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

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 1/29/15
INITIAL/DATE

COMMENTS:

SDG JP0895 SAF RC-075

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 100-D-85:2, Verification, Excavation

Analytical Data Package Prepared For

Washington Closure Hanford

Radiochemical Analysis By

TestAmerica Inc

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

Assigned Laboratory Code: TARL

Data Package Contains 108 *Pages*

Report No.: 64403

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.
JP0895	RC-075	J1V321	J5A210422-1	M51RW1AH	9M51RW10	5021040
		J1V321	J5A210422-1	M51RW1AJ	9M51RW10	5021041
		J1V321	J5A210422-1	M51RW1AK	9M51RW10	5021042
		J1V321	J5A210422-1	M51RW1AC	9M51RW10	5021043
		J1V321	J5A210422-1	M51RW1AE	9M51RW10	5021044
		J1V321	J5A210422-1	M51RW1AD	9M51RW10	5021045
		J1V321	J5A210422-1	M51RW1AA	9M51RW10	5022022
		J1V322	J5A210422-2	M51RX1AH	9M51RX10	5021040
		J1V322	J5A210422-2	M51RX1AJ	9M51RX10	5021041
		J1V322	J5A210422-2	M51RX1AK	9M51RX10	5021042
		J1V322	J5A210422-2	M51RX1AC	9M51RX10	5021043
		J1V322	J5A210422-2	M51RX1AE	9M51RX10	5021044
		J1V322	J5A210422-2	M51RX1AD	9M51RX10	5021045
		J1V322	J5A210422-2	M51RX1AA	9M51RX10	5022022
		J1V323	J5A210422-3	M51R01AH	9M51R010	5021040
		J1V323	J5A210422-3	M51R01AJ	9M51R010	5021041
		J1V323	J5A210422-3	M51R01AK	9M51R010	5021042
		J1V323	J5A210422-3	M51R01AC	9M51R010	5021043
		J1V323	J5A210422-3	M51R01AE	9M51R010	5021044
		J1V323	J5A210422-3	M51R01AD	9M51R010	5021045
		J1V323	J5A210422-3	M51R01AA	9M51R010	5022022
		J1V324	J5A210422-4	M51R21AH	9M51R210	5021040
		J1V324	J5A210422-4	M51R21AJ	9M51R210	5021041
		J1V324	J5A210422-4	M51R21AK	9M51R210	5021042
		J1V324	J5A210422-4	M51R21AC	9M51R210	5021043
		J1V324	J5A210422-4	M51R21AE	9M51R210	5021044

Report No.: 64403

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.
JP0895	RC-075	J1V324	J5A210422-4	M51R21AD	9M51R210	5021045
		J1V324	J5A210422-4	M51R21AA	9M51R210	5022022
		J1V325	J5A210422-5	M51R31AH	9M51R310	5021040
		J1V325	J5A210422-5	M51R31AJ	9M51R310	5021041
		J1V325	J5A210422-5	M51R31AK	9M51R310	5021042
		J1V325	J5A210422-5	M51R31AC	9M51R310	5021043
		J1V325	J5A210422-5	M51R31AE	9M51R310	5021044
		J1V325	J5A210422-5	M51R31AD	9M51R310	5021045
		J1V325	J5A210422-5	M51R31AA	9M51R310	5022022
		J1V326	J5A210422-6	M51R51AH	9M51R510	5021040
		J1V326	J5A210422-6	M51R51AJ	9M51R510	5021041
		J1V326	J5A210422-6	M51R51AK	9M51R510	5021042
		J1V326	J5A210422-6	M51R51AC	9M51R510	5021043
		J1V326	J5A210422-6	M51R51AE	9M51R510	5021044
		J1V326	J5A210422-6	M51R51AD	9M51R510	5021045
		J1V326	J5A210422-6	M51R51AA	9M51R510	5022022
		J1V327	J5A210422-7	M51R71AH	9M51R710	5021040
		J1V327	J5A210422-7	M51R71AJ	9M51R710	5021041
		J1V327	J5A210422-7	M51R71AK	9M51R710	5021042
		J1V327	J5A210422-7	M51R71AC	9M51R710	5021043
		J1V327	J5A210422-7	M51R71AE	9M51R710	5021044
		J1V327	J5A210422-7	M51R71AD	9M51R710	5021045
		J1V327	J5A210422-7	M51R71AA	9M51R710	5022022
		J1V328	J5A210422-8	M51R91AH	9M51R910	5021040
		J1V328	J5A210422-8	M51R91AJ	9M51R910	5021041
		J1V328	J5A210422-8	M51R91AK	9M51R910	5021042
		J1V328	J5A210422-8	M51R91AC	9M51R910	5021043
		J1V328	J5A210422-8	M51R91AE	9M51R910	5021044
		J1V328	J5A210422-8	M51R91AD	9M51R910	5021045
		J1V328	J5A210422-8	M51R91AA	9M51R910	5022022
		J1V329	J5A210422-9	M51TA1AH	9M51TA10	5021040
		J1V329	J5A210422-9	M51TA1AJ	9M51TA10	5021041
		J1V329	J5A210422-9	M51TA1AK	9M51TA10	5021042
		J1V329	J5A210422-9	M51TA1AC	9M51TA10	5021043
		J1V329	J5A210422-9	M51TA1AE	9M51TA10	5021044
		J1V329	J5A210422-9	M51TA1AD	9M51TA10	5021045
		J1V329	J5A210422-9	M51TA1AA	9M51TA10	5022022
		J1V330	J5A210422-10	M51TC1AH	9M51TC10	5021040

Report No.: 64403

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.
JP0895		J1V330	J5A210422-10	M51TC1AJ	9M51TC10	5021041
		J1V330	J5A210422-10	M51TC2AK	9M51TC20	5021042
		J1V330	J5A210422-10	M51TC1AC	9M51TC10	5021043
		J1V330	J5A210422-10	M51TC1AE	9M51TC10	5021044
		J1V330	J5A210422-10	M51TC1AD	9M51TC10	5021045
		J1V330	J5A210422-10	M51TC1AA	9M51TC10	5022022
	RC-075	J1V331	J5A210422-11	M51TD1AH	9M51TD10	5021040
		J1V331	J5A210422-11	M51TD1AJ	9M51TD10	5021041
		J1V331	J5A210422-11	M51TD1AK	9M51TD10	5021042
		J1V331	J5A210422-11	M51TD1AC	9M51TD10	5021043
		J1V331	J5A210422-11	M51TD1AE	9M51TD10	5021044
		J1V331	J5A210422-11	M51TD1AD	9M51TD10	5021045
		J1V331	J5A210422-11	M51TD1AA	9M51TD10	5022022
		J1V332	J5A210422-12	M51TE1AH	9M51TE10	5021040
		J1V332	J5A210422-12	M51TE1AJ	9M51TE10	5021041
		J1V332	J5A210422-12	M51TE1AK	9M51TE10	5021042
		J1V332	J5A210422-12	M51TE1AC	9M51TE10	5021043
		J1V332	J5A210422-12	M51TE1AE	9M51TE10	5021044
		J1V332	J5A210422-12	M51TE1AD	9M51TE10	5021045
		J1V332	J5A210422-12	M51TE1AA	9M51TE10	5022022
		J1V333	J5A210422-13	M51TF1AH	9M51TF10	5021040
		J1V333	J5A210422-13	M51TF1AJ	9M51TF10	5021041
		J1V333	J5A210422-13	M51TF1AK	9M51TF10	5021042
		J1V333	J5A210422-13	M51TF1AC	9M51TF10	5021043
		J1V333	J5A210422-13	M51TF1AE	9M51TF10	5021044
		J1V333	J5A210422-13	M51TF1AD	9M51TF10	5021045
		J1V333	J5A210422-13	M51TF1AA	9M51TF10	5022022

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

January 27, 2015

Attention: Joan Kessner

SAF Number	:	RC-075
Date SDG Closed	:	January 21, 2015
Number of Samples	:	Thirteen (13)
Sample Type	:	Soil
SDG Number	:	JP0895
Data Deliverable	:	7– Day / Summary

CASE NARRATIVE

I. Introduction

On January 21, 2015, 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
J1V321	M51RW	SOIL	1/21/15
J1V322	M51RX	SOIL	1/21/15
J1V323	M51R0	SOIL	1/21/15
J1V324	M51R2	SOIL	1/21/15
J1V325	M51R3	SOIL	1/21/15
J1V326	M51R5	SOIL	1/21/15
J1V327	M51R7	SOIL	1/21/15
J1V328	M51R9	SOIL	1/21/15
J1V329	M51TA	SOIL	1/21/15
J1V330	M51TC	SOIL	1/21/15
J1V331	M51TD	SOIL	1/21/15
J1V332	M51TE	SOIL	1/21/15
J1V333	M51TF	SOIL	1/21/15

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001
Uranium 234, 235 and 238 by method RL-ALP-015
Americium-241by method RL-ALP-001
Gas Proportional Counting
Strontium-90 by method RL-GPC-010
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Liquid Scintillation Counting
Nickel-63 by method RL-LCS-017
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001:
The LCS, batch blank, samples and sample duplicate (J1V321) results are within contractual requirements.

Uranium 234, 235 and 238 by method RL-ALP-015:
The LCS, batch blank, samples and sample duplicate (J1V322) results are within contractual requirements.

Americium -241 by method RL-ALP-001:
The LCS, batch blank, samples and sample duplicate (J1V321) results are within contractual requirements.

Gas Proportional Counting
Strontium-90 by method RL-GPC-010:
The LCS, batch blank, samples and sample duplicate (J1V325) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:

The CRDL was not met for some of the analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1V326) results are within contractual requirements.

Liquid Scintillation Counting
Nickel-63 by method RL-LCS-017:
The LCS, batch blank, samples and sample duplicate (J1V324) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
The LCS, batch blank, samples, sample duplicate (J1V321) and sample matrix spike (J1V321) results are within contractual requirements.

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

Reviewed and approved:

Rhonda Wagar
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/? n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c – Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined uncertainty.* The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

TestAmerica Inc TARL

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

Date: 27-Jan-15

Report No. : 64403

SDG No: JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021041 PUISO_PLATE_AEA									
J1V321									
	M51RW1AJ	Pu-238	2.11E-02 +- 4.3E-02	U	pCi/g	100%	9.52E-02	1.00E+00	
		PU239/40	-1.21E-03 +- 3.0E-02	U	pCi/g	100%	6.07E-02	1.00E+00	
J1V321 DUP									
	M51RW1AL	Pu-238	-2.34E-03 +- 3.0E-02	U	pCi/g	100%	1.13E-01	1.00E+00	249.9
		PU239/40	-1.76E-03 +- 2.9E-02	U	pCi/g	100%	6.32E-02	1.00E+00	-37.1
J1V322									
	M51RX1AJ	Pu-238	-1.21E-02 +- 3.8E-02	U	pCi/g	82%	1.22E-01	1.00E+00	
		PU239/40	1.59E-02 +- 3.8E-02	U	pCi/g	82%	8.65E-02	1.00E+00	
J1V323									
	M51R01AJ	Pu-238	5.30E-03 +- 3.0E-02	U	pCi/g	100%	9.47E-02	1.00E+00	
		PU239/40	-5.89E-04 +- 2.9E-02	U	pCi/g	100%	5.36E-02	1.00E+00	
J1V324									
	M51R21AJ	Pu-238	3.79E-03 +- 3.2E-02	U	pCi/g	97%	1.07E-01	1.00E+00	
		PU239/40	0.00E+00 +- 3.2E-02	U	pCi/g	97%	4.28E-02	1.00E+00	
J1V325									
	M51R31AJ	Pu-238	3.49E-02 +- 5.7E-02	U	pCi/g	95%	1.12E-01	1.00E+00	
		PU239/40	-1.94E-03 +- 3.2E-02	U	pCi/g	95%	6.97E-02	1.00E+00	
J1V326									
	M51R51AJ	Pu-238	-4.69E-03 +- 3.0E-02	U	pCi/g	98%	7.83E-02	1.00E+00	
		PU239/40	-1.76E-03 +- 2.9E-02	U	pCi/g	98%	6.34E-02	1.00E+00	
J1V327									
	M51R71AJ	Pu-238	5.61E-04 +- 2.9E-02	U	pCi/g	100%	1.02E-01	1.00E+00	
		PU239/40	3.87E-02 +- 4.9E-02	U	pCi/g	100%	7.00E-02	1.00E+00	
J1V328									
	M51R91AJ	Pu-238	-1.23E-02 +- 2.9E-02	U	pCi/g	100%	9.90E-02	1.00E+00	
		PU239/40	1.34E-02 +- 2.8E-02	U	pCi/g	100%	5.09E-02	1.00E+00	
J1V329									
	M51TA1AJ	Pu-238	1.76E-03 +- 3.0E-02	U	pCi/g	93%	1.04E-01	1.00E+00	
		PU239/40	1.35E-02 +- 2.9E-02	U	pCi/g	93%	5.89E-02	1.00E+00	
J1V330									
	M51TC1AJ	Pu-238	-5.75E-03 +- 2.9E-02	U	pCi/g	100%	8.12E-02	1.00E+00	
		PU239/40	-1.73E-03 +- 2.9E-02	U	pCi/g	100%	6.21E-02	1.00E+00	
J1V331									
	M51TD1AJ	Pu-238	2.73E-02 +- 4.2E-02	U	pCi/g	100%	6.79E-02	1.00E+00	
		PU239/40	1.49E-02 +- 3.0E-02	U	pCi/g	100%	4.02E-02	1.00E+00	
J1V332									
	M51TE1AJ	Pu-238	1.33E-02 +- 2.9E-02	U	pCi/g	100%	5.84E-02	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

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

Report No. : 64403 **SDG No:** JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021041 PUISO_PLATE_AEA									
J1V332									
	M51TE1AJ	PU239/40	1.39E-02 +- 2.9E-02	U	pCi/g	100%	5.28E-02	1.00E+00	
J1V333									
	M51TF1AJ	Pu-238	-5.43E-04 +- 2.7E-02	U	pCi/g	100%	4.94E-02	1.00E+00	
		PU239/40	1.09E-02 +- 2.7E-02	U	pCi/g	100%	6.50E-02	1.00E+00	
5021042 AMCMISO_EIE_PLT_AEA									
J1V321									
	M51RW1AK	AMERICIUM 241	1.99E-02 +- 4.3E-02	U	pCi/g	102%	9.87E-02	1.00E+00	
J1V321 DUP									
	M51RW1AM	AMERICIUM 241	-1.11E-02 +- 3.0E-02	U	pCi/g	110%	9.90E-02	1.00E+00	706.3
J1V322									
	M51RX1AK	AMERICIUM 241	6.26E-03 +- 3.2E-02	U	pCi/g	99%	9.87E-02	1.00E+00	
J1V323									
	M51R01AK	AMERICIUM 241	5.08E-03 +- 3.2E-02	U	pCi/g	93%	1.04E-01	1.00E+00	
J1V324									
	M51R21AK	AMERICIUM 241	1.84E-02 +- 4.4E-02	U	pCi/g	106%	1.05E-01	1.00E+00	
J1V325									
	M51R31AK	AMERICIUM 241	5.58E-03 +- 3.1E-02	U	pCi/g	99%	9.96E-02	1.00E+00	
J1V326									
	M51R51AK	AMERICIUM 241	9.18E-03 +- 3.1E-02	U	pCi/g	94%	8.64E-02	1.00E+00	
J1V327									
	M51R71AK	AMERICIUM 241	3.96E-03 +- 2.9E-02	U	pCi/g	99%	9.40E-02	1.00E+00	
J1V328									
	M51R91AK	AMERICIUM 241	-1.10E-02 +- 2.9E-02	U	pCi/g	97%	9.77E-02	1.00E+00	
J1V329									
	M51TA1AK	AMERICIUM 241	2.71E-03 +- 2.8E-02	U	pCi/g	108%	9.30E-02	1.00E+00	
J1V330									
	M51TC2AK	AMERICIUM 241	2.68E-02 +- 3.9E-02	U	pCi/g	104%	4.98E-02	1.00E+00	
J1V331									
	M51TD1AK	AMERICIUM 241	2.67E-02 +- 4.2E-02	U	pCi/g	106%	7.11E-02	1.00E+00	
J1V332									
	M51TE1AK	AMERICIUM 241	1.37E-02 +- 2.9E-02	U	pCi/g	103%	5.19E-02	1.00E+00	
J1V333									
	M51TF1AK	AMERICIUM 241	-4.22E-03 +- 2.7E-02	U	pCi/g	109%	7.04E-02	1.00E+00	
5021043 UISO_IE_PLATE_AEA									
J1V321									
	M51RW1AC	U-234	2.24E-01 +- 1.5E-01		pCi/g	63%	8.19E-02	1.00E+00	
		U-235	0.00E+00 +- 4.5E-02	U	pCi/g	63%	6.09E-02	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

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

Report No. : 64403 **SDG No:** JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021043 UISO_IE_PLATE_AEA									
J1V321									
	M51RW1AC	U-238	2.92E-01 +- 1.7E-01		pCi/g	63%	6.09E-02	1.00E+00	
J1V322									
	M51RX1AC	U-234	1.32E-01 +- 8.7E-02		pCi/g	99%	3.57E-02	1.00E+00	
		U-235	1.27E-02 +- 2.6E-02	U	pCi/g	99%	4.80E-02	1.00E+00	
		U-238	1.17E-01 +- 8.2E-02		pCi/g	99%	5.70E-02	1.00E+00	
J1V322 DUP									
	M51RX1AL	U-234	7.77E-02 +- 9.1E-02		pCi/g	52%	7.02E-02	1.00E+00	51.6
		U-235	-1.04E-03 +- 5.2E-02	U	pCi/g	52%	9.43E-02	1.00E+00	235.7
		U-238	1.30E-01 +- 1.2E-01		pCi/g	52%	7.02E-02	1.00E+00	10.1
J1V323									
	M51R01AC	U-234	1.19E-01 +- 9.3E-02		pCi/g	79%	6.21E-02	1.00E+00	
		U-235	1.71E-02 +- 3.4E-02	U	pCi/g	79%	4.62E-02	1.00E+00	
		U-238	8.53E-02 +- 7.8E-02		pCi/g	79%	4.62E-02	1.00E+00	
J1V324									
	M51R21AC	U-234	1.47E-01 +- 1.2E-01		pCi/g	63%	9.82E-02	1.00E+00	
		U-235	4.21E-02 +- 6.1E-02	U	pCi/g	63%	7.82E-02	1.00E+00	
		U-238	1.29E-01 +- 1.1E-01		pCi/g	63%	5.83E-02	1.00E+00	
J1V325									
	M51R31AC	U-234	1.54E-01 +- 1.1E-01		pCi/g	79%	6.24E-02	1.00E+00	
		U-235	0.00E+00 +- 3.4E-02	U	pCi/g	79%	4.65E-02	1.00E+00	
		U-238	1.20E-01 +- 9.3E-02		pCi/g	79%	4.65E-02	1.00E+00	
J1V326									
	M51R51AC	U-234	1.26E-01 +- 9.2E-02		pCi/g	82%	5.77E-02	1.00E+00	
		U-235	-6.34E-04 +- 3.2E-02	U	pCi/g	82%	5.77E-02	1.00E+00	
		U-238	1.43E-01 +- 9.8E-02		pCi/g	82%	4.29E-02	1.00E+00	
J1V327									
	M51R71AC	U-234	1.64E+00 +- 4.8E-01		pCi/g	64%	5.49E-02	1.00E+00	
		U-235	6.07E-02 +- 7.1E-02		pCi/g	64%	5.49E-02	1.00E+00	
		U-238	1.28E+00 +- 4.0E-01		pCi/g	64%	5.49E-02	1.00E+00	
J1V328									
	M51R91AC	U-234	2.24E-01 +- 1.3E-01		pCi/g	82%	6.49E-02	1.00E+00	
		U-235	3.03E-02 +- 4.6E-02	U	pCi/g	82%	6.97E-02	1.00E+00	
		U-238	2.10E-01 +- 1.2E-01		pCi/g	82%	4.37E-02	1.00E+00	
J1V329									
	M51TA1AC	U-234	2.11E-01 +- 1.5E-01		pCi/g	53%	1.03E-01	1.00E+00	
		U-235	0.00E+00 +- 4.8E-02	U	pCi/g	53%	6.45E-02	1.00E+00	
		U-238	1.67E-01 +- 1.3E-01		pCi/g	53%	6.45E-02	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 27-Jan-15

Report No. : 64403

SDG No: JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021043 UISO_IE_PLATE_AEA									
J1V330									
	M51TC1AC	U-234	2.12E-01 +- 1.5E-01		pCi/g	57%	1.15E-01	1.00E+00	
		U-235	-9.63E-04 +- 4.8E-02	U	pCi/g	57%	8.76E-02	1.00E+00	
		U-238	2.39E-01 +- 1.6E-01		pCi/g	57%	9.69E-02	1.00E+00	
J1V331									
	M51TD1AC	U-234	7.31E-02 +- 6.7E-02		pCi/g	91%	5.36E-02	1.00E+00	
		U-235	-2.36E-03 +- 3.0E-02	U	pCi/g	91%	6.73E-02	1.00E+00	
		U-238	1.61E-01 +- 1.0E-01		pCi/g	91%	5.36E-02	1.00E+00	
J1V332									
	M51TE1AC	U-234	3.01E-01 +- 1.5E-01		pCi/g	80%	6.40E-02	1.00E+00	
		U-235	1.53E-02 +- 3.2E-02	U	pCi/g	80%	5.79E-02	1.00E+00	
		U-238	3.80E-01 +- 1.7E-01		pCi/g	80%	6.40E-02	1.00E+00	
J1V333									
	M51TF1AC	U-234	1.42E-01 +- 1.1E-01		pCi/g	64%	5.49E-02	1.00E+00	
		U-235	-8.10E-04 +- 4.1E-02	U	pCi/g	64%	7.37E-02	1.00E+00	
		U-238	1.61E-01 +- 1.2E-01		pCi/g	64%	7.37E-02	1.00E+00	
5021040 GAMMA_GS									
J1V321									
	M51RW1AH	AMERICIUM 241	-4.29E-02 +- 5.7E-02	U	pCi/g		9.38E-02	1.00E+00	
		CO-60	-9.13E-04 +- 1.8E-02	U	pCi/g		3.22E-02	5.00E-02	
		CS-137	-1.07E-02 +- 1.8E-02	U	pCi/g		2.89E-02	1.00E-01	
		EU-152	-1.99E-02 +- 4.4E-02	U	pCi/g		6.96E-02	1.00E-01	
		EU-154	-3.61E-02 +- 6.2E-02	U	pCi/g		1.04E-01	1.00E-01	
		EU-155	6.13E-02 +- 4.3E-02	U	pCi/g		7.76E-02	1.00E-01	
		K-40	9.95E+00 +- 1.4E+00		pCi/g		2.08E-01		
J1V322									
	M51RX1AH	AMERICIUM 241	-2.74E-02 +- 7.0E-02	U	pCi/g		1.16E-01	1.00E+00	
		CO-60	-6.43E-03 +- 1.4E-02	U	pCi/g		2.40E-02	5.00E-02	
		CS-137	1.47E-02 +- 1.5E-02	U	pCi/g		2.71E-02	1.00E-01	
		EU-152	-3.71E-01 +- 8.2E-02	U	pCi/g		6.77E-02	1.00E-01	
		EU-154	-4.30E-02 +- 4.3E-02	U	pCi/g		6.87E-02	1.00E-01	
		EU-155	9.25E-03 +- 5.2E-02	U	pCi/g		8.74E-02	1.00E-01	
		K-40	9.91E+00 +- 1.3E+00		pCi/g		1.83E-01		
J1V323									
	M51R01AH	AMERICIUM 241	-2.75E-02 +- 8.8E-02	U	pCi/g		1.43E-01	1.00E+00	
		CO-60	1.95E-03 +- 1.4E-02	U	pCi/g		2.49E-02	5.00E-02	
		CS-137	-4.97E-03 +- 1.3E-02	U	pCi/g		2.20E-02	1.00E-01	
		EU-152	-1.35E-02 +- 3.1E-02	U	pCi/g		5.15E-02	1.00E-01	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

