U	0.00094	0.020
Zinc	0.0040	U	0.0040	0.010

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Lab Control Sample - Batch: 280-64645

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-64645/2-A	Analysis Batch:	280-65251	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	05/02/2011 2134	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2.00	1.85	92	82 - 116	
Antimony	0.500	0.465	93	82 - 110	
Arsenic	1.00	0.928	93	85 - 110	
Barium	2.00	2.08	104	87 - 112	
Beryllium	0.0500	0.0476	95	84 - 114	
Boron	1.00	0.929	93	81 - 110	
Cadmium	0.100	0.101	101	87 - 110	
Calcium	50.0	49.01	98	82 - 114	
Chromium	0.200	0.200	100	84 - 114	
Cobalt	0.500	0.486	97	87 - 110	
Copper	0.250	0.273	109	88 - 110	
Iron	1.00	0.956	96	87 - 120	
Lead	0.500	0.499	100	86 - 110	
Magnesium	50.0	49.88	100	90 - 110	
Manganese	0.500	0.520	104	88 - 110	
Molybdenum	1.00	0.984	98	86 - 110	
Nickel	0.500	0.489	98	87 - 110	
Potassium	50.0	52.07	104	89 - 110	
Selenium	2.00	1.96	98	83 - 110	
Silicon	10.0	1.53	15	10 - 70	
Silver	0.0500	0.0527	105	87 - 114	
Sodium	50.0	51.25	102	90 - 112	
Vanadium	0.500	0.522	104	88 - 110	
Zinc	0.500	0.503	101	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Matrix Spike - Batch: 280-64645

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-15153-1	Analysis Batch:	280-65251	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.18 g
Analysis Date:	05/02/2011 2140	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7080		192	12390	2760	50 - 200	4
Antimony	0.42	U	48.1	21.44	45	20 - 200	
Arsenic	2.9		96.2	87.21	88	76 - 111	
Barium	78.7		192	274.1	102	52 - 159	
Beryllium	0.042	B	4.81	4.42	91	72 - 105	
Boron	1.1	U	96.2	83.46	87	75 - 107	
Cadmium	0.50		9.62	9.78	97	40 - 130	
Calcium	3060		4810	8674	117	43 - 165	
Chromium	44.8		19.2	67.75	119	70 - 200	
Cobalt	6.6		48.1	49.63	89	72 - 106	
Copper	16.7		24.0	44.46	115	37 - 187	
Iron	16600		96.2	15590	-1037	70 - 200	4
Lead	17.7		48.1	66.81	102	70 - 200	
Magnesium	3330		4810	8458	107	64 - 145	
Manganese	321		48.1	408.0	180	40 - 200	4
Molybdenum	0.30	B	96.2	85.52	89	75 - 103	
Nickel	9.9		48.1	53.75	91	61 - 126	
Potassium	807		4810	5969	107	56 - 172	
Selenium	0.96	U	192	176.4	92	76 - 104	
Silicon	164		962	320.1	16	20 - 200	N
Silver	0.18	B	4.81	5.08	102	75 - 141	
Sodium	192		4810	5019	100	78 - 111	
Vanadium	41.9		48.1	83.69	87	50 - 169	
Zinc	105		48.1	166.1	126	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Duplicate - Batch: 280-64645

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-15153-1	Analysis Batch:	280-65251	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64645	Lab File ID:	25A4050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.13 g
Analysis Date:	05/02/2011 2143	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7080		10350	37	40	
Antimony	0.42	U	0.38	NC	40	U
Arsenic	2.9		4.31	40	30	M
Barium	78.7		80.23	2	30	
Beryllium	0.042	B	0.105	86	30	B M
Boron	1.1	U	0.98	NC	30	U
Cadmium	0.50		0.578	15	30	
Calcium	3060		3394	10	30	
Chromium	44.8		51.54	14	40	
Cobalt	6.6		6.06	9	30	
Copper	16.7		17.33	4	30	
Iron	16600		13570	20	40	
Lead	17.7		23.19	27	40	
Magnesium	3330		3456	4	30	
Manganese	321		323.3	0.6	40	
Molybdenum	0.30	B	0.332	10	30	B
Nickel	9.9		10.10	2	30	
Potassium	807		881.6	9	40	
Selenium	0.96	U	0.86	NC	30	U
Silicon	164		165.6	1	40	
Silver	0.18	B	0.225	20	30	
Sodium	192		209.9	9	30	
Vanadium	41.9		32.87	24	30	
Zinc	105		130.6	21	40	