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

Report No. : 64403 **SDG No:** JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021040 GAMMA_GS									
J1V323									
	M51R01AH	EU-154	-3.88E-03 +- 4.0E-02	U	pCi/g		7.13E-02	1.00E-01	
		EU-155	6.00E-02 +- 3.6E-02	U	pCi/g		6.39E-02	1.00E-01	
		K-40	9.13E+00 +- 1.2E+00		pCi/g		2.04E-01		
J1V324									
	M51R21AH	AMERICIUM 241	6.40E-03 +- 2.1E-02	U	pCi/g		3.53E-02	1.00E+00	
		CO-60	3.56E-03 +- 1.4E-02	U	pCi/g		2.53E-02	5.00E-02	
		CS-137	-5.44E-04 +- 1.3E-02	U	pCi/g		2.30E-02	1.00E-01	
		EU-152	-1.23E-02 +- 3.6E-02	U	pCi/g		6.09E-02	1.00E-01	
		EU-154	1.20E-02 +- 4.3E-02	U	pCi/g		7.80E-02	1.00E-01	
		EU-155	1.77E-02 +- 3.2E-02	U	pCi/g		5.48E-02	1.00E-01	
		K-40	8.49E+00 +- 1.1E+00		pCi/g		2.16E-01		
J1V325									
	M51R31AH	AMERICIUM 241	-2.01E-04 +- 1.8E-02	U	pCi/g		2.91E-02	1.00E+00	
		CO-60	8.73E-03 +- 1.4E-02	U	pCi/g		2.57E-02	5.00E-02	
		CS-137	-1.39E-02 +- 1.2E-02	U	pCi/g		1.95E-02	1.00E-01	
		EU-152	1.47E-02 +- 3.0E-02	U	pCi/g		5.19E-02	1.00E-01	
		EU-154	-2.88E-02 +- 4.5E-02	U	pCi/g		7.56E-02	1.00E-01	
		EU-155	4.49E-02 +- 2.6E-02	U	pCi/g		4.49E-02	1.00E-01	
		K-40	1.34E+01 +- 1.6E+00		pCi/g		2.35E-01		
J1V326									
	M51R51AH	AMERICIUM 241	-5.75E-03 +- 1.6E-02	U	pCi/g		2.68E-02	1.00E+00	
		CO-60	2.48E-03 +- 1.1E-02	U	pCi/g		2.02E-02	5.00E-02	
		CS-137	3.67E-03 +- 1.1E-02	U	pCi/g		1.96E-02	1.00E-01	
		EU-152	-4.11E-03 +- 2.6E-02	U	pCi/g		4.27E-02	1.00E-01	
		EU-154	-1.72E-02 +- 4.1E-02	U	pCi/g		6.83E-02	1.00E-01	
		EU-155	5.64E-02 +- 3.5E-02		pCi/g		3.98E-02	1.00E-01	
		K-40	1.28E+01 +- 1.5E+00		pCi/g		1.81E-01		
J1V326 DUP									
	M51R51AL	AMERICIUM 241	1.88E-03 +- 1.5E-02	U	pCi/g		2.46E-02	1.00E+00	-394.5
		CO-60	-4.39E-03 +- 1.2E-02	U	pCi/g		2.07E-02	5.00E-02	-717.4
		CS-137	8.64E-03 +- 1.1E-02	U	pCi/g		1.97E-02	1.00E-01	80.8
		EU-152	-3.55E-03 +- 2.3E-02	U	pCi/g		3.94E-02	1.00E-01	-14.8
		EU-154	4.71E-02 +- 3.8E-02	U	pCi/g		7.26E-02	1.00E-01	431.1
		EU-155	4.42E-02 +- 2.3E-02	U	pCi/g		4.08E-02	1.00E-01	24.2
		K-40	1.23E+01 +- 1.5E+00		pCi/g		1.71E-01		3.8
J1V327									
	M51R71AH	AMERICIUM 241	-8.83E-04 +- 1.8E-02	U	pCi/g		2.91E-02	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

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

Report No. : 64403 **SDG No:** JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021040 GAMMA_GS									
J1V327									
	M51R71AH	CO-60	-1.92E-03 +- 1.5E-02	U	pCi/g		2.52E-02	5.00E-02	
		CS-137	2.77E-01 +- 4.5E-02		pCi/g		2.27E-02	1.00E-01	
		EU-152	2.22E-01 +- 5.3E-02		pCi/g		4.90E-02	1.00E-01	
		EU-154	1.96E-02 +- 4.5E-02	U	pCi/g		8.14E-02	1.00E-01	
		EU-155	5.88E-02 +- 2.8E-02	U	pCi/g		4.84E-02	1.00E-01	
		K-40	1.23E+01 +- 1.5E+00		pCi/g		1.78E-01		
J1V328									
	M51R91AH	AMERICIUM 241	4.34E-02 +- 6.1E-02	U	pCi/g		1.05E-01	1.00E+00	
		CO-60	-1.84E-02 +- 2.1E-02	U	pCi/g		3.41E-02	5.00E-02	
		CS-137	2.19E-03 +- 2.0E-02	U	pCi/g		3.42E-02	1.00E-01	
		EU-152	1.56E-02 +- 5.4E-02	U	pCi/g		7.95E-02	1.00E-01	
		EU-154	-6.33E-03 +- 6.2E-02	U	pCi/g		1.09E-01	1.00E-01	
		EU-155	6.35E-02 +- 4.8E-02	U	pCi/g		8.46E-02	1.00E-01	
		K-40	1.17E+01 +- 1.6E+00		pCi/g		2.60E-01		
J1V329									
	M51TA1AH	AMERICIUM 241	-1.22E-02 +- 7.2E-02	U	pCi/g		1.20E-01	1.00E+00	
		CO-60	-1.95E-02 +- 1.5E-02	U	pCi/g		2.23E-02	5.00E-02	
		CS-137	3.84E-02 +- 1.8E-02	U	pCi/g		3.23E-02	1.00E-01	
		EU-152	-1.66E-01 +- 7.0E-02	U	pCi/g		8.22E-02	1.00E-01	
		EU-154	-3.67E-02 +- 4.7E-02	U	pCi/g		7.70E-02	1.00E-01	
		EU-155	-1.10E-02 +- 5.2E-02	U	pCi/g		8.63E-02	1.00E-01	
		K-40	9.65E+00 +- 1.2E+00		pCi/g		1.69E-01		
J1V330									
	M51TC1AH	AMERICIUM 241	-2.94E-02 +- 9.8E-02	U	pCi/g		1.58E-01	1.00E+00	
		CO-60	-8.74E-03 +- 1.5E-02	U	pCi/g		2.52E-02	5.00E-02	
		CS-137	2.02E-03 +- 1.5E-02	U	pCi/g		2.52E-02	1.00E-01	
		EU-152	-6.61E-03 +- 3.5E-02	U	pCi/g		5.95E-02	1.00E-01	
		EU-154	7.09E-03 +- 4.8E-02	U	pCi/g		8.63E-02	1.00E-01	
		EU-155	2.86E-02 +- 4.0E-02	U	pCi/g		6.92E-02	1.00E-01	
		K-40	1.23E+01 +- 1.6E+00		pCi/g		2.39E-01		
J1V331									
	M51TD1AH	AMERICIUM 241	-1.10E-02 +- 2.1E-02	U	pCi/g		3.39E-02	1.00E+00	
		CO-60	-6.22E-04 +- 1.3E-02	U	pCi/g		2.35E-02	5.00E-02	
		CS-137	1.08E-02 +- 1.4E-02	U	pCi/g		2.57E-02	1.00E-01	
		EU-152	9.33E-03 +- 3.8E-02	U	pCi/g		5.75E-02	1.00E-01	
		EU-154	-2.77E-02 +- 4.6E-02	U	pCi/g		7.61E-02	1.00E-01	
		EU-155	1.83E-02 +- 3.0E-02	U	pCi/g		5.26E-02	1.00E-01	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 27-Jan-15

Report No. : 64403

SDG No: JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021040 GAMMA_GS									
J1V331									
	M51TD1AH	K-40	8.67E+00 +- 1.1E+00		pCi/g		1.86E-01		
J1V332									
	M51TE1AH	AMERICIUM 241	-1.10E-03 +- 1.5E-02	U	pCi/g		2.56E-02	1.00E+00	
		CO-60	1.02E-02 +- 1.4E-02	U	pCi/g		2.66E-02	5.00E-02	
		CS-137	6.51E-03 +- 1.3E-02	U	pCi/g		2.30E-02	1.00E-01	
		EU-152	9.53E-03 +- 2.7E-02	U	pCi/g		4.70E-02	1.00E-01	
		EU-154	4.12E-03 +- 4.9E-02	U	pCi/g		8.69E-02	1.00E-01	
		EU-155	2.61E-02 +- 2.2E-02	U	pCi/g		3.92E-02	1.00E-01	
		K-40	1.05E+01 +- 1.3E+00		pCi/g		2.35E-01		
J1V333									
	M51TF1AH	AMERICIUM 241	5.59E-03 +- 2.0E-02	U	pCi/g		3.04E-02	1.00E+00	
		CO-60	-1.54E-03 +- 1.4E-02	U	pCi/g		2.46E-02	5.00E-02	
		CS-137	1.04E-02 +- 1.4E-02	U	pCi/g		2.15E-02	1.00E-01	
		EU-152	4.88E-02 +- 4.3E-02	U	pCi/g		4.91E-02	1.00E-01	
		EU-154	-1.88E-02 +- 4.2E-02	U	pCi/g		7.11E-02	1.00E-01	
		EU-155	4.27E-02 +- 2.6E-02	U	pCi/g		4.65E-02	1.00E-01	
		K-40	1.27E+01 +- 1.5E+00		pCi/g		1.85E-01		
5021045 SRTOT_SEP_PRECIP_GPC									
J1V321									
	M51RW1AD	STRONTIUM	1.75E-01 +- 2.0E-01	U	pCi/g	92%	4.23E-01	1.00E+00	
J1V322									
	M51RX1AD	STRONTIUM	-1.08E-02 +- 1.7E-01	U	pCi/g	93%	3.97E-01	1.00E+00	
J1V323									
	M51R01AD	STRONTIUM	2.38E-01 +- 2.8E-01	U	pCi/g	65%	5.74E-01	1.00E+00	
J1V324									
	M51R21AD	STRONTIUM	1.88E-01 +- 1.9E-01	U	pCi/g	87%	3.87E-01	1.00E+00	
J1V325									
	M51R31AD	STRONTIUM	5.15E-02 +- 1.6E-01	U	pCi/g	94%	3.73E-01	1.00E+00	
J1V325 DUP									
	M51R31AL	STRONTIUM	2.61E-01 +- 2.0E-01	U	pCi/g	95%	3.83E-01	1.00E+00	134.1
J1V326									
	M51R51AD	STRONTIUM	1.42E-01 +- 1.9E-01	U	pCi/g	98%	3.93E-01	1.00E+00	
J1V327									
	M51R71AD	STRONTIUM	4.17E-01 +- 2.4E-01		pCi/g	99%	4.11E-01	1.00E+00	
J1V328									
	M51R91AD	STRONTIUM	-3.89E-03 +- 1.6E-01	U	pCi/g	97%	3.90E-01	1.00E+00	
J1V329									

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 27-Jan-15

Report No. : 64403

SDG No: JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021045 SRTOT_SEP_PRECIP_GPC									
J1V329									
	M51TA1AD	STRONTIUM	-1.25E-03 +- 1.5E-01	U	pCi/g	100%	3.53E-01	1.00E+00	
J1V330									
	M51TC1AD	STRONTIUM	1.58E-01 +- 1.9E-01	U	pCi/g	93%	3.90E-01	1.00E+00	
J1V331									
	M51TD1AD	STRONTIUM	1.61E-01 +- 2.1E-01	U	pCi/g	92%	4.41E-01	1.00E+00	
J1V332									
	M51TE1AD	STRONTIUM	7.51E-02 +- 1.9E-01	U	pCi/g	92%	4.16E-01	1.00E+00	
J1V333									
	M51TF1AD	STRONTIUM	1.59E-01 +- 2.3E-01	U	pCi/g	73%	4.89E-01	1.00E+00	
5021044 NI63_LSC									
J1V321									
	M51RW1AE	Ni-63	1.81E+00 +- 3.0E+00	U	pCi/g	96%	6.84E+00	3.00E+01	
J1V322									
	M51RX1AE	Ni-63	4.10E+00 +- 3.4E+00	U	pCi/g	93%	7.55E+00	3.00E+01	
J1V323									
	M51R01AE	Ni-63	2.48E+00 +- 3.0E+00	U	pCi/g	97%	6.79E+00	3.00E+01	
J1V324									
	M51R21AE	Ni-63	9.58E-01 +- 3.1E+00	U	pCi/g	97%	7.08E+00	3.00E+01	
J1V324 DUP									
	M51R21AL	Ni-63	1.53E+00 +- 2.9E+00	U	pCi/g	97%	6.65E+00	3.00E+01	45.7
J1V325									
	M51R31AE	Ni-63	1.28E+00 +- 3.1E+00	U	pCi/g	95%	7.19E+00	3.00E+01	
J1V326									
	M51R51AE	Ni-63	4.18E+00 +- 3.3E+00	U	pCi/g	98%	7.25E+00	3.00E+01	
J1V327									
	M51R71AE	Ni-63	6.38E-01 +- 3.2E+00	U	pCi/g	91%	7.44E+00	3.00E+01	
J1V328									
	M51R91AE	Ni-63	3.21E+00 +- 2.9E+00	U	pCi/g	96%	6.31E+00	3.00E+01	
J1V329									
	M51TA1AE	Ni-63	9.97E-01 +- 3.0E+00	U	pCi/g	100%	7.03E+00	3.00E+01	
J1V330									
	M51TC1AE	Ni-63	7.98E-01 +- 2.7E+00	U	pCi/g	100%	6.35E+00	3.00E+01	
J1V331									
	M51TD1AE	Ni-63	4.22E+00 +- 3.1E+00	U	pCi/g	100%	6.60E+00	3.00E+01	
J1V332									
	M51TE1AE	Ni-63	7.87E-01 +- 3.0E+00	U	pCi/g	98%	6.87E+00	3.00E+01	
J1V333									
	M51TF1AE	Ni-63	3.22E+00 +- 3.2E+00	U	pCi/g	99%	7.05E+00	3.00E+01	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 27-Jan-15

Report No. : 64403

SDG No: JP0895

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5021044	NI63_LSC								
5022022	7196_CR6								
	J1V321								
	M51RW1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	M51RW1AP	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	0.0
	J1V322								
	M51RX1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V323								
	M51R01AA	HEXCHROME	1.94E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V324								
	M51R21AA	HEXCHROME	1.67E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V325								
	M51R31AA	HEXCHROME	1.95E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V326								
	M51R51AA	HEXCHROME	1.95E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V327								
	M51R71AA	HEXCHROME	2.63E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V328								
	M51R91AA	HEXCHROME	2.17E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V329								
	M51TA1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V330								
	M51TC1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V331								
	M51TD1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V332								
	M51TE1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V333								
	M51TF1AA	HEXCHROME	2.79E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	

No. of Results: 224

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 64403 **SDG No.:** JP0895

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
PUISO_PLATE_AEA								
5021041 BLANK QC,								
M51TK1AA	Pu-238	-4.93E-03 +- 3.5E-02	U	pCi/g	74%			9.11E-02
	PU239/40	-7.04E-04 +- 3.5E-02	U	pCi/g	74%			6.41E-02
5021041 LCS,								
M51TK1AC	PU239/40	4.27E+00 +- 9.8E-01		pCi/g	76%	92%	-0.1	7.51E-02
AMCMISO_EIE_PLT_AEA								
5021042 BLANK QC,								
M51TL1AA	AMERICIUM 241	1.54E-02 +- 3.5E-02	U	pCi/g	78%			7.56E-02
5021042 LCS,								
M51TL1AC	AMERICIUM 241	4.68E+00 +- 1.1E+00		pCi/g	76%	98%	0.0	8.09E-02
UISO_IE_PLATE_AEA								
5021043 BLANK QC,								
M51TM1AA	U-234	-8.74E-04 +- 4.4E-02	U	pCi/g	58%			7.95E-02
	U-235	-8.74E-04 +- 4.4E-02	U	pCi/g	58%			7.95E-02
	U-238	0.00E+00 +- 4.4E-02	U	pCi/g	58%			5.92E-02
5021043 LCS,								
M51TM1AC	U-234	2.54E+00 +- 6.9E-01		pCi/g	57%	79%	-0.2	9.71E-02
	U-238	2.94E+00 +- 7.7E-01		pCi/g	57%	87%	-0.1	8.18E-02
GAMMA_GS								
5021040 BLANK QC,								
M51TJ1AA	AMERICIUM 241	3.44E-03 +- 7.8E-03	U	pCi/g				1.40E-02
	CO-60	-4.30E-03 +- 7.7E-03	U	pCi/g				1.34E-02
	CS-137	1.18E-03 +- 7.5E-03	U	pCi/g				1.39E-02
	EU-152	-1.49E-03 +- 1.7E-02	U	pCi/g				2.96E-02
	EU-154	7.51E-03 +- 2.5E-02	U	pCi/g				4.74E-02
	EU-155	8.96E-03 +- 1.2E-02	U	pCi/g				2.26E-02
	K-40	-2.84E-01 +- 2.1E-01	U	pCi/g				4.35E-01
5021040 LCS,								
M51TJ1AC	CS-137	1.02E+00 +- 1.4E-01		pCi/g		103%	0.0	2.42E-02
	RA-226	9.39E-01 +- 1.4E-01		pCi/g		83%	-0.2	3.91E-02
	RA-228	4.99E-01 +- 1.3E-01		pCi/g		84%	-0.2	7.64E-02
	U-238	9.69E-01 +- 1.3E-01		pCi/g		81%	-0.2	4.21E-02
SRTOT_SEP_PRECIP_GPC								
5021045 BLANK QC,								
M51TP1AA	STRONTIUM	1.55E-01 +- 2.3E-01	U	pCi/g	73%			5.01E-01
5021045 LCS,								
M51TP1AC	STRONTIUM	3.32E+00 +- 8.7E-01		pCi/g	83%	95%	-0.1	4.04E-01
NI63_LSC								
5021044 BLANK QC,								
M51TN1AA	Ni-63	-2.45E+00 +- 3.1E+00	U	pCi/g	79%			7.91E+00
5021044 LCS,								

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

rptSTLRchQcSummary V5.3.6.5 A2002 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary

Date: 27-Jan-15

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 64403 **SDG No.:** JP0895

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
M51TN1AC	Ni-63	2.73E+02 +- 1.9E+01		pCi/g	72%	84%	-0.2	9.48E+00
7196_CR6								
5022022 MATRIX SPIKE, J1V321								
M51RW1AN	HEXCHROME	2.94E+01 +- 0.0E+00		mg/kg	N/A	93%	-0.1	1.55E-01
5022022 LCS,								
M51W91AC	HEXCHROME	1.91E+01 +- 0.0E+00		mg/kg	N/A	96%	0.0	1.55E-01
5022022 BLANK QC,								
M51W91AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 28

TestAmerica Inc
rptSTLRchQcSummary V5.3.6.5
A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:20:00 AM
Lot-Sample No.:	**J5A210422-1**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V321**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51RW1AH			**Report DB ID:** 9M51RW10					
AMERICIUM 241	**-4.29E-02**	U	5.7E-02	5.7E-02	9.38E-02	pCi/g		*-0.46*	1/22/15 07:10 a		391.6	GER7$1
							1.00E+00	*-(1.5)*			g	
CO-60	**-9.13E-04**	U	1.8E-02	1.8E-02	3.22E-02	pCi/g		*-0.03*	1/22/15 07:10 a		391.6	GER7$1
							5.00E-02	*-0.1*			g	
CS-137	**-1.07E-02**	U	1.8E-02	1.8E-02	2.89E-02	pCi/g		*-0.37*	1/22/15 07:10 a		391.6	GER7$1
							1.00E-01	*-(1.2)*			g	
EU-152	**-1.99E-02**	U	4.4E-02	4.4E-02	6.96E-02	pCi/g		*-0.29*	1/22/15 07:10 a		391.6	GER7$1
							1.00E-01	*-0.91*			g	
EU-154	**-3.61E-02**	U	6.2E-02	6.2E-02	1.04E-01	pCi/g		*-0.35*	1/22/15 07:10 a		391.6	GER7$1
							1.00E-01	*-(1.2)*			g	
EU-155	**6.13E-02**	U	4.3E-02	4.3E-02	7.76E-02	pCi/g		*0.79*	1/22/15 07:10 a		391.6	GER7$1
							1.00E-01	*(2.8)*			g	
K-40	**9.95E+00**		1.4E+00	1.4E+00	2.08E-01	pCi/g		*(47.8)*	1/22/15 07:10 a		391.6	GER7$1
								(14.4)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51RW1AJ			**Report DB ID:** 9M51RW10					
Pu-238	**2.11E-02**	U	4.3E-02	4.3E-02	9.52E-02	pCi/g	100%	*0.22*	1/26/15 09:41 a		1.03	ALP401
						2.47E-02	1.00E+00	*0.98*			g	
PU239/40	**-1.21E-03**	U	3.0E-02	3.0E-02	6.07E-02	pCi/g	100%	*-0.02*	1/26/15 09:41 a		1.03	ALP401
						1.27E-02	1.00E+00	*-0.08*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51RW1AK			**Report DB ID:** 9M51RW10					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-1
Client Sample ID: J1V321

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:20:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	1.99E-02	U	4.3E-02	4.3E-02	9.87E-02	pCi/g	102%	*0.2*	1/26/15 11:40 a		1.03	ALP401
						2.59E-02	1.00E+00	*0.92*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51RW1AC		**Report DB ID:**	9M51RW10				
U-234	2.24E-01		1.4E-01	1.5E-01	8.19E-02	pCi/g	63%	*(2.7)*	1/26/15 06:03 p		1.0	ALP401
						1.61E-02	1.00E+00	*(3.)*			g	
U-235	0.00E+00	U	0.0E+00	4.5E-02	6.09E-02	pCi/g	63%	*0.*	1/26/15 06:03 p		1.0	ALP401
						1.20E-02	1.00E+00	*0.*			g	
U-238	2.92E-01		1.6E-01	1.7E-01	6.09E-02	pCi/g	63%	*(4.8)*	1/26/15 06:03 p		1.0	ALP401
						1.20E-02	1.00E+00	*(3.4)*			g	
							Ratio U-234/238 = 0.8					
Batch: 5021044	NI63_LSC			**Work Order:**	M51RW1AE		**Report DB ID:**	9M51RW10				
Ni-63	1.81E+00	U	2.8E+00	3.0E+00	6.84E+00	pCi/g	96%	*0.26*	1/26/15 08:35 p		0.5	LSC4
						3.19E+00	3.00E+01	*(1.2)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51RW1AD		**Report DB ID:**	9M51RW10				
STRONTIUM	1.75E-01	U	2.0E-01	2.0E-01	4.23E-01	pCi/g	92%	*0.41*	1/26/15 07:04 p		2.02	GPC31A
						1.97E-01	1.00E+00	*(1.7)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51RW1AA		**Report DB ID:**	9M51RW10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.5023	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:28:00 AM
Lot-Sample No.:	J5A210422-2	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V322	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51RX1AH			**Report DB ID:** 9M51RX10					
AMERICIUM 241	**-2.74E-02**	U	7.0E-02	7.0E-02	1.16E-01	pCi/g		*-0.24*	1/22/15 07:09 a		410.5	GER10$1
							1.00E+00	*-0.79*			g	
CO-60	**-6.43E-03**	U	1.4E-02	1.4E-02	2.40E-02	pCi/g		*-0.27*	1/22/15 07:09 a		410.5	GER10$1
							5.00E-02	*-0.9*			g	
CS-137	**1.47E-02**	U	1.5E-02	1.5E-02	2.71E-02	pCi/g		*0.54*	1/22/15 07:09 a		410.5	GER10$1
							1.00E-01	*(1.9)*			g	
EU-152	**-3.71E-01**	U	8.2E-02	8.2E-02	6.77E-02	pCi/g		*-(5.5)*	1/22/15 07:09 a		410.5	GER10$1
							1.00E-01	*-(9.)*			g	
EU-154	**-4.30E-02**	U	4.3E-02	4.3E-02	6.87E-02	pCi/g		*-0.63*	1/22/15 07:09 a		410.5	GER10$1
							1.00E-01	*-(2.)*			g	
EU-155	**9.25E-03**	U	5.2E-02	5.2E-02	8.74E-02	pCi/g		*0.11*	1/22/15 07:09 a		410.5	GER10$1
							1.00E-01	*0.36*			g	
K-40	**9.91E+00**		1.3E+00	1.3E+00	1.83E-01	pCi/g		*(54.3)*	1/22/15 07:09 a		410.5	GER10$1
								(15.7)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51RX1AJ			**Report DB ID:** 9M51RX10					
Pu-238	**-1.21E-02**	U	3.8E-02	3.8E-02	1.22E-01	pCi/g	82%	*-0.1*	1/26/15 09:42 a		0.97	ALP404
						3.18E-02	1.00E+00	*-0.63*			g	
PU239/40	**1.59E-02**	U	3.8E-02	3.8E-02	8.65E-02	pCi/g	82%	*0.18*	1/26/15 09:42 a		0.97	ALP404
						1.94E-02	1.00E+00	*0.83*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51RX1AK			**Report DB ID:** 9M51RX10					

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-2
Client Sample ID: J1V322

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:28:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	6.26E-03	U	3.2E-02	3.2E-02	9.87E-02	pCi/g	99%	*0.06*	1/26/15 11:40 a		0.97	ALP404
						2.56E-02	1.00E+00	*0.4*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51RX1AC		**Report DB ID:**	9M51RX10				
U-234	1.32E-01		8.3E-02	8.7E-02	3.57E-02	pCi/g	99%	*(3.7)*	1/26/15 06:04 p		1.02	ALP403
						7.01E-03	1.00E+00	*(3.)*			g	
U-235	1.27E-02	U	2.6E-02	2.6E-02	4.80E-02	pCi/g	99%	*0.26*	1/26/15 06:04 p		1.02	ALP403
						9.45E-03	1.00E+00	*0.96*			g	
U-238	1.17E-01		7.9E-02	8.2E-02	5.70E-02	pCi/g	99%	*(2.1)*	1/26/15 06:04 p		1.02	ALP403
						1.24E-02	1.00E+00	*(2.9)*			g	
							Ratio U-234/238 = 1.1					
Batch: 5021044	NI63_LSC			**Work Order:**	M51RX1AE		**Report DB ID:**	9M51RX10				
Ni-63	4.10E+00	U	3.2E+00	3.4E+00	7.55E+00	pCi/g	93%	*0.54*	1/26/15 08:58 p		0.48	LSC4
						3.52E+00	3.00E+01	*(2.4)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51RX1AD		**Report DB ID:**	9M51RX10				
STRONTIUM	-1.08E-02	U	1.7E-01	1.7E-01	3.97E-01	pCi/g	93%	*-0.03*	1/26/15 07:04 p		2.0	GPC31B
						1.84E-01	1.00E+00	*-0.13*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51RX1AA		**Report DB ID:**	9M51RX10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.5087	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-3
Client Sample ID: J1V323

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:58:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R01AH			**Report DB ID:** 9M51R010					
AMERICIUM 241	-2.75E-02	U	8.8E-02	8.8E-02	1.43E-01	pCi/g		-0.19	1/22/15 07:10 a		397.9	GER11$1
							1.00E+00	-0.62			g	
CO-60	1.95E-03	U	1.4E-02	1.4E-02	2.49E-02	pCi/g		0.08	1/22/15 07:10 a		397.9	GER11$1
							5.00E-02	0.28			g	
CS-137	-4.97E-03	U	1.3E-02	1.3E-02	2.20E-02	pCi/g		-0.23	1/22/15 07:10 a		397.9	GER11$1
							1.00E-01	-0.76			g	
EU-152	-1.35E-02	U	3.1E-02	3.1E-02	5.15E-02	pCi/g		-0.26	1/22/15 07:10 a		397.9	GER11$1
							1.00E-01	-0.87			g	
EU-154	-3.88E-03	U	4.0E-02	4.0E-02	7.13E-02	pCi/g		-0.05	1/22/15 07:10 a		397.9	GER11$1
							1.00E-01	-0.19			g	
EU-155	6.00E-02	U	3.6E-02	3.6E-02	6.39E-02	pCi/g		0.94	1/22/15 07:10 a		397.9	GER11$1
							1.00E-01	(3.3)			g	
K-40	9.13E+00		1.2E+00	1.2E+00	2.04E-01	pCi/g		(44.7)	1/22/15 07:10 a		397.9	GER11$1
								(15.)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51R01AJ			**Report DB ID:** 9M51R010					
Pu-238	5.30E-03	U	3.0E-02	3.0E-02	9.47E-02	pCi/g	100%	0.06	1/26/15 09:42 a		1.0	ALP405
						2.47E-02	1.00E+00	0.36			g	
PU239/40	-5.89E-04	U	2.9E-02	2.9E-02	5.36E-02	pCi/g	100%	-0.01	1/26/15 09:42 a		1.0	ALP405
						1.06E-02	1.00E+00	-0.04			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51R01AK			**Report DB ID:** 9M51R010					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-3
Client Sample ID: J1V323

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:58:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	5.08E-03	U	3.2E-02	3.2E-02	1.04E-01	pCi/g	93%	*0.05*	1/26/15 11:40 a		1.0	ALP405
						2.73E-02	1.00E+00	*0.32*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R01AC		**Report DB ID:**	9M51R010				
U-234	1.19E-01		9.0E-02	9.3E-02	6.21E-02	pCi/g	79%	*(1.9)*	1/26/15 06:05 p		1.0	ALP405
						1.22E-02	1.00E+00	*(2.6)*			g	
U-235	1.71E-02	U	3.4E-02	3.4E-02	4.62E-02	pCi/g	79%	*0.37*	1/26/15 06:05 p		1.0	ALP405
						9.07E-03	1.00E+00	*1.*			g	
U-238	8.53E-02		7.6E-02	7.8E-02	4.62E-02	pCi/g	79%	*(1.8)*	1/26/15 06:05 p		1.0	ALP405
						9.07E-03	1.00E+00	*(2.2)*			g	
							Ratio U-234/238 = 1.4					
Batch: 5021044	NI63_LSC			**Work Order:**	M51R01AE		**Report DB ID:**	9M51R010				
Ni-63	2.48E+00	U	2.8E+00	3.0E+00	6.79E+00	pCi/g	97%	*0.36*	1/26/15 09:21 p		0.51	LSC4
						3.17E+00	3.00E+01	*(1.6)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R01AD		**Report DB ID:**	9M51R010				
STRONTIUM	2.38E-01	U	2.7E-01	2.8E-01	5.74E-01	pCi/g	65%	*0.42*	1/26/15 07:04 p		1.99	GPC31C
						2.66E-01	1.00E+00	*(1.7)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R01AA		**Report DB ID:**	9M51R010				
HEXCHROME	1.94E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.3)*	1/23/15 02:00 p		2.5003	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-4
Client Sample ID: J1V324

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 9:08:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:**	M51R21AH		**Report DB ID:**	9M51R210				
AMERICIUM 241	6.40E-03	U	2.1E-02	2.1E-02	3.53E-02	pCi/g		*0.18*	1/22/15 07:10 a		371.4	GER15$1
							1.00E+00	*0.61*			g	
CO-60	3.56E-03	U	1.4E-02	1.4E-02	2.53E-02	pCi/g		*0.14*	1/22/15 07:10 a		371.4	GER15$1
							5.00E-02	*0.52*			g	
CS-137	-5.44E-04	U	1.3E-02	1.3E-02	2.30E-02	pCi/g		*-0.02*	1/22/15 07:10 a		371.4	GER15$1
							1.00E-01	*-0.08*			g	
EU-152	-1.23E-02	U	3.6E-02	3.6E-02	6.09E-02	pCi/g		*-0.2*	1/22/15 07:10 a		371.4	GER15$1
							1.00E-01	*-0.69*			g	
EU-154	1.20E-02	U	4.3E-02	4.3E-02	7.80E-02	pCi/g		*0.15*	1/22/15 07:10 a		371.4	GER15$1
							1.00E-01	*0.55*			g	
EU-155	1.77E-02	U	3.2E-02	3.2E-02	5.48E-02	pCi/g		*0.32*	1/22/15 07:10 a		371.4	GER15$1
							1.00E-01	*(1.1)*			g	
K-40	8.49E+00		1.1E+00	1.1E+00	2.16E-01	pCi/g		*(39.3)*	1/22/15 07:10 a		371.4	GER15$1
								(15.4)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:**	M51R21AJ		**Report DB ID:**	9M51R210				
Pu-238	3.79E-03	U	3.2E-02	3.2E-02	1.07E-01	pCi/g	97%	*0.04*	1/26/15 09:42 a		0.98	ALP406
						2.84E-02	1.00E+00	*0.24*			g	
PU239/40	0.00E+00	U	0.0E+00	3.2E-02	4.28E-02	pCi/g	97%	*0.*	1/26/15 09:42 a		0.98	ALP406
						8.40E-03	1.00E+00	*0.*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51R21AK		**Report DB ID:**	9M51R210				

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:08:00 AM
Lot-Sample No.:	J5A210422-4	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V324	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	1.84E-02	U	4.4E-02	4.4E-02	1.05E-01	pCi/g	106%	*0.17*	1/26/15 11:41 a		0.98	ALP406
						2.82E-02	1.00E+00	*0.84*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R21AC		**Report DB ID:**	9M51R210				
U-234	1.47E-01		1.1E-01	1.2E-01	9.82E-02	pCi/g	63%	*(1.5)*	1/26/15 06:05 p		1.01	ALP406
						2.20E-02	1.00E+00	*(2.5)*			g	
U-235	4.21E-02	U	6.1E-02	6.1E-02	7.82E-02	pCi/g	63%	*0.54*	1/26/15 06:05 p		1.01	ALP406
						1.54E-02	1.00E+00	*(1.4)*			g	
U-238	1.29E-01		1.1E-01	1.1E-01	5.83E-02	pCi/g	63%	*(2.2)*	1/26/15 06:05 p		1.01	ALP406
						1.14E-02	1.00E+00	*(2.4)*			g	
								Ratio U-234/238 = 1.1				
Batch: 5021044	NI63_LSC			**Work Order:**	M51R21AE		**Report DB ID:**	9M51R210				
Ni-63	9.58E-01	U	2.8E+00	3.1E+00	7.08E+00	pCi/g	97%	*0.14*	1/26/15 09:44 p		0.49	LSC4
						3.31E+00	3.00E+01	*0.63*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R21AD		**Report DB ID:**	9M51R210				
STRONTIUM	1.88E-01	U	1.9E-01	1.9E-01	3.87E-01	pCi/g	87%	*0.48*	1/26/15 07:04 p		2.03	GPC31D
						1.78E-01	1.00E+00	*(2.)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R21AA		**Report DB ID:**	9M51R210				
HEXCHROME	1.67E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.1)*	1/23/15 02:00 p		2.5089	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:34:00 AM
Lot-Sample No.:	**J5A210422-5**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V325**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R31AH			**Report DB ID:** 9M51R310					
AMERICIUM 241	**-2.01E-04**	U	1.8E-02	1.8E-02	2.91E-02	pCi/g		*-0.01*	1/22/15 07:11 a		398.8	GER16$1
							1.00E+00	*-0.02*			g	
CO-60	**8.73E-03**	U	1.4E-02	1.4E-02	2.57E-02	pCi/g		*0.34*	1/22/15 07:11 a		398.8	GER16$1
							5.00E-02	*(1.3)*			g	
CS-137	**-1.39E-02**	U	1.2E-02	1.2E-02	1.95E-02	pCi/g		*-0.71*	1/22/15 07:11 a		398.8	GER16$1
							1.00E-01	*-(2.2)*			g	
EU-152	**1.47E-02**	U	3.0E-02	3.0E-02	5.19E-02	pCi/g		*0.28*	1/22/15 07:11 a		398.8	GER16$1
							1.00E-01	*0.98*			g	
EU-154	**-2.88E-02**	U	4.5E-02	4.5E-02	7.56E-02	pCi/g		*-0.38*	1/22/15 07:11 a		398.8	GER16$1
							1.00E-01	*-(1.3)*			g	
EU-155	**4.49E-02**	U	2.6E-02	2.6E-02	4.49E-02	pCi/g		*(1.)*	1/22/15 07:11 a		398.8	GER16$1
							1.00E-01	*(3.5)*			g	
K-40	**1.34E+01**		1.6E+00	1.6E+00	2.35E-01	pCi/g		*(57.)*	1/22/15 07:11 a		398.8	GER16$1
								(16.8)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51R31AJ			**Report DB ID:** 9M51R310					
Pu-238	**3.49E-02**	U	5.6E-02	5.7E-02	1.12E-01	pCi/g	95%	*0.31*	1/26/15 09:43 a		0.99	ALP407
						3.02E-02	1.00E+00	*(1.2)*			g	
PU239/40	**-1.94E-03**	U	3.2E-02	3.2E-02	6.97E-02	pCi/g	95%	*-0.03*	1/26/15 09:43 a		0.99	ALP407
						1.51E-02	1.00E+00	*-0.12*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51R31AK			**Report DB ID:** 9M51R310					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:34:00 AM
Lot-Sample No.:	**J5A210422-5**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V325**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	**5.58E-03**	U	3.1E-02	3.1E-02	9.96E-02	pCi/g	99%	*0.06*	1/26/15 11:41 a		0.99	ALP407
						2.60E-02	1.00E+00	*0.36*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R31AC		**Report DB ID:**	9M51R310				
U-234	**1.54E-01**		1.0E-01	1.1E-01	6.24E-02	pCi/g	79%	*(2.5)*	1/26/15 06:06 p		1.02	ALP407
						1.23E-02	1.00E+00	*(2.9)*			g	
U-235	**0.00E+00**	U	0.0E+00	3.4E-02	4.65E-02	pCi/g	79%	*0.*	1/26/15 06:06 p		1.02	ALP407
						9.12E-03	1.00E+00	*0.*			g	
U-238	**1.20E-01**		9.1E-02	9.3E-02	4.65E-02	pCi/g	79%	*(2.6)*	1/26/15 06:06 p		1.02	ALP407
						9.12E-03	1.00E+00	*(2.6)*			g	
							Ratio U-234/238 = 1.3					
Batch: 5021044	NI63_LSC			**Work Order:**	M51R31AE		**Report DB ID:**	9M51R310				
Ni-63	**1.28E+00**	U	2.9E+00	3.1E+00	7.19E+00	pCi/g	95%	*0.18*	1/26/15 10:30 p		0.49	LSC4
						3.36E+00	3.00E+01	*0.82*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R31AD		**Report DB ID:**	9M51R310				
STRONTIUM	**5.15E-02**	U	1.6E-01	1.6E-01	3.73E-01	pCi/g	94%	*0.14*	1/26/15 07:04 p		2.02	GPC32B
						1.72E-01	1.00E+00	*0.63*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R31AA		**Report DB ID:**	9M51R310				
HEXCHROME	**1.95E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.3)*	1/23/15 02:00 p		2.5006	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:47:00 AM
Lot-Sample No.:	J5A210422-6	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V326	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R51AH			**Report DB ID:** 9M51R510					
AMERICIUM 241	-5.75E-03	U	1.6E-02	1.6E-02	2.68E-02	pCi/g		-0.21	1/22/15 07:11 a		418.0	GER17$1
							1.00E+00	-0.72			g	
CO-60	2.48E-03	U	1.1E-02	1.1E-02	2.02E-02	pCi/g		0.12	1/22/15 07:11 a		418.0	GER17$1
							5.00E-02	0.45			g	
CS-137	3.67E-03	U	1.1E-02	1.1E-02	1.96E-02	pCi/g		0.19	1/22/15 07:11 a		418.0	GER17$1
							1.00E-01	0.66			g	
EU-152	-4.11E-03	U	2.6E-02	2.6E-02	4.27E-02	pCi/g		-0.1	1/22/15 07:11 a		418.0	GER17$1
							1.00E-01	-0.32			g	
EU-154	-1.72E-02	U	4.1E-02	4.1E-02	6.83E-02	pCi/g		-0.25	1/22/15 07:11 a		418.0	GER17$1
							1.00E-01	-0.85			g	
EU-155	5.64E-02		3.5E-02	3.5E-02	3.98E-02	pCi/g		(1.4)	1/22/15 07:11 a		418.0	GER17$1
							1.00E-01	(3.3)			g	
K-40	1.28E+01		1.5E+00	1.5E+00	1.81E-01	pCi/g		(70.6)	1/22/15 07:11 a		418.0	GER17$1
								(16.8)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51R51AJ			**Report DB ID:** 9M51R510					
Pu-238	-4.69E-03	U	3.0E-02	3.0E-02	7.83E-02	pCi/g	98%	-0.06	1/26/15 09:43 a		0.99	ALP408
						1.90E-02	1.00E+00	-0.32			g	
PU239/40	-1.76E-03	U	2.9E-02	2.9E-02	6.34E-02	pCi/g	98%	-0.03	1/26/15 09:43 a		0.99	ALP408
						1.38E-02	1.00E+00	-0.12			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51R51AK			**Report DB ID:** 9M51R510					

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-6
Client Sample ID: J1V326

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:47:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	9.18E-03	U	3.1E-02	3.1E-02	8.64E-02	pCi/g	94%	*0.11*	1/26/15 11:41 a		0.99	ALP408
						2.14E-02	1.00E+00	*0.59*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R51AC		**Report DB ID:**	9M51R510				
U-234	1.26E-01		9.0E-02	9.2E-02	5.77E-02	pCi/g	82%	*(2.2)*	1/26/15 06:06 p		1.0	ALP408
						1.13E-02	1.00E+00	*(2.7)*			g	
U-235	-6.34E-04	U	3.2E-02	3.2E-02	5.77E-02	pCi/g	82%	*-0.01*	1/26/15 06:06 p		1.0	ALP408
						1.13E-02	1.00E+00	*-0.04*			g	
U-238	1.43E-01		9.5E-02	9.8E-02	4.29E-02	pCi/g	82%	*(3.3)*	1/26/15 06:06 p		1.0	ALP408
						8.42E-03	1.00E+00	*(2.9)*			g	
							Ratio U-234/238 = 0.9					
Batch: 5021044	NI63_LSC			**Work Order:**	M51R51AE		**Report DB ID:**	9M51R510				
Ni-63	4.18E+00	U	3.1E+00	3.3E+00	7.25E+00	pCi/g	98%	*0.58*	1/26/15 10:53 p		0.47	LSC4
						3.39E+00	3.00E+01	*(2.5)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R51AD		**Report DB ID:**	9M51R510				
STRONTIUM	1.42E-01	U	1.8E-01	1.9E-01	3.93E-01	pCi/g	98%	*0.36*	1/26/15 07:04 p		2.01	GPC32A
						1.83E-01	1.00E+00	*(1.5)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R51AA		**Report DB ID:**	9M51R510				
HEXCHROME	1.95E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.3)*	1/23/15 02:00 p		2.4985	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:53:00 AM
Lot-Sample No.:	**J5A210422-7**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V327**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R71AH			**Report DB ID:** 9M51R710					
AMERICIUM 241	**-8.83E-04**	U	1.8E-02	1.8E-02	2.91E-02	pCi/g		*-0.03*	1/22/15 07:12 a		399.7	GER19$1
							1.00E+00	*-0.1*			g	
CO-60	**-1.92E-03**	U	1.5E-02	1.5E-02	2.52E-02	pCi/g		*-0.08*	1/22/15 07:12 a		399.7	GER19$1
							5.00E-02	*-0.26*			g	
CS-137	**2.77E-01**		4.5E-02	4.5E-02	2.27E-02	pCi/g		*(12.2)*	1/22/15 07:12 a		399.7	GER19$1
							1.00E-01	*(12.3)*			g	
EU-152	**2.22E-01**		5.3E-02	5.3E-02	4.90E-02	pCi/g		*(4.5)*	1/22/15 07:12 a		399.7	GER19$1
							1.00E-01	*(8.4)*			g	
EU-154	**1.96E-02**	U	4.5E-02	4.5E-02	8.14E-02	pCi/g		*0.24*	1/22/15 07:12 a		399.7	GER19$1
							1.00E-01	*0.86*			g	
EU-155	**5.88E-02**	U	2.8E-02	2.8E-02	4.84E-02	pCi/g		*(1.2)*	1/22/15 07:12 a		399.7	GER19$1
							1.00E-01	*(4.2)*			g	
K-40	**1.23E+01**		1.5E+00	1.5E+00	1.78E-01	pCi/g		*(69.4)*	1/22/15 07:12 a		399.7	GER19$1
								(16.7)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51R71AJ			**Report DB ID:** 9M51R710					
Pu-238	**5.61E-04**	U	2.9E-02	2.9E-02	1.02E-01	pCi/g	100%	*0.01*	1/26/15 09:43 a		1.04	ALP409
						2.77E-02	1.00E+00	*0.04*			g	
PU239/40	**3.87E-02**	U	4.9E-02	4.9E-02	7.00E-02	pCi/g	100%	*0.55*	1/26/15 09:43 a		1.04	ALP409
						1.64E-02	1.00E+00	*(1.6)*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51R71AK			**Report DB ID:** 9M51R710					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-7
Client Sample ID: J1V327