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Method Blank - Batch: 280-64679

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-64679/1-A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	05/02/2011 1424	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-64679

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-64679/2-A	Analysis Batch:	280-65262	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	05/02/2011 1427	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.397	95	87 - 111	

Matrix Spike - Batch: 280-64679

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-15153-4	Analysis Batch:	280-65262	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	05/02/2011 1442	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0082	B	0.449	0.440	96	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Duplicate - Batch: 280-64679

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-15153-4	Analysis Batch:	280-65262	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-64679	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	05/02/2011 1440	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/02/2011 1158				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0082	B	0.00835	2	20	B

Client: Washington Closure Hanford

Job Number: 280-15153-1
Sdg Number: JP0170

Duplicate - Batch: 280-64741

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-15153-1	Analysis Batch:	280-64741	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/29/2011 0806	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	11.9	12.6	6	20	

4.6, 3.8, 4.8°C

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-005	Page 1 of 3

Collector: RICE, DD	Company Contact: JL Russell	Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH
Price Code: ~~8L~~ JR 4/26/11 8J	Data Turnaround: ~~21 Days~~ 7 Days JR 4/26/11		
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VERIFICATION		SAF No.: RC-181
Ice Chest No.: WCH-11-014	Field Logbook No.: EL-1651 – 01 JR 4/26/11	COA: R00F452000	Method of Shipment: FedEx ~~7970345159 78.~~ 4/27/11 CMB
Shipped To: JR 4/26/11 TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 797034515978

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation			Cool 4C	Cool 4C	None							
Type of Container			G/P	G/P	G/P							
No. of Container(s)			1	1	1							
Volume			60mL	60mL	1000mL							
SAMPLE ANALYSIS			See item (1) in Special Instructions.	Chromium Hex - 7196 JR 4/26/11	See item (2) in Special Instructions.							
Sample No.	Matrix *	Sample Date	Sample Time									EXC
J1HJ32	SOIL	4-26-11	1035	X								1
J1HJ33	SOIL	4-26-11	1005	X								2
J1HJ34	SOIL	4-26-11	1020	X								3
J1HJ35	SOIL	4-26-11	0930	X								4
J1HJ36	SOIL	4-26-11	0945	X								5

Page 49 of 55

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From: David D. Rice	Date/Time: 4-26-11 1045	Received By/Stored In: Jen Russell Jen Russell	Date/Time: 4/26/11 1045
Relinquished By/Removed From: WCH Jen Russell Jen Russell JR 4/26/11	Date/Time: 4-26-11 1045 1535	Received By/Stored In: A. Freier A. Freier	Date/Time: 4-26-11 1535
Relinquished By/Removed From: WCH A. Freier A. Freier	Date/Time: 4-27-11 1000	Received By/Stored In: FED EX	Date/Time:
Relinquished By/Removed From	Date/Time	Received By/Stored In:	Date/Time: 4/28/11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(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 JFB DATE 4-27-11

JR 4/26/11 JP0170

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

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

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-005	Page 2 of 3

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH	Price Code ~~8L~~ JR 4/26/11 8J	Data Turnaround JR 4/26/11 ~~21 Days~~ 7Days
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VERIFICATION		SAF No. RC-181		
Ice Chest No. WCH-11-014	Field Logbook No. EL-1651 - 01 JR 4/26/11	COA R00F452000	Method of Shipment FedEx		
Shipped To JR 4/26/11 TestAmerica Incorporated, ~~Richland~~ Denver	Offsite Property No. NA		Bill of Lading/Air Bill No. 7970345159 78		