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 8:53:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	3.96E-03	U	2.9E-02	2.9E-02	9.40E-02	pCi/g	99%	*0.04*	1/26/15 11:41 a		1.04	ALP409
						2.49E-02	1.00E+00	*0.28*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R71AC		**Report DB ID:**	9M51R710				
U-234	1.64E+00		3.6E-01	4.8E-01	5.49E-02	pCi/g	64%	*(29.9)*	1/26/15 06:06 p		1.03	ALP409
						1.08E-02	1.00E+00	*(6.8)*			g	
U-235	6.07E-02		7.0E-02	7.1E-02	5.49E-02	pCi/g	64%	*(1.1)*	1/26/15 06:06 p		1.03	ALP409
						1.08E-02	1.00E+00	*(1.7)*			g	
U-238	1.28E+00		3.2E-01	4.0E-01	5.49E-02	pCi/g	64%	*(23.2)*	1/26/15 06:06 p		1.03	ALP409
						1.08E-02	1.00E+00	*(6.3)*			g	
								Ratio U-234/238 = 1.3				
Batch: 5021044	NI63_LSC			**Work Order:**	M51R71AE		**Report DB ID:**	9M51R710				
Ni-63	6.38E-01	U	2.9E+00	3.2E+00	7.44E+00	pCi/g	91%	*0.09*	1/26/15 11:15 p		0.49	LSC4
						3.47E+00	3.00E+01	*0.4*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R71AD		**Report DB ID:**	9M51R710				
STRONTIUM	4.17E-01		2.2E-01	2.4E-01	4.11E-01	pCi/g	99%	*(1.)*	1/26/15 07:04 p		2.0	GPC32D
						1.92E-01	1.00E+00	*(3.5)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R71AA		**Report DB ID:**	9M51R710				
HEXCHROME	2.63E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.7)*	1/23/15 02:00 p		2.5122	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:11:00 AM
Lot-Sample No.:	**J5A210422-8**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V328**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R91AH			**Report DB ID:** 9M51R910					
AMERICIUM 241	**4.34E-02**	U	6.1E-02	6.1E-02	1.05E-01	pCi/g		*0.41*	1/22/15 10:35 a		390.6	GER7$1
							1.00E+00	*(1.4)*			g	
CO-60	**-1.84E-02**	U	2.1E-02	2.1E-02	3.41E-02	pCi/g		*-0.54*	1/22/15 10:35 a		390.6	GER7$1
							5.00E-02	*-(1.7)*			g	
CS-137	**2.19E-03**	U	2.0E-02	2.0E-02	3.42E-02	pCi/g		*0.06*	1/22/15 10:35 a		390.6	GER7$1
							1.00E-01	*0.22*			g	
EU-152	**1.56E-02**	U	5.4E-02	5.4E-02	7.95E-02	pCi/g		*0.2*	1/22/15 10:35 a		390.6	GER7$1
							1.00E-01	*0.57*			g	
EU-154	**-6.33E-03**	U	6.2E-02	6.2E-02	1.09E-01	pCi/g		*-0.06*	1/22/15 10:35 a		390.6	GER7$1
							1.00E-01	*-0.2*			g	
EU-155	**6.35E-02**	U	4.8E-02	4.8E-02	8.46E-02	pCi/g		*0.75*	1/22/15 10:35 a		390.6	GER7$1
							1.00E-01	*(2.7)*			g	
K-40	**1.17E+01**		1.6E+00	1.6E+00	2.60E-01	pCi/g		*(45.1)*	1/22/15 10:35 a		390.6	GER7$1
								(14.6)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51R91AJ			**Report DB ID:** 9M51R910					
Pu-238	**-1.23E-02**	U	2.8E-02	2.9E-02	9.90E-02	pCi/g	100%	*-0.12*	1/26/15 09:43 a		1.03	ALP410
						2.67E-02	1.00E+00	*-0.86*			g	
PU239/40	**1.34E-02**	U	2.8E-02	2.8E-02	5.09E-02	pCi/g	100%	*0.26*	1/26/15 09:43 a		1.03	ALP410
						1.00E-02	1.00E+00	*0.96*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51R91AK			**Report DB ID:** 9M51R910					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-8
Client Sample ID: J1V328

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 9:11:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	-1.10E-02	U	2.9E-02	2.9E-02	9.77E-02	pCi/g	97%	-0.11	1/26/15 11:41 a		1.03	ALP410
						2.60E-02	1.00E+00	-0.75			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51R91AC		**Report DB ID:**	9M51R910				
U-234	2.24E-01		1.2E-01	1.3E-01	6.49E-02	pCi/g	82%	(3.5)	1/26/15 06:07 p		0.99	ALP410
						1.35E-02	1.00E+00	(3.5)			g	
U-235	3.03E-02	U	4.6E-02	4.6E-02	6.97E-02	pCi/g	82%	0.44	1/26/15 06:07 p		0.99	ALP410
						1.51E-02	1.00E+00	(1.3)			g	
U-238	2.10E-01		1.2E-01	1.2E-01	4.37E-02	pCi/g	82%	(4.8)	1/26/15 06:07 p		0.99	ALP410
						8.57E-03	1.00E+00	(3.4)			g	
							Ratio U-234/238 = 1.1					
Batch: 5021044	NI63_LSC			**Work Order:**	M51R91AE		**Report DB ID:**	9M51R910				
Ni-63	3.21E+00	U	2.6E+00	2.9E+00	6.31E+00	pCi/g	96%	0.51	1/26/15 11:38 p		0.55	LSC4
						2.95E+00	3.00E+01	(2.2)			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51R91AD		**Report DB ID:**	9M51R910				
STRONTIUM	-3.89E-03	U	1.6E-01	1.6E-01	3.90E-01	pCi/g	97%	-0.01	1/26/15 08:04 p		2.02	GPC32A
						1.81E-01	1.00E+00	-0.05			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51R91AA		**Report DB ID:**	9M51R910				
HEXCHROME	2.17E-01			0.0E+00	1.55E-01	mg/kg	N/A	(1.4)	1/23/15 02:00 p		2.503	
							1.55E-01	N/A			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:42:00 AM
Lot-Sample No.:	**J5A210422-9**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V329**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51TA1AH			**Report DB ID:** 9M51TA10					
AMERICIUM 241	**-1.22E-02**	U	7.2E-02	7.2E-02	1.20E-01	pCi/g		*-0.1*	1/22/15 10:37 a		394.2	GER10$1
							1.00E+00	*-0.34*			g	
CO-60	**-1.95E-02**	U	1.5E-02	1.5E-02	2.23E-02	pCi/g		*-0.87*	1/22/15 10:37 a		394.2	GER10$1
							5.00E-02	*-(2.7)*			g	
CS-137	**3.84E-02**	U	1.8E-02	1.8E-02	3.23E-02	pCi/g		*(1.2)*	1/22/15 10:37 a		394.2	GER10$1
							1.00E-01	*(4.4)*			g	
EU-152	**-1.66E-01**	U	7.0E-02	7.0E-02	8.22E-02	pCi/g		*-(2.)*	1/22/15 10:37 a		394.2	GER10$1
							1.00E-01	*-(4.7)*			g	
EU-154	**-3.67E-02**	U	4.7E-02	4.7E-02	7.70E-02	pCi/g		*-0.48*	1/22/15 10:37 a		394.2	GER10$1
							1.00E-01	*-(1.6)*			g	
EU-155	**-1.10E-02**	U	5.2E-02	5.2E-02	8.63E-02	pCi/g		*-0.13*	1/22/15 10:37 a		394.2	GER10$1
							1.00E-01	*-0.42*			g	
K-40	**9.65E+00**		1.2E+00	1.2E+00	1.69E-01	pCi/g		*(57.1)*	1/22/15 10:37 a		394.2	GER10$1
								(15.6)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51TA1AJ			**Report DB ID:** 9M51TA10					
Pu-238	**1.76E-03**	U	3.0E-02	3.0E-02	1.04E-01	pCi/g	93%	*0.02*	1/26/15 09:44 a		1.05	ALP411
						2.79E-02	1.00E+00	*0.12*			g	
PU239/40	**1.35E-02**	U	2.9E-02	2.9E-02	5.89E-02	pCi/g	93%	*0.23*	1/26/15 09:44 a		1.05	ALP411
						1.23E-02	1.00E+00	*0.92*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51TA1AK			**Report DB ID:** 9M51TA10					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:42:00 AM
Lot-Sample No.:	**J5A210422-9**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V329**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	2.71E-03	U	2.8E-02	2.8E-02	9.30E-02	pCi/g	108%	*0.03*	1/26/15 11:42 a		1.05	ALP411
						2.48E-02	1.00E+00	*0.2*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TA1AC		**Report DB ID:**	9M51TA10				
U-234	2.11E-01		1.4E-01	1.5E-01	1.03E-01	pCi/g	53%	*(2.1)*	1/26/15 06:07 p		1.02	ALP411
						2.23E-02	1.00E+00	*(2.8)*			g	
U-235	0.00E+00	U	0.0E+00	4.8E-02	6.45E-02	pCi/g	53%	*0.*	1/26/15 06:07 p		1.02	ALP411
						1.27E-02	1.00E+00	*0.*			g	
U-238	1.67E-01		1.3E-01	1.3E-01	6.45E-02	pCi/g	53%	*(2.6)*	1/26/15 06:07 p		1.02	ALP411
						1.27E-02	1.00E+00	*(2.6)*			g	
							Ratio U-234/238 = 1.3					
Batch: 5021044	NI63_LSC			**Work Order:**	M51TA1AE		**Report DB ID:**	9M51TA10				
Ni-63	9.97E-01	U	2.8E+00	3.0E+00	7.03E+00	pCi/g	100%	*0.14*	1/27/15 12:01 a		0.48	LSC4
						3.28E+00	3.00E+01	*0.66*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TA1AD		**Report DB ID:**	9M51TA10				
STRONTIUM	-1.25E-03	U	1.5E-01	1.5E-01	3.53E-01	pCi/g	100%	*0.*	1/26/15 08:04 p		1.99	GPC32B
						1.63E-01	1.00E+00	*-0.02*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51TA1AA		**Report DB ID:**	9M51TA10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.4995	
							1.55E-01	*N/A*			g	

No. of Results: 16 **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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:18:00 AM
Lot-Sample No.:	**J5A210422-10**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V330**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51TC1AH			**Report DB ID:** 9M51TC10					
AMERICIUM 241	**-2.94E-02**	U	9.8E-02	9.8E-02	1.58E-01	pCi/g		*-0.19*	1/22/15 10:38 a		368.8	GER11$1
							1.00E+00	*-0.6*			g	
CO-60	**-8.74E-03**	U	1.5E-02	1.5E-02	2.52E-02	pCi/g		*-0.35*	1/22/15 10:38 a		368.8	GER11$1
							5.00E-02	*-(1.2)*			g	
CS-137	**2.02E-03**	U	1.5E-02	1.5E-02	2.52E-02	pCi/g		*0.08*	1/22/15 10:38 a		368.8	GER11$1
							1.00E-01	*0.28*			g	
EU-152	**-6.61E-03**	U	3.5E-02	3.5E-02	5.95E-02	pCi/g		*-0.11*	1/22/15 10:38 a		368.8	GER11$1
							1.00E-01	*-0.37*			g	
EU-154	**7.09E-03**	U	4.8E-02	4.8E-02	8.63E-02	pCi/g		*0.08*	1/22/15 10:38 a		368.8	GER11$1
							1.00E-01	*0.29*			g	
EU-155	**2.86E-02**	U	4.0E-02	4.0E-02	6.92E-02	pCi/g		*0.41*	1/22/15 10:38 a		368.8	GER11$1
							1.00E-01	*(1.4)*			g	
K-40	**1.23E+01**		1.6E+00	1.6E+00	2.39E-01	pCi/g		*(51.5)*	1/22/15 10:38 a		368.8	GER11$1
								(15.7)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51TC1AJ			**Report DB ID:** 9M51TC10					
Pu-238	**-5.75E-03**	U	2.9E-02	2.9E-02	8.12E-02	pCi/g	100%	*-0.07*	1/26/15 09:44 a		1.06	ALP413
						2.02E-02	1.00E+00	*-0.4*			g	
PU239/40	**-1.73E-03**	U	2.9E-02	2.9E-02	6.21E-02	pCi/g	100%	*-0.03*	1/26/15 09:44 a		1.06	ALP413
						1.35E-02	1.00E+00	*-0.12*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51TC2AK			**Report DB ID:** 9M51TC20					

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:18:00 AM
Lot-Sample No.:	J5A210422-10	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V330	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	2.68E-02	U	3.9E-02	3.9E-02	4.98E-02	pCi/g	104%	*0.54*	1/26/15 06:01 p		1.06	ALP443
						9.80E-03	1.00E+00	*(1.4)*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TC1AC		**Report DB ID:**	9M51TC10				
U-234	2.12E-01		1.4E-01	1.5E-01	1.15E-01	pCi/g	57%	*(1.8)*	1/26/15 06:08 p		1.01	ALP425
						2.65E-02	1.00E+00	*(2.8)*			g	
U-235	-9.63E-04	U	4.8E-02	4.8E-02	8.76E-02	pCi/g	57%	*-0.01*	1/26/15 06:08 p		1.01	ALP425
						1.72E-02	1.00E+00	*-0.04*			g	
U-238	2.39E-01		1.5E-01	1.6E-01	9.69E-02	pCi/g	57%	*(2.5)*	1/26/15 06:08 p		1.01	ALP425
						2.02E-02	1.00E+00	*(3.)*			g	
							Ratio U-234/238 = 0.9					
Batch: 5021044	NI63_LSC			**Work Order:**	M51TC1AE		**Report DB ID:**	9M51TC10				
Ni-63	7.98E-01	U	2.5E+00	2.7E+00	6.35E+00	pCi/g	100%	*0.13*	1/27/15 12:24 a		0.53	LSC4
						2.97E+00	3.00E+01	*0.58*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TC1AD		**Report DB ID:**	9M51TC10				
STRONTIUM	1.58E-01	U	1.8E-01	1.9E-01	3.90E-01	pCi/g	93%	*0.41*	1/26/15 08:04 p		2.02	GPC32C
						1.81E-01	1.00E+00	*(1.7)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51TC1AA		**Report DB ID:**	9M51TC10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.5016	
							1.55E-01	*N/A*			g	

No. of Results: 16 **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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-11
Client Sample ID: J1V331

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 9:24:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:**	M51TD1AH		**Report DB ID:**	9M51TD10				
AMERICIUM 241	-1.10E-02	U	2.1E-02	2.1E-02	3.39E-02	pCi/g		-0.32	1/22/15 10:38 a		381.1	GER15$1
							1.00E+00	-(1.1)			g	
CO-60	-6.22E-04	U	1.3E-02	1.3E-02	2.35E-02	pCi/g		-0.03	1/22/15 10:38 a		381.1	GER15$1
							5.00E-02	-0.1			g	
CS-137	1.08E-02	U	1.4E-02	1.4E-02	2.57E-02	pCi/g		0.42	1/22/15 10:38 a		381.1	GER15$1
							1.00E-01	(1.5)			g	
EU-152	9.33E-03	U	3.8E-02	3.8E-02	5.75E-02	pCi/g		0.16	1/22/15 10:38 a		381.1	GER15$1
							1.00E-01	0.49			g	
EU-154	-2.77E-02	U	4.6E-02	4.6E-02	7.61E-02	pCi/g		-0.36	1/22/15 10:38 a		381.1	GER15$1
							1.00E-01	-(1.2)			g	
EU-155	1.83E-02	U	3.0E-02	3.0E-02	5.26E-02	pCi/g		0.35	1/22/15 10:38 a		381.1	GER15$1
							1.00E-01	(1.2)			g	
K-40	8.67E+00		1.1E+00	1.1E+00	1.86E-01	pCi/g		(46.5)	1/22/15 10:38 a		381.1	GER15$1
								(15.6)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:**	M51TD1AJ		**Report DB ID:**	9M51TD10				
Pu-238	2.73E-02	U	4.2E-02	4.2E-02	6.79E-02	pCi/g	100%	0.4	1/26/15 09:44 a		0.99	ALP414
						1.52E-02	1.00E+00	(1.3)			g	
PU239/40	1.49E-02	U	3.0E-02	3.0E-02	4.02E-02	pCi/g	100%	0.37	1/26/15 09:44 a		0.99	ALP414
						7.90E-03	1.00E+00	1.			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51TD1AK		**Report DB ID:**	9M51TD10				

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A210422-11
Client Sample ID: J1V331

SDG: JP0895
Report No. : 64403
COC No. : RC-075-463

Collection Date: 1/20/2015 9:24:00 AM
Received Date: 1/21/2015 1:10:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	2.67E-02	U	4.2E-02	4.2E-02	7.11E-02	pCi/g	106%	*0.38*	1/26/15 11:42 a		0.99	ALP414
						1.63E-02	1.00E+00	*(1.3)*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TD1AC		**Report DB ID:**	9M51TD10				
U-234	7.31E-02		6.6E-02	6.7E-02	5.36E-02	pCi/g	91%	*(1.4)*	1/26/15 06:08 p		1.02	ALP426
						1.06E-02	1.00E+00	*(2.2)*			g	
U-235	-2.36E-03	U	3.0E-02	3.0E-02	6.73E-02	pCi/g	91%	*-0.04*	1/26/15 06:08 p		1.02	ALP426
						1.51E-02	1.00E+00	*-0.16*			g	
U-238	1.61E-01		9.8E-02	1.0E-01	5.36E-02	pCi/g	91%	*(3.)*	1/26/15 06:08 p		1.02	ALP426
						1.06E-02	1.00E+00	*(3.2)*			g	
							Ratio U-234/238 = 0.5					
Batch: 5021044	NI63_LSC			**Work Order:**	M51TD1AE		**Report DB ID:**	9M51TD10				
Ni-63	4.22E+00	U	2.8E+00	3.1E+00	6.60E+00	pCi/g	100%	*0.64*	1/27/15 01:10 a		0.51	LSC4
						3.08E+00	3.00E+01	*(2.7)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TD1AD		**Report DB ID:**	9M51TD10				
STRONTIUM	1.61E-01	U	2.1E-01	2.1E-01	4.41E-01	pCi/g	92%	*0.37*	1/26/15 08:04 p		1.99	GPC32D
						2.06E-01	1.00E+00	*(1.5)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51TD1AA		**Report DB ID:**	9M51TD10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.5069	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:27:00 AM
Lot-Sample No.:	**J5A210422-12**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V332**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51TE1AH			**Report DB ID:** 9M51TE10					
AMERICIUM 241	**-1.10E-03**	U	1.5E-02	1.5E-02	2.56E-02	pCi/g		*-0.04*	1/22/15 10:38 a		353.2	GER16$1
							1.00E+00	*-0.14*			g	
CO-60	**1.02E-02**	U	1.4E-02	1.4E-02	2.66E-02	pCi/g		*0.38*	1/22/15 10:38 a		353.2	GER16$1
							5.00E-02	*(1.5)*			g	
CS-137	**6.51E-03**	U	1.3E-02	1.3E-02	2.30E-02	pCi/g		*0.28*	1/22/15 10:38 a		353.2	GER16$1
							1.00E-01	*(1.)*			g	
EU-152	**9.53E-03**	U	2.7E-02	2.7E-02	4.70E-02	pCi/g		*0.2*	1/22/15 10:38 a		353.2	GER16$1
							1.00E-01	*0.7*			g	
EU-154	**4.12E-03**	U	4.9E-02	4.9E-02	8.69E-02	pCi/g		*0.05*	1/22/15 10:38 a		353.2	GER16$1
							1.00E-01	*0.17*			g	
EU-155	**2.61E-02**	U	2.2E-02	2.2E-02	3.92E-02	pCi/g		*0.67*	1/22/15 10:38 a		353.2	GER16$1
							1.00E-01	*(2.3)*			g	
K-40	**1.05E+01**		1.3E+00	1.3E+00	2.35E-01	pCi/g		*(44.7)*	1/22/15 10:38 a		353.2	GER16$1
								(16.2)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51TE1AJ			**Report DB ID:** 9M51TE10					
Pu-238	**1.33E-02**	U	2.9E-02	2.9E-02	5.84E-02	pCi/g	100%	*0.23*	1/26/15 09:48 a		1.01	ALP423
						1.22E-02	1.00E+00	*0.92*			g	
PU239/40	**1.39E-02**	U	2.9E-02	2.9E-02	5.28E-02	pCi/g	100%	*0.26*	1/26/15 09:48 a		1.01	ALP423
						1.04E-02	1.00E+00	*0.96*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51TE1AK			**Report DB ID:** 9M51TE10					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:27:00 AM
Lot-Sample No.:	J5A210422-12	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V332	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	1.37E-02	U	2.9E-02	2.9E-02	5.19E-02	pCi/g	103%	*0.26*	1/26/15 11:42 a		1.01	ALP420
						1.02E-02	1.00E+00	*0.96*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TE1AC		**Report DB ID:**	9M51TE10				
U-234	3.01E-01		1.4E-01	1.5E-01	6.40E-02	pCi/g	80%	*(4.7)*	1/26/15 06:09 p		1.01	ALP427
						1.33E-02	1.00E+00	*(4.)*			g	
U-235	1.53E-02	U	3.2E-02	3.2E-02	5.79E-02	pCi/g	80%	*0.26*	1/26/15 06:09 p		1.01	ALP427
						1.14E-02	1.00E+00	*0.96*			g	
U-238	3.80E-01		1.6E-01	1.7E-01	6.40E-02	pCi/g	80%	*(5.9)*	1/26/15 06:09 p		1.01	ALP427
						1.33E-02	1.00E+00	*(4.5)*			g	
								Ratio U-234/238 = 0.8				
Batch: 5021044	NI63_LSC			**Work Order:**	M51TE1AE		**Report DB ID:**	9M51TE10				
Ni-63	7.87E-01	U	2.7E+00	3.0E+00	6.87E+00	pCi/g	98%	*0.11*	1/27/15 01:33 a		0.5	LSC4
						3.21E+00	3.00E+01	*0.53*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TE1AD		**Report DB ID:**	9M51TE10				
STRONTIUM	7.51E-02	U	1.9E-01	1.9E-01	4.16E-01	pCi/g	92%	*0.18*	1/26/15 08:04 p		2.03	GPC31A
						1.93E-01	1.00E+00	*0.81*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51TE1AA		**Report DB ID:**	9M51TE10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/23/15 02:00 p		2.5036	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:34:00 AM
Lot-Sample No.:	J5A210422-13	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V333	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51TF1AH			**Report DB ID:** 9M51TF10					
AMERICIUM 241	**5.59E-03**	U	2.0E-02	2.0E-02	3.04E-02	pCi/g		*0.18*	1/22/15 10:39 a		382.3	GER17$1
							1.00E+00	*0.55*			g	
CO-60	**-1.54E-03**	U	1.4E-02	1.4E-02	2.46E-02	pCi/g		*-0.06*	1/22/15 10:39 a		382.3	GER17$1
							5.00E-02	*-0.22*			g	
CS-137	**1.04E-02**	U	1.4E-02	1.4E-02	2.15E-02	pCi/g		*0.48*	1/22/15 10:39 a		382.3	GER17$1
							1.00E-01	*(1.5)*			g	
EU-152	**4.88E-02**	U	4.3E-02	4.3E-02	4.91E-02	pCi/g		*0.99*	1/22/15 10:39 a		382.3	GER17$1
							1.00E-01	*(2.2)*			g	
EU-154	**-1.88E-02**	U	4.2E-02	4.2E-02	7.11E-02	pCi/g		*-0.26*	1/22/15 10:39 a		382.3	GER17$1
							1.00E-01	*-0.89*			g	
EU-155	**4.27E-02**	U	2.6E-02	2.6E-02	4.65E-02	pCi/g		*0.92*	1/22/15 10:39 a		382.3	GER17$1
							1.00E-01	*(3.3)*			g	
K-40	**1.27E+01**		1.5E+00	1.5E+00	1.85E-01	pCi/g		*(68.7)*	1/22/15 10:39 a		382.3	GER17$1
								(16.7)			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51TF1AJ			**Report DB ID:** 9M51TF10					
Pu-238	**-5.43E-04**	U	2.7E-02	2.7E-02	4.94E-02	pCi/g	100%	*-0.01*	1/26/15 09:48 a		1.06	ALP420
						9.73E-03	1.00E+00	*-0.04*			g	
PU239/40	**1.09E-02**	U	2.7E-02	2.7E-02	6.50E-02	pCi/g	100%	*0.17*	1/26/15 09:48 a		1.06	ALP420
						1.49E-02	1.00E+00	*0.79*			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51TF1AK			**Report DB ID:** 9M51TF10					

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 27-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:34:00 AM
Lot-Sample No.:	J5A210422-13	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	J1V333	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	-4.22E-03	U	2.7E-02	2.7E-02	7.04E-02	pCi/g	109%	*-0.06*	1/26/15 11:43 a		1.06	ALP421
						1.70E-02	1.00E+00	*-0.32*			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TF1AC		**Report DB ID:**	9M51TF10				
U-234	1.42E-01		1.1E-01	1.1E-01	5.49E-02	pCi/g	64%	*(2.6)*	1/26/15 06:09 p		1.01	ALP428
						1.08E-02	1.00E+00	*(2.6)*			g	
U-235	-8.10E-04	U	4.1E-02	4.1E-02	7.37E-02	pCi/g	64%	*-0.01*	1/26/15 06:09 p		1.01	ALP428
						1.45E-02	1.00E+00	*-0.04*			g	
U-238	1.61E-01		1.1E-01	1.2E-01	7.37E-02	pCi/g	64%	*(2.2)*	1/26/15 06:09 p		1.01	ALP428
						1.45E-02	1.00E+00	*(2.7)*			g	
							Ratio U-234/238 = 0.9					
Batch: 5021044	NI63_LSC			**Work Order:**	M51TF1AE		**Report DB ID:**	9M51TF10				
Ni-63	3.22E+00	U	2.9E+00	3.2E+00	7.05E+00	pCi/g	99%	*0.46*	1/27/15 01:56 a		0.48	LSC4
						3.29E+00	3.00E+01	*(2.)*			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TF1AD		**Report DB ID:**	9M51TF10				
STRONTIUM	1.59E-01	U	2.3E-01	2.3E-01	4.89E-01	pCi/g	73%	*0.33*	1/26/15 08:04 p		2.04	GPC31B
						2.27E-01	1.00E+00	*(1.4)*			g	
Batch: 5022022	7196_CR6			**Work Order:**	M51TF1AA		**Report DB ID:**	9M51TF10				
HEXCHROME	2.79E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.8)*	1/23/15 02:00 p		2.5027	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:20:00 AM
Lot-Sample No.:	**J5A210422-1**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V321**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022022	7196_CR6			**Work Order:** M51RW1AP		**Report DB ID:** M51RW1ER			**Orig Sa DB ID:** 9M51RW10			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	1/23/15 02:00 p		2.5008	
	1.55E-01	U	**RPD**	**0.0**		1.55E-01		N/A			g	

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

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

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:20:00 AM
Lot-Sample No.:	**J5A210422-1**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V321 DUP**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:** M51RW1AL		**Report DB ID:** M51RW1LR			**Orig Sa DB ID:** 9M51RW10			
Pu-238	-2.34E-03	U	3.0E-02	3.0E-02	1.13E-01	pCi/g	100%	-0.02	1/26/15 09:42 a		1.0	ALP403
	2.11E-02	U	**RPD**	**249.9**		1.00E+00		-0.16			g	
PU239/40	-1.76E-03	U	2.9E-02	2.9E-02	6.32E-02	pCi/g	100%	-0.03	1/26/15 09:42 a		1.0	ALP403
	-1.21E-03	U	**RPD**	**-37.1**		1.00E+00		-0.12			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:** M51RW1AM		**Report DB ID:** M51RW1MR			**Orig Sa DB ID:** 9M51RW10			
AMERICIUM 241	-1.11E-02	U	3.0E-02	3.0E-02	9.90E-02	pCi/g	110%	-0.11	1/26/15 11:40 a		1.0	ALP403
	1.99E-02	U	**RPD**	**706.3**		1.00E+00		-0.75			g	

No. of Results: 3 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:28:00 AM
Lot-Sample No.:	**J5A210422-2**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V322 DUP**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:** M51RX1AL		**Report DB ID:** M51RX1LR			**Orig Sa DB ID:** 9M51RX10			
U-234	7.77E-02		9.0E-02	9.1E-02	7.02E-02	pCi/g	52%	(1.1)	1/26/15 06:04 p		1.01	ALP404
	1.32E-01		**RPD**	**51.6**		1.00E+00		(1.7)			g	
U-235	-1.04E-03	U	5.2E-02	5.2E-02	9.43E-02	pCi/g	52%	-0.01	1/26/15 06:04 p		1.01	ALP404
	1.27E-02	U	**RPD**	**235.7**		1.00E+00		-0.04			g	
U-238	1.30E-01		1.2E-01	1.2E-01	7.02E-02	pCi/g	52%	(1.8)	1/26/15 06:04 p		1.01	ALP404
	1.17E-01		**RPD**	**10.1**		1.00E+00		(2.2)			g	

Ratio U-234/238 = 0.6 *Alpha Spec Result Sum = 2.1E-01*

No. of Results: 3 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 9:08:00 AM
Lot-Sample No.:	**J5A210422-4**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V324 DUP**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021044	NI63_LSC			**Work Order:** M51R21AL		**Report DB ID:** M51R21LR			**Orig Sa DB ID:** 9M51R210			
Ni-63	1.53E+00	U	2.7E+00	2.9E+00	6.65E+00	pCi/g	97%	0.23	1/26/15 10:07 p		0.52	LSC4
	9.58E-01	U	**RPD**	**45.7**		3.00E+01		(1.)			g	

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

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:34:00 AM
Lot-Sample No.:	**J5A210422-5**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V325 DUP**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51R31AL		**Report DB ID:** M51R31LR			**Orig Sa DB ID:** 9M51R310			
STRONTIUM	2.61E-01	U	1.9E-01	2.0E-01	3.83E-01	pCi/g	95%	0.68	1/26/15 07:04 p		2.03	GPC32C
	5.15E-02	U	**RPD**	**134.1**		1.00E+00		(2.6)			g	

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

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 27-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0895	**Collection Date:**	1/20/2015 8:47:00 AM
Lot-Sample No.:	**J5A210422-6**	**Report No. :**	64403	**Received Date:**	1/21/2015 1:10:00 PM
Client Sample ID:	**J1V326 DUP**	**COC No. :**	RC-075-463	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5021040	GAMMA_GS			**Work Order:** M51R51AL		**Report DB ID:** M51R51LR			**Orig Sa DB ID:** 9M51R510			
AMERICIUM 241	1.88E-03	U	1.5E-02	1.5E-02	2.46E-02	pCi/g		0.08	1/22/15 07:11 a		417.7	GER18$1
	-5.75E-03	U	**RPD**	**-394.5**		1.00E+00		0.26			g	
CO-60	-4.39E-03	U	1.2E-02	1.2E-02	2.07E-02	pCi/g		-0.21	1/22/15 07:11 a		417.7	GER18$1
	2.48E-03	U	**RPD**	**-717.4**		5.00E-02		-0.73			g	
CS-137	8.64E-03	U	1.1E-02	1.1E-02	1.97E-02	pCi/g		0.44	1/22/15 07:11 a		417.7	GER18$1
	3.67E-03	U	**RPD**	**80.8**		1.00E-01		(1.6)			g	
EU-152	-3.55E-03	U	2.3E-02	2.3E-02	3.94E-02	pCi/g		-0.09	1/22/15 07:11 a		417.7	GER18$1
	-4.11E-03	U	**RPD**	**-14.8**		1.00E-01		-0.31			g	
EU-154	4.71E-02	U	3.8E-02	3.8E-02	7.26E-02	pCi/g		0.65	1/22/15 07:11 a		417.7	GER18$1
	-1.72E-02	U	**RPD**	**431.1**		1.00E-01		(2.5)			g	
EU-155	4.42E-02	U	2.3E-02	2.3E-02	4.08E-02	pCi/g		(1.1)	1/22/15 07:11 a		417.7	GER18$1
	5.64E-02		**RPD**	**24.2**		1.00E-01		(3.9)			g	
K-40	1.23E+01		1.5E+00	1.5E+00	1.71E-01	pCi/g		(71.9)	1/22/15 07:11 a		417.7	GER18$1
	1.28E+01		**RPD**	**3.8**				(16.7)			g	

No. of Results: 7 **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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0895

Report No. : 64403

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022022	7196_CR6			**Work Order:**	M51W91AA		**Report DB ID:**	M51W91AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	1/23/15 02:00 p		2.5	
						1.55E-01		N/A			g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:**	M51TK1AA		**Report DB ID:**	M51TK1AB				
Pu-238	-4.93E-03	U	3.5E-02	3.5E-02	9.11E-02	pCi/g	74%	-0.05	1/26/15 09:45 a		1.07	ALP421
					2.17E-02	1.00E+00		-0.28			g	
PU239/40	-7.04E-04	U	3.5E-02	3.5E-02	6.41E-02	pCi/g	74%	-0.01	1/26/15 09:45 a		1.07	ALP421
					1.26E-02	1.00E+00		-0.04			g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51TL1AA		**Report DB ID:**	M51TL1AB				
AMERICIUM 241	1.54E-02	U	3.5E-02	3.5E-02	7.56E-02	pCi/g	78%	0.2	1/26/15 11:43 a		1.07	ALP422
					1.64E-02	1.00E+00		0.87			g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TM1AA		**Report DB ID:**	M51TM1AB				
U-234	-8.74E-04	U	4.4E-02	4.4E-02	7.95E-02	pCi/g	58%	-0.01	1/26/15 06:10 p		1.03	ALP429
					1.57E-02	1.00E+00		-0.04			g	
U-235	-8.74E-04	U	4.4E-02	4.4E-02	7.95E-02	pCi/g	58%	-0.01	1/26/15 06:10 p		1.03	ALP429
					1.57E-02	1.00E+00		-0.04			g	
U-238	0.00E+00	U	0.0E+00	4.4E-02	5.92E-02	pCi/g	58%	0.	1/26/15 06:10 p		1.03	ALP429
					1.16E-02	1.00E+00		0.			g	
Batch: 5021044	NI63_LSC			**Work Order:**	M51TN1AA		**Report DB ID:**	M51TN1AB				
Ni-63	-2.45E+00	U	2.9E+00	3.1E+00	7.91E+00	pCi/g	79%	-0.31	1/27/15 02:19 a		0.54	LSC4
					3.69E+00	3.00E+01		-(1.6)			g	
Batch: 5021040	GAMMA_GS			**Work Order:**	M51TJ1AA		**Report DB ID:**	M51TJ1AB				

TestAmerica Inc
rptSTLRchBlank
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc

SDG: JP0895

Matrix: SOIL

Report No. : 64403

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
AMERICIUM 241	3.44E-03	U	7.8E-03	7.8E-03	1.40E-02	pCi/g		0.25	1/22/15 10:39 a		348.0	GER18$1
						1.00E+00		0.88			g	
CO-60	-4.30E-03	U	7.7E-03	7.7E-03	1.34E-02	pCi/g		-0.32	1/22/15 10:39 a		348.0	GER18$1
						5.00E-02		-(1.1)			g	
CS-137	1.18E-03	U	7.5E-03	7.5E-03	1.39E-02	pCi/g		0.09	1/22/15 10:39 a		348.0	GER18$1
						1.00E-01		0.31			g	
EU-152	-1.49E-03	U	1.7E-02	1.7E-02	2.96E-02	pCi/g		-0.05	1/22/15 10:39 a		348.0	GER18$1
						1.00E-01		-0.18			g	
EU-154	7.51E-03	U	2.5E-02	2.5E-02	4.74E-02	pCi/g		0.16	1/22/15 10:39 a		348.0	GER18$1
						1.00E-01		0.61			g	
EU-155	8.96E-03	U	1.2E-02	1.2E-02	2.26E-02	pCi/g		0.4	1/22/15 10:39 a		348.0	GER18$1
						1.00E-01		(1.5)			g	
K-40	-2.84E-01	U	2.1E-01	2.1E-01	4.35E-01	pCi/g		-0.65	1/22/15 10:39 a		348.0	GER18$1
								-(2.7)			g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51TP1AA		**Report DB ID:**	M51TP1AB				
STRONTIUM	1.55E-01	U	2.3E-01	2.3E-01	5.01E-01	pCi/g	73%	0.31	1/26/15 08:04 p		2.02	GPC31C
					2.33E-01	1.00E+00		(1.3)			g	

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

TestAmerica Inc
rptSTLRchBlank
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0895

Report No. : 64403

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 5022022	7196_CR6			**Work Order:**	M51W91AC		**Report DB ID:**	M51W91AS					
HEXCHROME	1.91E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		96%	1/23/15 02:00 p	2.5	
							Rec Limits:	80	120	0.0		g	
Batch: 5021041	PUISO_PLATE_AEA			**Work Order:**	M51TK1AC		**Report DB ID:**	M51TK1CS					
PU239/40	4.27E+00		5.6E-01	9.8E-01	7.51E-02	pCi/g	76%	4.63E+00	1.4E-01	92%	1/26/15 09:45 a	1.03	ALP422
							Rec Limits:	70	130	-0.1		g	
Batch: 5021042	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51TL1AC		**Report DB ID:**	M51TL1CS					
AMERICIUM 241	4.68E+00		5.9E-01	1.1E+00	8.09E-02	pCi/g	76%	4.79E+00	4.8E-02	98%	1/26/15 11:43 a	1.03	ALP423
							Rec Limits:	70	130	0.0		g	
Batch: 5021043	UISO_IE_PLATE_AEA			**Work Order:**	M51TM1AC		**Report DB ID:**	M51TM1CS					
U-234	2.54E+00		4.8E-01	6.9E-01	9.71E-02	pCi/g	57%	3.23E+00	1.0E-01	79%	1/26/15 06:10 p	1.01	ALP430
							Rec Limits:	70	130	-0.2		g	
U-238	2.94E+00		5.1E-01	7.7E-01	8.18E-02	pCi/g	57%	3.38E+00	1.0E-01	87%	1/26/15 06:10 p	1.01	ALP430
							Rec Limits:	70	130	-0.1		g	
Batch: 5021044	NI63_LSC			**Work Order:**	M51TN1AC		**Report DB ID:**	M51TN1CS					
Ni-63	2.73E+02		1.2E+01	1.9E+01	9.48E+00	pCi/g	72%	3.24E+02	5.4E+00	84%	1/27/15 02:42 a	0.49	LSC4
							Rec Limits:	70	130	-0.2		g	
Batch: 5021040	GAMMA_GS			**Work Order:**	M51TJ1AC		**Report DB ID:**	M51TJ1CS					
CS-137	1.02E+00		1.4E-01	1.4E-01	2.42E-02	pCi/g		9.94E-01	1.0E-02	103%	1/22/15 10:39 a	350.1	GER19$1
							Rec Limits:	70	130	0.0		g	
RA-226	9.39E-01		1.4E-01	1.4E-01	3.91E-02	pCi/g		1.14E+00	1.2E-02	83%	1/22/15 10:39 a	350.1	GER19$1
							Rec Limits:	70	130	-0.2		g	

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

rptSTLRchLcs
V5.3.6.5 A2002

FORM II

LCS RESULTS

Date: 27-Jan-15

Lab Name: TestAmerica Inc

SDG: JP0895

Matrix: SOIL

Report No. : 64403

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
RA-228	4.99E-01		1.3E-01	1.3E-01	7.64E-02	pCi/g		5.94E-01	6.1E-03	84%	1/22/15 10:39 a	350.1	GER19$1
							Rec Limits:	70	130	-0.2		g	
U-238	9.69E-01		1.3E-01	1.3E-01	4.21E-02	pCi/g		1.20E+00	1.2E-02	81%	1/22/15 10:39 a	350.1	GER19$1
							Rec Limits:	70	130	-0.2		g	
Batch: 5021045	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51TP1AC			**Report DB ID:** M51TP1CS						
STRONTIUM	3.32E+00		4.3E-01	8.7E-01	4.04E-01	pCi/g	83%	3.50E+00	2.5E-02	95%	1/26/15 08:04 p	2.02	GPC31D
							Rec Limits:	70	130	-0.1		g	

No. of Results: 11 **Comments:**

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

rptSTLRchLcs
V5.3.6.5 A2002

FORM II

Date: 27-Jan-15

MATRIX SPIKE RESULTS

Lab Name: TestAmerica Inc **SDG:** JP0895

Lot-Sample No.: J5A210422-1, J1V321 **Report No. :** 64403 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 5022022	Work Order: M51RW1AN			Report DB ID: M51RW1CW			Orig Sa DB ID: 9M51RW10					
HEXCHROME	2.94E+01			0.0E+00	1.55E-01	mg/kg	N/A	92.84%	3.17E+01	1/23/15 02:00 p	2.5046	7196_CR6
	1.55E-01										g	

Number of Results: 1

Comments:

TestAmerica Inc
rptSTLRchMs
V5.3.6.5 A2002

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/26/2015 3:24:39 PM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021041; RPUISO Pulso by ALP
SDG, Matrix: JP0895; SOIL

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

6.0 Comments on any No response:

First Level [signature] **Date** 1/26/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021041

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0pci/g

Second Level Review: Rhonda Wilson Date: 1/27/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/27/2015 9:06:03 AM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021043; RUISO Uiso by ALP
SDG, Matrix: JP0895; SOIL

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

6.0 Comments on any No response:

First Level Lisa Gustafson Date 1/27/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021043

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0pCi/g

Second Level Review: Brandee Yen Date: 1/27/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/27/2015 8:34:09 AM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021042; RAMISO Amlso by ALP
SDG, Matrix: JP0895; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level [signature] **Date** 1/27/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021042

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g

Second Level Review: Brandie Wyatt Date: 1/27/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/27/2015 9:10:30 AM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021045; RSRTOT SrTot by GPC
SDG, Matrix: JP0895; SOIL

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

6.0 Comments on any No response:

First Level _____ **Date** 1/27/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021046

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g

Second Level Review: Brenda Wyn Date: 1/27/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/23/2015 11:06:01 AM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021040; RGAMMA Gamma by GER
SDG, Matrix: JP0895; SOIL

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

6.0 Comments on any No response:

First Level [signature] Date 1/23/15

TestAmerica Richland
GAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021040

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: QRDL = 0.1 pCi/g

Second Level Review: Rhonda Wyan Date: 1/20/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-30034**
NCM Initiated By: Lisa Antonson
Date Opened: 01/23/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J5A210000 (40), J5A210422 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 5021040,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/23/2015	MDA exceeds CRDL for Eu-154 in samples M51RW and M5R19

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/23/2015	None

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/23/2015

Page 1 of 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/27/2015 1:33:42 PM

Lot No., Due Date: J5A210422; 01/28/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5021044; RNI63 Ni-63 by LSC
SDG, Matrix: JP0895; SOIL

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

5.8 Comments on any No response:

First Level Lisa Autorson **Date** 1/27/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5021044