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation			Cool 4C	Cool 4C	None							
Type of Container			G/P	G/P	G/P							
No. of Container(s)			1	1	1							
Volume			60mL	60mL	1000mL							
SAMPLE ANALYSIS			See item (1) in Special Instructions.	Chromium Hex - 7196 JR 4/26/11	See item (2) in Special Instructions.							
Sample No.	Matrix *	Sample Date	Sample Time									EXC
J1HJ37	SOIL	4-26-11	0900	X								6
J1HJ38	SOIL	4-26-11	0825	X								7
J1HJ39	SOIL	4-26-11	0845	X								8
J1HJ40	SOIL	4-26-11	0820	X								9
J1HJ41	SOIL	4-26-11	0805	X								10

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	4-26-11 1045	JenRussell JLRussell	4-26-11 1045
JenRussell JLRussell (WCH)	4-26-11 1535	A. Freier A.Freier	4-26-11 1535
A. Freier A.Freier (WCH)	4-27-11 1000	FED EX	
		~~Received By/Stored In~~	4/28/11 9:30

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 JEB DATE 4-27-11

JR 4/26/11 JP017D

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

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

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-005	Page 3 of 3

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~8L~~ 8J JR 4/26/11	Data Turnaround ~~21 Days~~ 7 Days JR 4/26/11		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VERIFICATION		SAF No. RC-181
Ice Chest No. WCH-11-014	Field Logbook No. EL-1651 — 01 JR 4/26/11	COA R00F452000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, ~~Richland~~ Denver JR 4/26/11	Offsite Property No. NA		Bill of Lading/Air Bill No. 797034515978

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation				Cool 4C	Cool 4C	None						
Type of Container				G/P	G/P	G/P						
No. of Container(s)				1	1	1						
Volume				60mL	60mL	1000mL						
SAMPLE ANALYSIS				See item (1) in Special Instructions.	Chromium Hex - 7196 JR 4/26/11	See item (2) in Special Instructions.						
Sample No.	Matrix *	Sample Date	Sample Time									
J1HJ42	SOIL	4-26-11	0810	X								EXC-11
J1HJ43	SOIL	4-26-11	0800	X								EXC-12
J1HJ44	SOIL	4-26-11	0825	X								DUP
J1HJ45	SOIL	4-26-11	1040	X								EB

Page 5 of 5

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice David D. Rice	4-26-11 1045	JenRussell JenRussell	4-26-11 1045
~~WCH JenRussell JenRussell~~	~~4-26-11 1535~~	~~TALP Amen Kaur Amen Kaur~~	~~4-26-11 1535~~
Relinquished By/Removed From WCH JenRussell JenRussell	4-26-11 1535	Received By/Stored In A. Freier A. Freier	Date/Time 1535 4-26-11
Relinquished By/Removed From WCH A. Freier A. Freier	Date/Time 1000 4-27-11	Received By/Stored In FED EX	Date/Time
Relinquished By/Removed From	Date/Time	~~Received By/Stored In~~	Date/Time 4/28/11 930
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

CK 4-26-11

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 JEB DATE 4-27-11

JR 4/26/11 JP0170

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

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

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 6010B 6010C

Analytical Due:

Report Due: 5/3/11 (Rush 5day TAT)

Sample Check-in List

Date/Time Received: 4/28/11 0930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP0170 NA[ ] SAF #: RC-181 NA [ ]

Job Number: 15153 Chain of Custody # RC-181-005

Shipping Container ID: WCH-08-023 WCH-11-014 WCH-11-032 Air Bill # 7970 3451 6150 7970 3451 5978 7970 3451 6220

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: 4.6, 3.8, 4.8 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [✓] Dry [ ]
6. Number of samples in shipping container: 14
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ___ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] Date: 4/28/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 4/29/11

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

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 27APR11
ActWgt: 95.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

1 of 3

THU - 28 APR A1
PRIORITY OVERNIGHT

TRK# 7970 3451 5978
0201

MASTER

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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.

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

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 27APR11
ActWgt: 71.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

2 of 3

THU - 28 APR A1
PRIORITY OVERNIGHT

MPS# 7970 3451 6150
0263
Mstr# 7970 3451 5978 0201

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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.

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

RICHLAND, WA 99354

J111511022250225

Ship Date: 27APR11
ActWgt: 57.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

3 of 3

THU - 28 APR A1
PRIORITY OVERNIGHT

MPS# 7970 3451 6220
0263
Mstr# 7970 3451 5978 0201

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EF8

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.