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 30pCi/g

Second Level Review: [signature] Date: 1/27/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s):	5022041	Lab Sample Numbers or SDG:	JP0895

Method/Test/Parameter: Cr+6 ☐ RL-WC-008(Aqueous) ☐ RL-WC-003(Aqueous) ☒ RL-WC-004(Solid)

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 greater than 0.97?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within 10% of expected?	✓			✓
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 10% of expected?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis 1. Were any samples with concentrations above the linear range diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
D. QC Samples 1. All results for the preparation blank below limits?	✓			✓
2. LCS percent recovery within 85-115%	✓			✓
3. $PbCrO_4$ percent recovery within 75-125%?	✓			✓
4. Sample and Duplicate within 20% (aqueous) or 35% (solid) RPD?			✓	✓
5. MS or MS/MSD recoveries within 85-115% (aqueous) or 75-125% (solid)?	✓			✓
6. On MS failure, PDMS within 85-115%?			✓	✓
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 or list NCM number:

Analyst I. Salifu Date 1-23-15 2nd Review [signature] Date 1/27/15

CG-231 Rev 2, 10/14

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463 | Page 1 of 3

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7 days		
Project Designation: 100-D/DR Field Remediation	Sampling Location: 100-D-85:2, Verification, Excavation		SAF No.: RC-075
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1662-03	COA: 01D8522000	Method of Shipment: Local Delivery
Shipped To: TestAmerica Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

Other Labs Shipped To: TestAmerica Denver

RCF 38738

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially radioactive, less than DOT

Special Handling and/or Storage

cooling as required

Preservation	Cool 4C	None	None	None							
Type of Container	G/P	G/P	G/P	G/P							
No. of Container(s)	1	1	1	1							
Volume	125mL	120mL	120mL	1000mL							
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions							

Sample No.	Matrix	Sample Date	Sample Time										
J1V321 MS1RW	SOIL	01/20/15	0820	X	X	X	X						
J1V322 MS1RX	SOIL	01/20/15	0828	X	X	X	X						
J1V323 MS1RO	SOIL	01/20/15	0858	X	X	X	X						
J1V324 MS1R2	SOIL	01/20/15	0908	X	X	X	X						
J1V325 MS1R3	SOIL	01/20/15	0834	X	X	X	X						

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1-20-15 0942	C.Martinez/C.Martinez	01/20/15 0942
C.Martinez/C.Martinez	01/20/15 1545	C. Bingham	1-20-15 1545
C. Bingham	1-20-15 1600	1060 Battelle, fridge #2A	1-20-15 1600
1060 Battelle, fridge #2A	1-21-15 0720	C. Bingham	1-21-15 0720
C. Bingham WCH	1-21-15 1310	Jack J. Bartlett	1-21-15 1310

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

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

J5A210422

J5A210422
Due 1-28-15

SOG:

JP0895

REVIEWED BY D. St John Vincent
DATE 1-21-15

WCH-EE-011

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463 | Page 2 of 3

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7days		
Project Designation: 100-D/DR Field Remediation	Sampling Location: 100-D-85:2, Verification, Excavation		SAF No.: RC-075
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1662-03	COA: 01D8522000	Method of Shipment: Local Delivery
Shipped To: TestAmerica Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

Other Labs Shipped To: TestAmerica Denver

RCF 38738

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially radioactive, less than DOT

Special Handling and/or Storage

cooling as required

Preservation	Cool 4C	None	None	None							
Type of Container	G/P	G/P	G/P	G/P							
No. of Container(s)	1	1	1	1							
Volume	125mL	120mL	120mL	1000mL							
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions							

Sample No.	Matrix	Sample Date	Sample Time										
J1V326 MS1R5	SOIL	01/20/15	0847	X	X	X	X						
J1V327 MS1R7	SOIL	01/20/15	0853	X	X	X	X						
J1V328 MS1R9	SOIL	01/20/15	0911	X	X	X	X						
J1V329 MS1TA	SOIL	01/20/15	0842	X	X	X	X						
J1V330 MS1TC	SOIL	01/20/15	0918	X	X	X	X						

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1-20-15 0942	C. Martinez/C. Martinez	01/20/15 0942
C. Martinez/C. Martinez	01/20/15 1545	C. Bingham	1-20-15 1545
C. Bingham	1-20-15 1600	1060 Battelle, Fridge #2A	1-20-15 1600
1060 Battelle, Fridge #2A	1-21-15 0720	C. Bingham	1-21-15 0720
C. Bingham WCH	1-21-15 1310	Jack J Bock-Tate	1-21-15 1310

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

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

J5A210422
Due 1-28-15

J5A210422

REVIEWED BY D. St. John Vincent DATE 1-21-15

JP0895

WCH-EE-011

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7days		
Project Designation: 100-D/DR Field Remediation	Sampling Location: 100-D-85:2, Verification, Excavation		SAF No.: RC-075
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1662-03	COA: 01D8522000	Method of Shipment: Local Delivery
Shipped To: TestAmerica Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

Other Labs Shipped To: TestAmerica Denver

RCF 38738

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially radioactive, less than DOT

Special Handling and/or Storage

cooling as required

Preservation	Cool 4C	None	None	None							
Type of Container	G/P	G/P	G/P	G/P							
No. of Container(s)	1	1	1	1							
Volume	125mL	120mL	120mL	1000mL							
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions							

Sample No.	Matrix	Sample Date	Sample Time										
J1V331 MSITD	SOIL	01/20/15	0924	X	X	X	X						
J1V332 MSITE	SOIL	01/20/15	0927	X	X	X	X						
J1V333 MSITF	SOIL	01/20/15	0834	X	X	X	X						

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1-20-15 0942	C. Martinez/C. Martinez	01/20/15 0942
C. Martinez/C. Martinez	01/20/15 1545	C. Bingham	1-20-15 1545
C. Bingham	1-20-15 1600	1060 Battelle, fridge #2A	1-20-15 1600
1060 Battelle, fridge #2A	1-21-15 0720	C. Bingham	1-21-15 0720
C. Bingham WCH	1-21-15 1310	Jack J. Buck TALL	1-21-15 1310

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

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

JSA210422

Due 1-28-15

REVIEWED BY D. St. John Vaughn DATE 1-21-15

JP0895

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 1/21/15 1310 Container GM Screen Result: (Airlock) 20 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [B]

Client: WCH SDG #: JP0895 SAF #: RC-075 NA [ ]

Lot Number: JSA210422

Chain of Custody # RC-075-463

Shipping Container ID or Air Bill Number: Hand Delivered NA [B]

Samples received inside shipping container/cooler/box Yes [B] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [B] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [B] No [ ] No Custody Seal [ ]
3. Cooler temperature: 6.6 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [J] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [J] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 13
7. Containers received: 13 x 4p; 39 x 120 mlp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [J]
9. Samples have: ____tape ____hazard labels J custody seals J appropriate sample labels
10. Matrix: B A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
    J are in good condition ____are leaking ____are broken
    ____have air bubbles (Only for samples requiring no head space) ____Other ____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [J]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [J]
14. Description of anomalies (include sample numbers): NA [J] ____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [J]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

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

Sample Check-in List completed by Sample Custodian:
Signature: ____ Date: 1/21/15

Client Notification needed? Yes [ ] No [X] Date: ____
By: ____
Person contacted: ____

[X] No action necessary; process as is

Project Manager ____ Date 1/21/15

LS-023 Rev. 17, 05/13

1/22/2015 5:26:45 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Pipet #:

AnalyDueDate: 01/28/2015 JP0895

Sep1 DT/Tm Tech:

Batch: 5021041 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5021042, 6ISX 5021042, 6ISX

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AJ J5A210422-1-SAMP 01/20/2015 08:20			1.03g,in AmtRec: 1XLP;3X120MLP	1.03g	PATB5530 12/16/14,pd 01/01/10,r #Containers: 4				100 Scr:	401 Alpha:	1038	1/26/15 JJ Beta:	
2 M51RW-1-AL-X J5A210422-1-DUP 01/20/2015 08:20			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	PATB5531 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	403 Alpha:		Beta:	
3 M51RX-1-AJ J5A210422-2-SAMP 01/20/2015 08:28			0.97g,in AmtRec: 1XLP;3X120MLP	0.97g	PATB5532 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	404 Alpha:		Beta:	
4 M51R0-1-AJ J5A210422-3-SAMP 01/20/2015 08:58			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	PATB5533 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	405 Alpha:		Beta:	
5 M51R2-1-AJ J5A210422-4-SAMP 01/20/2015 09:08			0.98g,in AmtRec: 1XLP;3X120MLP	0.98g	PATB5534 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	406 Alpha:		Beta:	
6 M51R3-1-AJ J5A210422-5-SAMP 01/20/2015 08:34			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5535 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	407 Alpha:		Beta:	
7 M51R5-1-AJ J5A210422-6-SAMP 01/20/2015 08:47			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5536 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	408 Alpha:		Beta:	

1/22/2015 5:26:47 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021041 SOIL pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: 5021042, 6ISX

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AJ J5A210422-7-SAMP 01/20/2015 08:53			1.04g,in AmtRec: 1XLP;3X120MLP	1.04g	PATB5537 01/21/15,pd 04/04/05,r #Containers: 4				100 Scr:	409 Alpha:	1038	1/26/15 JS Beta:	
9 M51R9-1-AJ J5A210422-8-SAMP 01/20/2015 09:11			1.03g,in AmtRec: 1XLP;3X120MLP	1.03g	PATB5538 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	410 Alpha:		Beta:	
10 M51TA-1-AJ J5A210422-9-SAMP 01/20/2015 08:42			1.05g,in AmtRec: 1XLP;3X120MLP	1.05g	PATB5539 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	411 Alpha:		Beta:	
11 M51TC-1-AJ J5A210422-10-SAMP 01/20/2015 09:18			1.06g,in AmtRec: 1XLP;3X120MLP	1.06g	PATB5540 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	413 Alpha:		Beta:	
12 M51TD-1-AJ J5A210422-11-SAMP 01/20/2015 09:24			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5541 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	414 Alpha:		Beta:	
13 M51TE-1-AJ J5A210422-12-SAMP 01/20/2015 09:27			1.01g,in AmtRec: 1XLP;3X120MLP	1.01g	PATB5542 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	~~419~~ 1/26/15 JS 423 Alpha:		Beta:	
14 M51TF-1-AJ J5A210422-13-SAMP 01/20/2015 08:34			1.06g,in AmtRec: 1XLP;3X120MLP	1.06g	PATB5543 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	420 Alpha:		Beta:	

1/22/2015 5:26:50 AM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT

AnalyDueDate: 01/28/2015

Batch: 5021041 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M51TK-1-AA-B J5A210000-41-BLK 01/21/2015 15:38 pd			1.07g,in AmtRec:	1.07g #Containers: 1	PATB5544 01/21/15,pd 04/04/05,r				100 Scr:	421 Alpha:	0035 Beta:	11/26/15 JB	
16 M51TK-1-AC-C J5A210000-41-LCS 01/21/2015 15:38 pd			1.03g,in AmtRec:	1.03g #Containers: 1	PASC1064 12/16/14,pd 01/01/10,r				Scr:	422 Alpha:	Beta:		

1/22/2015 5:26:52 AM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT

AnalyDueDate: 01/28/2015

Batch: 5021041 **pCi/g**
SEQ Batch, Test: None

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

Comments: M51TK-BLK "Comments s-14-00242",s-14-00237,p-14-00984,p-14-00020,s-15-00005

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

M51RW1AJ-SAMP Constituent List:
  PU-238      RDL:1        pCi/g    LCL:       UCL:       RPD:       PU-239     RDL:1        pCi/g    LCL:70     UCL:130    RPD:35
  Pu-242      RDL:         pCi/g    LCL:20     UCL:105    RPD:35
M51TK1AA-BLK:
  PU-238      RDL:1        pCi/g    LCL:       UCL:       RPD:       PU-239     RDL:1        pCi/g    LCL:       UCL:       RPD:
  Pu-242      RDL:         pCi/g    LCL:20     UCL:105    RPD:35
M51TK1AC-LCS:
  PU-239      RDL:1        pCi/g    LCL:70     UCL:130    RPD:35     Pu-242     RDL:         pCi/g    LCL:20     UCL:105    RPD:35

M51RW1AJ-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TK1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TK1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

1/26/2015 3:21:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/26/2014, 1/31/2015, Batch: '5021041', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021041							
AC			Rev1C	**WoodT**	1/22/2015 6:22:03		
SC				campbellsc	IsBatched	1/21/2015 3:42:08 PM	ICOC_RADCALC v4.9.0
SC				WoodT	Prep1C	1/22/2015 6:22:03 AM	RL-PRP-003 REVISION 5
SC				GarciaA	Prep2C	1/22/2015 4:03:36 PM	RL-PRP-003 REVISION 5
SC				BolesT	Sep1C	1/23/2015 1:56:37 PM	RL-ALP-001 REVISION 5
SC				RichardsonB	Sep1C	1/26/2015 5:39:57 AM	RL-ALP-016 REV3
SC				BullJ	InCnt1	1/26/2015 7:56:31 AM	RL-CI-008 REVISION 4
SC				BullJ	CalcC	1/26/2015 12:43:37 PM	RL-CI-008 REVISION 4
SC				antonsonl	Rev1C	1/26/2015 3:20:40 PM	RL-DR-001 Rev 5
AC				**GarciaA**	1/22/2015 4:03:36 PM		
AC				**BolesT**	1/23/2015 1:56:37 PM		
AC				**RichardsonB**	1/26/2015 5:39:57		
AC				**BullJ**	1/26/2015 7:56:31		
AC				**BullJ**	1/26/2015 12:43:37		
AC				**antonsonl**	1/26/2015 3:20:40 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions

1/23/2015 8:50:15 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

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

PRIORITY

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021043 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AC J5A210422-1-SAMP 01/20/2015 08:20			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	UITC32309 09/09/14,pd 06/15/01,r #Containers: 4					401 Scr:	1900 Alpha:	1/26/15 SOD Beta:	
2 M51RX-1-AC J5A210422-2-SAMP 01/20/2015 08:28			1.02g,in AmtRec: 1XLP;3X120MLP	1.02g	UITC32310 09/09/14,pd 06/15/01,r #Containers: 4					403 Scr:	Alpha:	Beta:	
3 M51RX-1-AL-X J5A210422-2-DUP 01/20/2015 08:28			1.01g,in AmtRec: 1XLP;3X120MLP	1.01g	UITC32311 09/09/14,pd 06/15/01,r #Containers: 4					404 Scr:	Alpha:	Beta:	
4 M51R0-1-AC J5A210422-3-SAMP 01/20/2015 08:58			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	UITC32313 09/09/14,pd 06/15/01,r #Containers: 4					405 Scr:	Alpha:	Beta:	
5 M51R2-1-AC J5A210422-4-SAMP 01/20/2015 09:08			1.01g,in AmtRec: 1XLP;3X120MLP	1.01g	UITC32312 09/09/14,pd 06/15/01,r #Containers: 4					406 Scr:	Alpha:	Beta:	
6 M51R3-1-AC J5A210422-5-SAMP 01/20/2015 08:34			1.02g,in AmtRec: 1XLP;3X120MLP	1.02g	UITC32314 09/09/14,pd 06/15/01,r #Containers: 4					407 Scr:	Alpha:	Beta:	
7 M51R5-1-AC J5A210422-6-SAMP 01/20/2015 08:47			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	UITC32315 09/09/14,pd 06/15/01,r #Containers: 4					408 Scr:	Alpha:	Beta:	

1/23/2015 8:50:17 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021043 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AC			1.03g,in	1.03g	UITC32316								
J5A210422-7-SAMP					09/09/14,pd 06/15/01,r					409	1900	1/26/15 OD	
01/20/2015 08:53			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
9 M51R9-1-AC			0.99g,in	0.99g	UITC32317								
J5A210422-8-SAMP					09/09/14,pd 06/15/01,r					410			
01/20/2015 09:11			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
10 M51TA-1-AC			1.02g,in	1.02g	UITC32318								
J5A210422-9-SAMP					09/09/14,pd 06/15/01,r					411			
01/20/2015 08:42			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
11 M51TC-1-AC			1.01g,in	1.01g	UITC32319								
J5A210422-10-SAMP					09/09/14,pd 06/15/01,r					425			ANAL
01/20/2015 09:18			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
12 M51TD-1-AC			1.02g,in	1.02g	UITC32320								
J5A210422-11-SAMP					09/09/14,pd 06/15/01,r					426			
01/20/2015 09:24			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
13 M51TE-1-AC			1.01g,in	1.01g	UITC32417								
J5A210422-12-SAMP					12/17/14,pd 06/15/01,r					427			
01/20/2015 09:27			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
14 M51TF-1-AC			1.01g,in	1.01g	UITC32418								
J5A210422-13-SAMP					12/17/14,pd 06/15/01,r					428			
01/20/2015 08:34			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:

1/23/2015 8:50:18 AM

Sample Preparation/Analysis

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

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/28/2015

Batch: 5021043 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 **M51TM-1-AA-B**			1.03g,in	1.03g	UITC32419								
J5A210000-43-BLK					12/17/14,pd 06/15/01,r					429	1900	1/26/1500	
01/22/2015 09:46 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
16 **M51TM-1-AC-C**			1.01g,in	1.01g	UISH1918								
J5A210000-43-LCS					09/12/14,pd 06/15/01,r					430			
01/22/2015 09:47 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

1/23/2015 8:50:19 AM

Sample Preparation/Analysis

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

Balance Id:1120373922,,

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021043 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

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

Comments:

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

M51RW1AC-SAMP Constituent List:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:

M51TM1AA-BLK:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:

M51TM1AC-LCS:

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

M51RW1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51TM1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51TM1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/27/2015 8:59:37 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/27/2014, 2/1/2015, Batch: '5021043', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021043						
AC		**Rev1C**	**GarciaA**	1/23/2015 8:54:57		
SC			campbellsc	IsBatched	1/21/2015 3:42:15 PM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/23/2015 8:54:57 AM	RL-PRP-003 REVISION 5
SC			BolesT	Sep1C	1/23/2015 4:27:06 PM	RL-ALP-004 REVISION 6
SC			DawkinsO	InCnt1	1/26/2015 4:32:48 PM	RL-CI-008 REVISION 4
SC			DawkinsO	CalcC	1/26/2015 10:49:50 PM	RL-CI-008 REVISION 4
SC			antonsonl	Rev1C	1/27/2015 8:59:03 AM	RL-DR-001 Rev 5
AC			**BolesT**	1/23/2015 4:27:06 PM		
AC			**DawkinsO**	1/26/2015 4:32:48 PM		
AC			**DawkinsO**	1/26/2015 10:49:50		
AC			**antonsonl**	1/27/2015 8:59:03		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt:5

ICOCFractions

1/22/2015 5:26:52 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 01/28/2015 JP0895

Sep1 DT/Tm Tech:

Batch: 5021042 SOIL pCi/g

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5021041, 6ISO 5021041, 6ISO

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AK J5A210422-1-SAMP 01/20/2015 08:20			1.03g,in AmtRec: 1XLP;3X120MLP	1.03g	PATB5530 12/16/14,pd 01/01/10,r #Containers: 4				100 Scr:	401 Alpha:	1233	1/26/15 JB Beta:	
2 M51RW-1-AM-X J5A210422-1-DUP 01/20/2015 08:20			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	PATB5531 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	403 Alpha:		Beta:	
3 M51RX-1-AK J5A210422-2-SAMP 01/20/2015 08:28			0.97g,in AmtRec: 1XLP;3X120MLP	0.97g	PATB5532 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	404 Alpha:		Beta:	
4 M51R0-1-AK J5A210422-3-SAMP 01/20/2015 08:58			1.00g,in AmtRec: 1XLP;3X120MLP	1.00g	PATB5533 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	405 Alpha:		Beta:	
5 M51R2-1-AK J5A210422-4-SAMP 01/20/2015 09:08			0.98g,in AmtRec: 1XLP;3X120MLP	0.98g	PATB5534 12/16/14,pd 01/01/10,r #Containers: 4				Scr:	406 Alpha:		Beta:	
6 M51R3-1-AK J5A210422-5-SAMP 01/20/2015 08:34			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5535 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	407 Alpha:		Beta:	
7 M51R5-1-AK J5A210422-6-SAMP 01/20/2015 08:47			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5536 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	408 Alpha:		Beta:	

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7

pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.69

1/22/2015 5:26:56 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021042 SOIL pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: 5021041, 6ISO

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AK J5A210422-7-SAMP 01/20/2015 08:53			1.04g,in AmtRec: 1XLP;3X120MLP	1.04g	PATB5537 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	409 Alpha:	1233	1/26/15 JB Beta:	
9 M51R9-1-AK J5A210422-8-SAMP 01/20/2015 09:11			1.03g,in AmtRec: 1XLP;3X120MLP	1.03g	PATB5538 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	410 Alpha:		Beta:	
10 M51TA-1-AK J5A210422-9-SAMP 01/20/2015 08:42			1.05g,in AmtRec: 1XLP;3X120MLP	1.05g	PATB5539 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	411 Alpha:		Beta:	
11 M51TC-1-AK J5A210422-10-SAMP 01/20/2015 09:18			1.06g,in AmtRec: 1XLP;3X120MLP	1.06g	PATB5540 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	413 Alpha:		Beta:	
12 M51TD-1-AK J5A210422-11-SAMP 01/20/2015 09:24			0.99g,in AmtRec: 1XLP;3X120MLP	0.99g	PATB5541 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	414 Alpha:		Beta:	
13 M51TE-1-AK J5A210422-12-SAMP 01/20/2015 09:27			1.01g,in AmtRec: 1XLP;3X120MLP	1.01g	PATB5542 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	~~420~~ 1/26/15 JB 420 Alpha:		Beta:	
14 M51TF-1-AK J5A210422-13-SAMP 01/20/2015 08:34			1.06g,in AmtRec: 1XLP;3X120MLP	1.06g	PATB5543 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	421 Alpha:		Beta:	

1/22/2015 5:26:59 AM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT

AnalyDueDate: 01/28/2015

Batch: 5021042 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M51TL-1-AA-B J5A210000-42-BLK 01/21/2015 15:38 pd			1.07g,in AmtRec:	1.07g #Containers: 1	PATB5544 01/21/15,pd 04/04/05,r				Scr:	422	1233 Alpha:	1/22/15 dp Beta:	
16 M51TL-1-AC-C J5A210000-42-LCS 01/21/2015 15:38 pd			1.03g,in AmtRec:	1.03g #Containers: 1	PASC1064 12/16/14,pd 01/01/10,r				Scr:	423	Alpha:	Beta:	

1/22/2015 5:27:00 AM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021042 **pCi/g**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: WoodT

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

Comments: M51TL-BLK "Comments s-14-00242",s-14-00237,p-14-00984,p-14-00020,s-15-00005

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

M51RW1AK-SAMP Constituent List:

Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51TL1AA-BLK:

Am-241	RDL:1	pCi/g	LCL:	UCL:	RPD:	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51TL1AC-LCS:

Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51RW1AK-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51TL1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51TL1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/27/2015 8:32:28 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/27/2014, 2/1/2015, Batch: '5021042', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021042						
AC		Rev1C	**WoodT**	1/22/2015 6:22:10		
SC			campbellsc	IsBatched	1/21/2015 3:42:11 PM	ICOC_RADCALC v4.9.0
SC			WoodT	Prep1C	1/22/2015 6:22:10 AM	RL-PRP-003 REVISION 5
SC			BolesT	Sep1C	1/23/2015 1:56:20 PM	RL-ALP-001 REVISION 5
SC			RichardsonB	Sep1C	1/26/2015 5:39:44 AM	RL-ALP-016 REV3
SC			BullJ	InCnt1	1/26/2015 8:59:38 AM	RL-CI-008 REVISION 4
SC			BullJ	CalcC	1/26/2015 1:40:17 PM	RL-CI-008 REVISION 4
SC			DawkinsO	InCnt1	1/26/2015 4:32:40 PM	RL-CI-008 REVISION 4
SC			DawkinsO	CalcC	1/26/2015 10:49:55 PM	RL-CI-008 REVISION 4
SC			antonsonl	Rev1C	1/27/2015 8:32:16 AM	RL-DR-001 Rev 5
AC			**BolesT**	1/23/2015 1:56:20 PM		
AC			**RichardsonB**	1/26/2015 5:39:44		
AC			**BullJ**	1/26/2015 8:59:38		
AC			**BullJ**	1/26/2015 1:40:17 PM		
AC			**DawkinsO**	1/26/2015 4:32:40 PM		
AC			**DawkinsO**	1/26/2015 10:49:55		
AC			**antonsonl**	1/27/2015 8:32:16		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions

1/26/2015 3:09:27 PM

Sample Preparation/Analysis

PRIORITY

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

CH Sr-Total Prp PRP003, Sep GPC003
~~TH~~ Total Strontium by GPC (EC) GPC0 1/26/1500
5I CLIENT: HANFORD

AnalyDueDate: 01/28/2015

Balance Id:1120373922,B425712682
Pipet #: _____
Sep1 DT/Tm Tech: 01/26/2015 11:15,NeyensA
Sep2 DT/Tm Tech:
Prep Tech: NeyensA,GarciaA

Batch: 5021045 **SOIL** **pCi/g** **PM, Quote: RW2, 27038**

SEQ Batch, Test: None All Tests: 6ASO, 8ESX, 5021040 AXTA, 5021041 6ISO, 5021042 6ISX, 5021043 7SSR, 5021044 AFS4, 5021045 CHTH, 5022022 DWEA,

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AD J5A210422-1-SAMP 01/20/2015 08:20			2.02g,in	2.02g	SRTC3703 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			11.10mg	01/26/2015 11:15,s1	31A	1928	1/26/1500	Scr: Alpha: Beta:
2 M51RX-1-AD J5A210422-2-SAMP 01/20/2015 08:28			2.00g,in	2.00g	SRTC3704 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			11.20mg		31B			Scr: Alpha: Beta:
3 M51R0-1-AD J5A210422-3-SAMP 01/20/2015 08:58			1.99g,in	1.99g	SRTC3705 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			7.90mg		31C			Scr: Alpha: Beta:
4 M51R2-1-AD J5A210422-4-SAMP 01/20/2015 09:08			2.03g,in	2.03g	SRTC3706 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			10.50mg		31D			Scr: Alpha: Beta:
5 M51R3-1-AD J5A210422-5-SAMP 01/20/2015 08:34			2.02g,in	2.02g	SRTC3707 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			11.40mg		32B			Scr: Alpha: Beta:
6 M51R3-1-AL-X J5A210422-5-DUP 01/20/2015 08:34			2.03g,in	2.03g	SRTC3708 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			11.50mg		32C			Scr: Alpha: Beta:
7 M51R5-1-AD J5A210422-6-SAMP 01/20/2015 08:47			2.01g,in	2.01g	SRTC3709 01/12/15 AmtRec: 1XLP;3X120MLP #Containers: 4			11.80mg		32A			Scr: Alpha: Beta:

1/26/2015 3:09:28 PM

Sample Preparation/Analysis

Balance Id:1120373922,B425712682

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021045 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AD J5A210422-7-SAMP 01/20/2015 08:53			2.00g,in AmtRec: 1XLP;3X120MLP	2.00g	SRTC3710 01/12/15 #Containers: 4			12.00mg	Scr:	32D Alpha:	1928	1/26/1500 Beta:	
9 M51R9-1-AD J5A210422-8-SAMP 01/20/2015 09:11			2.02g,in AmtRec: 1XLP;3X120MLP	2.02g	SRTC3711 01/12/15 #Containers: 4			11.70mg	Scr:	32A Alpha:	2029	Beta:	
10 M51TA-1-AD J5A210422-9-SAMP 01/20/2015 08:42			1.99g,in AmtRec: 1XLP;3X120MLP	1.99g	SRTC3712 01/12/15 #Containers: 4			12.60mg	Scr:	32B Alpha:		Beta:	
11 M51TC-1-AD J5A210422-10-SAMP 01/20/2015 09:18			2.02g,in AmtRec: 1XLP;3X120MLP	2.02g	SRTC3713 01/12/15 #Containers: 4			11.20mg	Scr:	32C Alpha:		Beta:	
12 M51TD-1-AD J5A210422-11-SAMP 01/20/2015 09:24			1.99g,in AmtRec: 1XLP;3X120MLP	1.99g	SRTC3714 01/12/15 #Containers: 4			11.10mg	Scr:	32D Alpha:		Beta:	
13 M51TE-1-AD J5A210422-12-SAMP 01/20/2015 09:27			2.03g,in AmtRec: 1XLP;3X120MLP	2.03g	SRTC3715 01/12/15 #Containers: 4			11.10mg	Scr:	31A Alpha:		Beta:	
14 M51TF-1-AD J5A210422-13-SAMP 01/20/2015 08:34			2.04g,in AmtRec: 1XLP;3X120MLP	2.04g	SRTC3716 01/12/15 #Containers: 4			8.80mg	Scr:	31B Alpha:		Beta:	

1/26/2015 3:09:29 PM

Sample Preparation/Analysis

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

Balance Id:1120373922,B425712682

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/28/2015

Batch: 5021045 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 **M51TP-1-AA-B** J5A210000-45-BLK 01/22/2015 10:20 pd			2.02g,in	2.02g	SRTC3717 01/12/15			8.80mg		31C	2029	1/26/15	
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
16 **M51TP-1-AC-C** J5A210000-45-LCS 01/22/2015 10:21 pd			2.02g,in	2.02g	STSF0674 01/12/15			10.00mg		31D			
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

1/23/2015 8:49:38 AM

Sample Preparation/Analysis

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

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/28/2015

Batch: 5021045 pCi/g
SEQ Batch, Test: None

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

Comments:

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

M51RW1AD-SAMP Constituent List:

Sr-90	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

M51TP1AA-BLK:

Sr-90	RDL:1	pCi/g	LCL:	UCL:	RPD:

M51TP1AC-LCS:

Sr-90	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

M51RW1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M51TP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M51TP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/27/2015 9:09:51 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/27/2014, 2/1/2015, Batch: '5021045', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021045						
AC		**Rev1C**	**GarciaA**	1/23/2015 8:54:29		
SC			campbellsc	IsBatched	1/21/2015 3:42:20 PM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/23/2015 8:54:29 AM	RL-PRP-003 REVISION 5
SC			NeyensA	InPrep	1/26/2015 1:41:15 PM	RL-GPC-010 REVISION 4
SC			NeyensA	Prep1C	1/26/2015 1:42:09 PM	
SC			DawkinsO	InCnt1	1/26/2015 4:24:38 PM	RL-CI-006 REVISION 5
SC			DawkinsO	CalcC	1/26/2015 10:49:26 PM	RL-CI-006 REVISION 5
SC			McginnisT	Rev1C	1/27/2015 9:09:31 AM	RL-DR-001 Rev 5
AC			**NeyensA**	1/26/2015 1:41:15 PM		
AC			**NeyensA**	1/26/2015 1:42:09 PM		
AC			**DawkinsO**	1/26/2015 4:24:38 PM		
AC			**DawkinsO**	1/26/2015 10:49:26		
AC			**McginnisT**	1/27/2015 9:09:31		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions

1/22/2015 4:01:22 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

PRIORITY

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021040 SOIL pCi/g **PM, Quote: RW2, 27038**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6ASO, 8ESX, DWEA, 5021040 AXTA, 5021041 6ISO, 5021042 6ISX, 5021043 7SSR, 5021044 AFS4, 5021045 CHTH,

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AH J5A210422-1-SAMP 01/20/2015 08:20			391.60g,in	391.60g				S200	200	G7	1032	1/22/15 JM	
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
2 M51RX-1-AH J5A210422-2-SAMP 01/20/2015 08:28			410.50g,in	410.50g						G10			
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
3 M51R0-1-AH J5A210422-3-SAMP 01/20/2015 08:58			397.90g,in	397.90g						G11			
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
4 M51R2-1-AH J5A210422-4-SAMP 01/20/2015 09:08			371.40g,in	371.40g						G15			
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
5 M51R3-1-AH J5A210422-5-SAMP 01/20/2015 08:34			398.80g,in	398.80g						G16			
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
6 M51R5-1-AH J5A210422-6-SAMP 01/20/2015 08:47			418.00g,in	418.00g						G17			
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:
7 M51R5-1-AL-X J5A210422-6-DUP 01/20/2015 08:47			417.70g,in	417.70g						G18	—	—	
			AmtRec: 1XLP;3X120MLP	#Containers: 4					Scr:	Alpha:			Beta:

1/22/2015 4:01:29 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: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021040 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AH			399.70g,in	399.70g				S200	200	69	1032	1/22/15	
J5A210422-7-SAMP													
01/20/2015 08:53			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
9 M51R9-1-AH			390.60g,in	390.60g						67	1359	1/22/15	
J5A210422-8-SAMP													
01/20/2015 09:11			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
10 M51TA-1-AH			394.20g,in	394.20g						60			
J5A210422-9-SAMP													
01/20/2015 08:42			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
11 M51TC-1-AH			368.80g,in	368.80g						61			
J5A210422-10-SAMP													
01/20/2015 09:18			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
12 M51TD-1-AH			381.10g,in	381.10g						65			
J5A210422-11-SAMP													
01/20/2015 09:24			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
13 M51TE-1-AH			353.20g,in	353.20g						64			
J5A210422-12-SAMP													
01/20/2015 09:27			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
14 M51TF-1-AH			382.30g,in	382.30g						67			
J5A210422-13-SAMP													
01/20/2015 08:34			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14 Prep_SamplePrep v4.8.69

1/22/2015 4:01:31 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: WoodT

AnalyDueDate: 01/28/2015

Batch: 5021040 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M51TJ-1-AA-B J5A210000-40-BLK 01/21/2015 15:38 pd			348.00g,in AmtRec:	348.00g #Containers: 1	OSBK			S200	200	618	1359	1/22/15	
										Scr:	Alpha:		Beta:
16 M51TJ-1-AC-C J5A210000-40-LCS 01/21/2015 15:38 pd			350.10g,in AmtRec:	350.10g #Containers: 1	QC20009 08/04/09,pd 09/01/09,r					619			
										Scr:	Alpha:		Beta:

1/22/2015 4:01:32 AM

Sample Preparation/Analysis

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

Balance Id:1120421763,,

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021040 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: WoodT

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

Comments:

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

M51RW1AH-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:
K-40	RDL:	pCi/g	LCL:	UCL:	RPD:						

M51TJ1AA-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:
K-40	RDL:	pCi/g	LCL:	UCL:	RPD:						

M51TJ1AC-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						

M51RW1AH-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M51TJ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M51TJ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/23/2015 11:02:18 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/23/2014, 1/28/2015, Batch: '5021040', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021040						
AC		**Rev1C**	**WoodT**	1/22/2015 4:01:27		
SC			campbellsc	IsBatched	1/21/2015 3:42:05 PM	ICOC_RADCALC v4.9.0
SC			WoodT	Prep1C	1/22/2015 4:01:27 AM	RL-PRP-003 REVISION 5
SC			WoodT	Prep2C	1/22/2015 4:01:41 AM	RL-GAM-001 REVISION 5
SC			BullJ	InCnt1	1/22/2015 6:22:31 AM	RL-CI-007 REVISION 3
SC			DawkinsO	CalcC	1/22/2015 11:17:09 PM	RL-CI-007 REVISION 3
SC			antonsonl	Rev1C	1/23/2015 11:00:11 AM	RL-DR-001 Rev 5
AC			**WoodT**	1/22/2015 4:01:41		
AC			**BullJ**	1/22/2015 6:22:31		
AC			**DawkinsO**	1/22/2015 11:17:09		
AC			**antonsonl**	1/23/2015 11:00:11		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions

1/22/2015 5:04:47 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

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

PRIORITY

Pipet #: _____

AnalyDueDate: 01/28/2015 JP0895

Sep1 DT/Tm Tech:

Batch: 5021044 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6ASO, 8ESX, DWEA, 5021040 AXTA, 5021041 6ISO, 5021042 6ISX, 5021043 7SSR, 5021044 AFS4, 5021045 CHTH,

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AE J5A210422-1-SAMP 01/20/2015 08:20			0.50g,in AmtRec: 1XLP;3X120MLP	0.50g	NITA13411 12/17/14 #Containers: 4				20 Scr:		Alpha:		Beta:
2 M51RX-1-AE J5A210422-2-SAMP 01/20/2015 08:28			0.48g,in AmtRec: 1XLP;3X120MLP	0.48g	NITA13412 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
3 M51R0-1-AE J5A210422-3-SAMP 01/20/2015 08:58			0.51g,in AmtRec: 1XLP;3X120MLP	0.51g	NITA13413 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
4 M51R2-1-AE J5A210422-4-SAMP 01/20/2015 09:08			0.49g,in AmtRec: 1XLP;3X120MLP	0.49g	NITA13414 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
5 M51R2-1-AL-X J5A210422-4-DUP 01/20/2015 09:08			0.52g,in AmtRec: 1XLP;3X120MLP	0.52g	NITA13415 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
6 M51R3-1-AE J5A210422-5-SAMP 01/20/2015 08:34			0.49g,in AmtRec: 1XLP;3X120MLP	0.49g	NITA13416 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
7 M51R5-1-AE J5A210422-6-SAMP 01/20/2015 08:47			0.47g,in AmtRec: 1XLP;3X120MLP	0.47g	NITA13417 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:

1/22/2015 5:04:49 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

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

Pipet #: _____

AnalyDueDate: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5021044 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R7-1-AE J5A210422-7-SAMP 01/20/2015 08:53			0.49g,in AmtRec: 1XLP;3X120MLP	0.49g	NITA13418 12/17/14 #Containers: 4				20 Scr:		Alpha:		Beta:
9 M51R9-1-AE J5A210422-8-SAMP 01/20/2015 09:11			0.55g,in AmtRec: 1XLP;3X120MLP	0.55g	NITA13419 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
10 M51TA-1-AE J5A210422-9-SAMP 01/20/2015 08:42			0.48g,in AmtRec: 1XLP;3X120MLP	0.48g	NITA13420 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
11 M51TC-1-AE J5A210422-10-SAMP 01/20/2015 09:18			0.53g,in AmtRec: 1XLP;3X120MLP	0.53g	NITA13421 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
12 M51TD-1-AE J5A210422-11-SAMP 01/20/2015 09:24			0.51g,in AmtRec: 1XLP;3X120MLP	0.51g	NITA13422 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
13 M51TE-1-AE J5A210422-12-SAMP 01/20/2015 09:27			0.50g,in AmtRec: 1XLP;3X120MLP	0.50g	NITA13423 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:
14 M51TF-1-AE J5A210422-13-SAMP 01/20/2015 08:34			0.48g,in AmtRec: 1XLP;3X120MLP	0.48g	NITA13424 12/17/14 #Containers: 4				Scr:		Alpha:		Beta:

1/22/2015 5:04:51 AM

Sample Preparation/Analysis

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

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WoodT

AnalyDueDate: 01/28/2015

Batch: 5021044 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M51TN-1-AA-B J5A210000-44-BLK 01/21/2015 15:38 pd			0.54g,in AmtRec:	0.54g #Containers: 1	NITA13425 12/17/14				20 Scr:		Alpha:		Beta:
16 M51TN-1-AC-C J5A210000-44-LCS 01/21/2015 15:38 pd			0.49g,in AmtRec:	0.49g #Containers: 1	NISA2167 11/12/14				Scr:		Alpha:		Beta:
17 M51TN-1-AD-BN J5A210000-44-IBLK 01/21/2015 15:38 pd			AmtRec:	#Containers: 1					Scr:		Alpha:		Beta:
18 M51TN-1-AE-BN J5A210000-44-IBLK 01/21/2015 15:38 pd			AmtRec:	#Containers: 1					Scr:		Alpha:		Beta:

1/22/2015 5:04:52 AM

Sample Preparation/Analysis

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

Balance Id:,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 01/28/2015

Batch: 5021044 **pCi/g**
SEQ Batch, Test: None

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

Comments: M51TN-BLK "Comments s-14-00242",s-14-00237,p-14-00984,p-14-00020,s-15-00005

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

M51RW1AE-SAMP Constituent List:
  Ni-63       RDL:30          pCi/g     LCL:70      UCL:130     RPD:35
M51TN1AA-BLK:
  Ni-63       RDL:30          pCi/g     LCL:        UCL:        RPD:
M51TN1AC-LCS:
  Ni-63       RDL:30          pCi/g     LCL:70      UCL:130     RPD:35
M51TN1AD-IBLK:
  Ni-63       RDL:30          pCi/g     LCL:        UCL:        RPD:
M51TN1AE-IBLK:
  Ni-63       RDL:30          pCi/g     LCL:        UCL:        RPD:

M51RW1AE-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TN1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TN1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TN1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M51TN1AE-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

1/27/2015 1:32:50 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/27/2014, 2/1/2015, Batch: '5021044', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5021044						
AC		**Rev1C**	**WoodT**	1/22/2015 6:21:28		
SC			campbellsc	IsBatched	1/21/2015 3:42:17 PM	ICOC_RADCALC v4.9.0
SC			WoodT	Prep1C	1/22/2015 6:21:28 AM	RL-PRP-003 REVISION 5
SC			GarciaA	Prep2C	1/22/2015 4:05:41 PM	RL-PRP-003 REVISION 5
SC			CarneyA	InSep1	1/23/2015 9:07:02 AM	ST-RC-0055 REVISION 1
SC			CarneyA	InCnt1	1/26/2015 1:32:26 PM	RL-CI-005 REVISION 4
SC			BullJ	CalcC	1/27/2015 12:15:49 PM	RL-CI-005 REVISION 3
SC			antonsonl	Rev1C	1/27/2015 1:32:38 PM	RL-DR-001 Rev 5
AC			**GarciaA**	1/22/2015 4:05:41 PM		
AC			**CarneyA**	1/23/2015 9:07:02		
AC			**CarneyA**	1/26/2015 1:32:26 PM		
AC			**CarneyA**	1/26/2015 2:17:38 PM		
AC			**BullJ**	1/27/2015 12:15:49		
AC			**antonsonl**	1/27/2015 1:32:38 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions

1/22/2015 12:12:14 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:

Prep Tech:

AnalyDueDate: 01/28/2015

Batch: 5022022 SOIL mg/kg **PM, Quote: RW2, 27038**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M51RW-1-AA													
J5A210422-1-SAMP													
01/20/2015 08:20			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
2 M51RW-1-AN-S													
J5A210422-1-MS													
01/20/2015 08:20			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
3 M51RW-1-AP-X													
J5A210422-1-DUP													
01/20/2015 08:20			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
4 M51RW-1-AQ-S													
J5A210422-1-MS													
01/20/2015 08:20			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
5 M51RX-1-AA													
J5A210422-2-SAMP													
01/20/2015 08:28			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
6 M51R0-1-AA													
J5A210422-3-SAMP													
01/20/2015 08:58			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
7 M51R2-1-AA													
J5A210422-4-SAMP													
01/20/2015 09:08			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:

1/22/2015 12:12:17 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: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5022022 SOIL mg/kg PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M51R3-1-AA J5A210422-5-SAMP 01/20/2015 08:34				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
9 M51R5-1-AA J5A210422-6-SAMP 01/20/2015 08:47				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
10 M51R7-1-AA J5A210422-7-SAMP 01/20/2015 08:53				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
11 M51R9-1-AA J5A210422-8-SAMP 01/20/2015 09:11				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
12 M51TA-1-AA J5A210422-9-SAMP 01/20/2015 08:42				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
13 M51TC-1-AA J5A210422-10-SAMP 01/20/2015 09:18				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:
14 M51TD-1-AA J5A210422-11-SAMP 01/20/2015 09:24				AmtRec: 1XLP;3X120MLP	#Containers: 4				Scr:		Alpha:		Beta:

1/22/2015 12:12:18 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: 01/28/2015

Sep1 DT/Tm Tech:

Batch: 5022022 SOIL mg/kg
SEQ Batch, Test: None

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

Prep Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M51TE-1-AA													
J5A210422-12-SAMP													
01/20/2015 09:27			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
16 M51TF-1-AA													
J5A210422-13-SAMP													
01/20/2015 08:34			AmtRec: 1XLP;3X120MLP		#Containers: 4				Scr:		Alpha:		Beta:
17 M51W9-1-AA-B													
J5A220000-22-BLK													
01/22/2015 12:12 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:
18 M51W9-1-AC-C													
J5A220000-22-LCS													
01/22/2015 12:12 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:

1/22/2015 12:12:19 PM

Sample Preparation/Analysis

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

Balance Id:,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 01/28/2015

Batch: 5022022 **mg/kg**
SEQ Batch, Test: None

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

Comments:

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

M51RW1AA-SAMP Constituent List:
HEXCHROME RDL:.1548 mg/kg LCL:80 UCL:120 RPD:20 HXCR RDL:.1548 mg/kg LCL:80 UCL:120 RPD:20

M51RW1AN-MS Constituent List:

M51RW1AQ-MS:

M51W91AA-BLK:

M51W91AC-LCS:

M51RW1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51RW1AN-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51RW1AQ-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51W91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51W91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

ANALYTICAL REPORT

Job Number: 280-64647-1

SDG Number: JP0895

Job Description: SAF# RC-075

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Senior Project Manager
1/28/2015 4:25 PM

Kae E Yoder, Senior Project Manager
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0190
kae.yoder@testamericainc.com
01/28/2015

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 4025.

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

Table of Contents

Cover Title Page 1
Report Narrative 3
Data Qualifiers 5
Sample Summary 6
Method Summary 7
Method / Analyst Summary 8
Sample Results 9
Sample Datasheets 10
QC Results 60
Surrogate Recovery Report 61
Qc Reports 62
Qc Association Summary 89
Client Chain of Custody 97
Sample Receipt Checklist 100

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Job Number: 280-64647-1

SDG #: JP0895
SAF#: RC-075

Date SDG Closed: January 22, 2015
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V321	280-64647-1	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V322	280-64647-2	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V323	280-64647-3	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V324	280-64647-4	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V325	280-64647-5	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V326	280-64647-6	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V327	280-64647-7	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V328	280-64647-8	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V329	280-64647-9	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V330	280-64647-10	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V331	280-64647-11	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V332	280-64647-12	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V333	280-64647-13	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2

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 1/22/2015 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1º C.

GC SEMIVOLATILES - SW846 8082 - PCBs
The laboratory noted that a Sulfuric Acid clean-up was performed on the samples presented in this report to reduce matrix interferences.

Sample J1V327 contained a combination of Aroclor 1254 and Aroclor 1260 with insufficient separation to quantify individually. The sample has been quantified and reported as the predominant Aroclor.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. In some cases, due to matrix interference, samples required a 5X dilution prior to the analysis of several 6010B elements. The reporting limits have been adjusted relative to the dilution required. The laboratory noted that analysis at less diluted concentrations could not be performed while maintaining the integrity of the analytical system.

Low levels of Cobalt, Barium, Calcium, Magnesium, Manganese and Mercury are present in the method blanks associated with batches 280-261324 and 280-261430, respectively. Because the concentrations in the method blanks are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary.

Iron, a common laboratory contaminant, is present at a level greater than the reporting limit in the method blank associated with batch 280-261324. As the associated sample amounts are twenty times greater than the method blank concentration, corrective action is deemed unnecessary.

Silicon was recovered outside the control limits, biased low, in the LCS associated with batch 280-261324 and in the Matrix Spike performed on sample J1V321 in batch 280-261324. The associated sample results have been flagged “N”. Silicon has been identified as a poor performing element when analyzed using this method and has a history of reacting inconsistently; therefore, corrective action is not initiated. Data are reported as is.

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 J1V321; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1V321 exhibited percent recoveries outside the control limits for Arsenic, Selenium and Boron, and the associated sample results have been flagged “N”. There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The duplicate analysis of sample J1V321 exhibited RPD data outside the control limits for Cadmium, Barium and Lead, 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.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE NITRITE as N

No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

Sulfate is present in the method blank associated with batch 280-261403 at 3.36 mg/kg, which is greater than half the project specific reporting limit (PSRL) of 5 mg/kg. TestAmerica’s practical quantitation limit (PQL) for Sulfate is 50 mg/kg. The laboratory cannot maintain system cleanliness at this low level; therefore, corrective action is not initiated. It can be noted that the concentration found in the method blank is less than half of the laboratory standard PQL.

The Fluoride duplicate analysis of sample J1V333 exceeded the RPD limit, and the associated sample result has been flagged “M”. There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Analyzed for but not detected.
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 greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	M	Sample duplicate precision not met.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-64647-1	J1V321	Solid	01/20/2015 0820	01/22/2015 0925
280-64647-2	J1V322	Solid	01/20/2015 0828	01/22/2015 0925
280-64647-3	J1V323	Solid	01/20/2015 0858	01/22/2015 0925
280-64647-4	J1V324	Solid	01/20/2015 0908	01/22/2015 0925
280-64647-5	J1V325	Solid	01/20/2015 0834	01/22/2015 0925
280-64647-6	J1V326	Solid	01/20/2015 0847	01/22/2015 0925
280-64647-7	J1V327	Solid	01/20/2015 0853	01/22/2015 0925
280-64647-8	J1V328	Solid	01/20/2015 0911	01/22/2015 0925
280-64647-9	J1V329	Solid	01/20/2015 0842	01/22/2015 0925
280-64647-10	J1V330	Solid	01/20/2015 0918	01/22/2015 0925
280-64647-11	J1V331	Solid	01/20/2015 0924	01/22/2015 0925
280-64647-12	J1V332	Solid	01/20/2015 0927	01/22/2015 0925
280-64647-13	J1V333	Solid	01/20/2015 0834	01/22/2015 0925

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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

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: 280-64647-1
Sdg Number: JP0895

Method	Analyst	Analyst ID
SW846 8082	Jackson, Todd D	TDJ
SW846 6010B	Broander, Laura L	LLB
SW846 6010B	Scott, Samantha J	SJS
SW846 7471A	Whyte, Whitney A	WAW
MCAWW 353.2	Schultz, Cassandra M	CMS
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Schwemin, Andrew J	AJS

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V321**

Lab Sample ID: 280-64647-1
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0820
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1504			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.0	U	8.0	16
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.6	U	4.6	10
Aroclor 1248		4.6	U	4.6	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	73		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V322**

Lab Sample ID: 280-64647-2
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/20/2015 0828
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1527			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	11
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	11
Aroclor 1242		4.9	U	4.9	11
Aroclor 1248		4.9	U	4.9	11
Aroclor 1254		2.7	U	2.7	11
Aroclor 1260		2.7	U	2.7	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	70		59 - 130
Tetrachloro-m-xylene	73		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V323**

Lab Sample ID: 280-64647-3
Client Matrix: Solid
% Moisture: 5.8

Date Sampled: 01/20/2015 0858
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1550			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	71		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V324**

Lab Sample ID: 280-64647-4
Client Matrix: Solid
% Moisture: 3.3

Date Sampled: 01/20/2015 0908
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1724			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	75		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V325**

Lab Sample ID: 280-64647-5
Client Matrix: Solid
% Moisture: 6.6

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.0 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1747			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		3.0	U	3.0	11
Aroclor 1221		8.6	U	8.6	18
Aroclor 1232		2.1	U	2.1	11
Aroclor 1242		5.0	U	5.0	11
Aroclor 1248		5.0	U	5.0	11
Aroclor 1254		2.8	U	2.8	11
Aroclor 1260		2.8	U	2.8	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	73		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V326**

Lab Sample ID: 280-64647-6
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 01/20/2015 0847
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1810			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	11
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	11
Aroclor 1242		4.9	U	4.9	11
Aroclor 1248		4.9	U	4.9	11
Aroclor 1254		2.7	U	2.7	11
Aroclor 1260		2.7	U	2.7	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	71		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V327**

Lab Sample ID: 280-64647-7
Client Matrix: Solid
% Moisture: 7.8

Date Sampled: 01/20/2015 0853
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1834			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		88		2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	64		59 - 130
Tetrachloro-m-xylene	80		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V328**

Lab Sample ID: 280-64647-8
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/20/2015 0911
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.9 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1857			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	62		59 - 130
Tetrachloro-m-xylene	72		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V329**

Lab Sample ID: 280-64647-9
Client Matrix: Solid
% Moisture: 3.1

Date Sampled: 01/20/2015 0842
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	31.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1920			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.9
Aroclor 1221		7.9	U	7.9	16
Aroclor 1232		2.0	U	2.0	9.9
Aroclor 1242		4.6	U	4.6	9.9
Aroclor 1248		4.6	U	4.6	9.9
Aroclor 1254		2.6	U	2.6	9.9
Aroclor 1260		2.6	U	2.6	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	65		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V330**

Lab Sample ID: 280-64647-10
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 01/20/2015 0918
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1943			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	68		59 - 130
Tetrachloro-m-xylene	71		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V331**

Lab Sample ID: 280-64647-11
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 01/20/2015 0924
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	32.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2006			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.5
Aroclor 1221		7.6	U	7.6	16
Aroclor 1232		1.9	U	1.9	9.5
Aroclor 1242		4.4	U	4.4	9.5
Aroclor 1248		4.4	U	4.4	9.5
Aroclor 1254		2.5	U	2.5	9.5
Aroclor 1260		2.5	U	2.5	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	70		59 - 130
Tetrachloro-m-xylene	71		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V332**

Lab Sample ID: 280-64647-12
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0927
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2030			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	71		59 - 130
Tetrachloro-m-xylene	74		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V333**

Lab Sample ID: 280-64647-13
Client Matrix: Solid
% Moisture: 6.5

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261331	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2053			Injection Volume:	1 uL
Prep Date:	01/22/2015 1920			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	69		59 - 130
Tetrachloro-m-xylene	72		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V321**

Lab Sample ID: 280-64647-1
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0820
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/23/2015 1713			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.4	N	0.64	0.97
Cadmium		0.14	B M	0.040	0.19
Chromium		4.9		0.056	0.19
Molybdenum		0.25	B	0.25	1.9
Nickel		9.5		0.12	3.9
Selenium		0.84	U N	0.84	0.97

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/26/2015 1339			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.2		0.37	0.58
Beryllium		0.37		0.032	0.19
Boron		0.95	U N	0.95	1.9
Silver		0.16	U	0.16	0.19
Sodium		452		57.5	117

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/27/2015 1310			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		660		39.9	292

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/26/2015 1237			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5090		7.5	24.3
Barium		54.8	M	0.37	2.4
Calcium		6040		68.7	243
Cobalt		13.1		0.49	4.9
Copper		17.0		1.1	4.9
Iron		29700		18.5	24.3
Lead		4.6	M	1.3	2.4

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V321**

Lab Sample ID: 280-64647-1
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0820
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4880		18.0	97.4
Manganese		331		0.49	4.9
Silicon		123	N	27.6	48.7
Vanadium		80.9		0.46	9.7
Zinc		52.1		1.9	4.9

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/23/2015 1641			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0095	B C	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V322**

Lab Sample ID: 280-64647-2
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/20/2015 0828
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/23/2015 1723			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.9		0.67	1.0
Cadmium		0.11	B	0.042	0.20
Chromium		5.2		0.059	0.20
Cobalt		8.4		0.10	1.0
Lead		2.9		0.27	0.51
Molybdenum		0.26	U	0.26	2.0
Nickel		7.6		0.12	4.1
Selenium		0.87	U	0.87	1.0

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/26/2015 1349			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.1		0.39	0.61
Beryllium		0.37		0.034	0.20
Boron		1.0	U	1.0	2.0
Silver		0.16	U	0.16	0.20
Sodium		329		59.9	122

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/27/2015 1321			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		775		41.6	305

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/26/2015 1247			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5700		7.9	25.4
Barium		56.3		0.39	2.5
Calcium		7400		71.6	254
Copper		15.2		1.1	5.1
Iron		27100		19.3	25.4

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V322**

Lab Sample ID: 280-64647-2
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/20/2015 0828
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4790		18.8	102
Manganese		328		0.51	5.1
Silicon		142	N	28.7	50.8
Vanadium		68.3		0.48	10.2
Zinc		48.6		2.0	5.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	01/23/2015 1648			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.010	B C	0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V323**

Lab Sample ID: 280-64647-3
Client Matrix: Solid
% Moisture: 5.8

Date Sampled: 01/20/2015 0858
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/23/2015 1726			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.2		0.69	1.1
Cadmium		0.11	B	0.043	0.21
Chromium		6.8		0.061	0.21
Cobalt		8.7		0.11	1.1
Lead		2.8		0.28	0.53
Molybdenum		0.27	U	0.27	2.1
Nickel		12.5		0.13	4.2
Selenium		0.90	U	0.90	1.1

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1352			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.0		0.40	0.63
Beryllium		0.34		0.035	0.21
Boron		1.0	U	1.0	2.1
Silver		0.17	U	0.17	0.21
Sodium		283		62.0	126

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1324			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		813		43.1	315

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1250			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6070		8.1	26.3
Barium		59.9		0.40	2.6
Calcium		6910		74.1	263
Copper		16.1		1.1	5.3
Iron		28000		20.0	26.3

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V323**

Lab Sample ID: 280-64647-3
Client Matrix: Solid
% Moisture: 5.8

Date Sampled: 01/20/2015 0858
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		5300		19.5	105
Manganese		338		0.53	5.3
Silicon		177	N	29.8	52.6
Vanadium		70.2		0.49	10.5
Zinc		48.9		2.1	5.3

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	01/23/2015 1651			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0099	B C	0.0054	0.017

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V324**

Lab Sample ID: 280-64647-4
Client Matrix: Solid
% Moisture: 3.3

Date Sampled: 01/20/2015 0908
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	01/23/2015 1728			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.2		0.62	0.93
Cadmium		0.11	B	0.038	0.19
Chromium		3.9		0.054	0.19
Molybdenum		0.24	U	0.24	1.9
Nickel		7.9		0.11	3.7
Selenium		0.80	U	0.80	0.93

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	01/26/2015 1354			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.91	U	0.91	1.9
Silver		0.15	U	0.15	0.19
Sodium		313		55.0	112

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.11 g
Analysis Date:	01/27/2015 1326			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		504		38.2	280

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.11 g
Analysis Date:	01/26/2015 1253			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4250		7.2	23.3
Antimony		1.8	B	1.8	2.8
Barium		57.0		0.35	2.3
Beryllium		0.41	B	0.15	0.93
Calcium		5860		65.7	233
Cobalt		13.2		0.47	4.7
Copper		15.6		1.0	4.7
Iron		30800		17.7	23.3
Lead		2.0	B	1.3	2.3

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V324**

Lab Sample ID: 280-64647-4
Client Matrix: Solid
% Moisture: 3.3

Date Sampled: 01/20/2015 0908
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4610		17.2	93.2
Manganese		342		0.47	4.7
Silicon		101	N	26.4	46.6
Vanadium		83.4		0.44	9.3
Zinc		54.0		1.9	4.7

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	01/23/2015 1653			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0088	B C	0.0060	0.019

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V325**

Lab Sample ID: 280-64647-5
Client Matrix: Solid
% Moisture: 6.6

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	01/23/2015 1731			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.1		0.60	0.91
Cadmium		0.13	B	0.038	0.18
Chromium		10.2		0.053	0.18
Cobalt		7.5		0.091	0.91
Lead		4.2		0.25	0.46
Molybdenum		0.24	U	0.24	1.8
Nickel		10.6		0.11	3.7
Selenium		0.79	U	0.79	0.91

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	01/26/2015 1357			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.69		0.35	0.55
Beryllium		0.42		0.030	0.18
Boron		0.90	B	0.90	1.8
Silver		0.15	U	0.15	0.18
Sodium		209		54.0	110

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.17 g
Analysis Date:	01/26/2015 1255			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8940		7.1	22.9
Barium		84.2		0.35	2.3
Calcium		4730		64.5	229
Copper		15.0		0.99	4.6
Iron		24300		17.4	22.9
Magnesium		4670		16.9	91.5
Manganese		358		0.46	4.6
Potassium		1550		188	1370
Silicon		219	N	25.9	45.7
Vanadium		55.3		0.43	9.1
Zinc		49.0		1.8	4.6

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V325**

Lab Sample ID: 280-64647-5
Client Matrix: Solid
% Moisture: 6.6

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	01/23/2015 1655			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

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

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V326**

Lab Sample ID: 280-64647-6
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 01/20/2015 0847
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	01/23/2015 1744			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.0		0.71	1.1
Cadmium		0.13	B	0.044	0.22
Chromium		9.6		0.062	0.22
Cobalt		7.1		0.11	1.1
Lead		3.4		0.29	0.54
Molybdenum		0.28	U	0.28	2.2
Nickel		10		0.13	4.3
Selenium		0.92	U	0.92	1.1

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	01/26/2015 1308			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7160		1.7	5.4
Antimony		0.96		0.41	0.65
Barium		66.7		0.082	0.54
Beryllium		0.37		0.035	0.22
Boron		1.1	U	1.1	2.2
Calcium		8340		15.2	53.8
Copper		15.0		0.23	1.1
Iron		21100		4.1	5.4
Magnesium		4240		4.0	21.5
Manganese		293		0.11	1.1
Potassium		1200		44.1	323
Silicon		189	N	6.1	10.8
Silver		0.17	U	0.17	0.22
Sodium		204		63.4	129
Vanadium		51.5		0.10	2.2
Zinc		38.0		0.43	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	01/23/2015 1658			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B C	0.0063	0.019

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V327**

Lab Sample ID: 280-64647-7
Client Matrix: Solid
% Moisture: 7.8

Date Sampled: 01/20/2015 0853
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/23/2015 1747			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.6		0.64	0.97
Cadmium		0.15	B	0.040	0.19
Chromium		11.3		0.056	0.19
Cobalt		7.6		0.097	0.97
Lead		5.6		0.26	0.48
Molybdenum		0.25	U	0.25	1.9
Nickel		9.8		0.12	3.9
Selenium		0.83	U	0.83	0.97

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/26/2015 1410			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.2		0.37	0.58
Beryllium		0.38		0.032	0.19
Boron		0.95	U	0.95	1.9
Silver		0.15	U	0.15	0.19
Sodium		288		57.1	116

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/27/2015 1339			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		925		39.7	291

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/26/2015 1311			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7180		7.5	24.2
Barium		67.2		0.37	2.4
Calcium		9820		68.3	242
Copper		17.5		1.1	4.8
Iron		25000		18.4	24.2

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V327**

Lab Sample ID: 280-64647-7
Client Matrix: Solid
% Moisture: 7.8

Date Sampled: 01/20/2015 0853
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4950		17.9	96.9
Manganese		329		0.48	4.8
Silicon		173	N	27.4	48.4
Vanadium		64.2		0.46	9.7
Zinc		56.9		1.9	4.8

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	01/23/2015 1705			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.015	B C	0.0056	0.017

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V328**

Lab Sample ID: 280-64647-8
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/20/2015 0911
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	01/23/2015 1749			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.4		0.65	0.99
Cadmium		0.11	B	0.040	0.20
Chromium		6.2		0.057	0.20
Cobalt		8.1		0.099	0.99
Lead		2.9		0.27	0.49
Molybdenum		0.26	U	0.26	2.0
Nickel		9.9		0.12	4.0
Selenium		0.85	U	0.85	0.99

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	01/26/2015 1412			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.88		0.38	0.59
Beryllium		0.35		0.033	0.20
Boron		0.97	U	0.97	2.0
Silver		0.16	U	0.16	0.20
Sodium		268		58.3	119

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	01/27/2015 1342			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		870		40.5	296

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.09 g
Analysis Date:	01/26/2015 1313			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6470		7.7	24.7
Barium		66.7		0.38	2.5
Calcium		9590		69.6	247
Copper		17.1		1.1	4.9
Iron		25900		18.8	24.7

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V328**

Lab Sample ID: 280-64647-8
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/20/2015 0911
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4650		18.3	98.8
Manganese		333		0.49	4.9
Silicon		150	N	28.0	49.4
Vanadium		64.0		0.46	9.9
Zinc		46.6		2.0	4.9

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	01/23/2015 1707			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.011	B C	0.0060	0.018

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V329**

Lab Sample ID: 280-64647-9
Client Matrix: Solid
% Moisture: 3.1

Date Sampled: 01/20/2015 0842
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/23/2015 1752			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.1		0.61	0.92
Cadmium		0.11	B	0.038	0.18
Chromium		4.2		0.053	0.18
Cobalt		7.3		0.092	0.92
Lead		1.9		0.25	0.46
Molybdenum		0.24	U	0.24	1.8
Nickel		6.9		0.11	3.7
Selenium		0.79	U	0.79	0.92

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/26/2015 1415			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.86		0.35	0.55
Beryllium		0.31		0.030	0.18
Boron		0.90	U	0.90	1.8
Silver		0.15	U	0.15	0.18
Sodium		354		54.4	111

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/27/2015 1345			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		550		37.8	276

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.12 g
Analysis Date:	01/26/2015 1316			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5300		7.1	23.0
Barium		65.1		0.35	2.3
Calcium		6400		65.0	230
Copper		16.7		1.0	4.6
Iron		24900		17.5	23.0

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V329**

Lab Sample ID: 280-64647-9
Client Matrix: Solid
% Moisture: 3.1

Date Sampled: 01/20/2015 0842
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4070		17.0	92.1
Manganese		280		0.46	4.6
Silicon		133	N	26.1	46.1
Vanadium		64.2		0.43	9.2
Zinc		45.5		1.8	4.6

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	01/23/2015 1709			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.010	B C	0.0065	0.020

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V330**

Lab Sample ID: 280-64647-10
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 01/20/2015 0918
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	01/23/2015 1755			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.1		0.67	1.0
Cadmium		0.089	B	0.041	0.20
Chromium		7.6		0.059	0.20
Cobalt		5.8		0.10	1.0
Lead		2.6		0.27	0.51
Molybdenum		0.26	U	0.26	2.0
Nickel		8.7		0.12	4.0
Selenium		0.87	U	0.87	1.0

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	01/26/2015 1319			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5580		1.6	5.1
Antimony		0.41	B	0.38	0.61
Barium		56.6		0.077	0.51
Beryllium		0.29		0.033	0.20
Boron		0.99	U	0.99	2.0
Calcium		5170		14.3	50.6
Copper		13.8		0.22	1.0
Iron		17500		3.8	5.1
Magnesium		3970		3.7	20.2
Manganese		237		0.10	1.0
Potassium		815		41.5	304
Silicon		193	N	5.7	10.1
Silver		0.16	U	0.16	0.20
Sodium		243		59.7	121
Vanadium		45.9		0.095	2.0
Zinc		33.1		0.40	1.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/23/2015 1711			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.010	B C	0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V331**

Lab Sample ID: 280-64647-11
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 01/20/2015 0924
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/23/2015 1757			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.0		0.67	1.0
Cadmium		0.086	B	0.042	0.20
Chromium		5.7		0.059	0.20
Cobalt		9.2		0.10	1.0
Lead		1.9		0.27	0.51
Molybdenum		0.26	U	0.26	2.0
Nickel		8.6		0.12	4.1

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1417			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.93		0.39	0.61
Beryllium		0.33		0.034	0.20
Boron		1.0	U	1.0	2.0
Selenium		0.87	U	0.87	1.0
Silver		0.16	U	0.16	0.20
Sodium		254		59.9	122

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1347			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		484		41.7	305

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1321			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4710		7.9	25.4
Barium		57.6		0.39	2.5
Calcium		6110		71.6	254
Copper		17.3		1.1	5.1
Iron		30800		19.3	25.4

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V331**

Lab Sample ID: 280-64647-11
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 01/20/2015 0924
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4960		18.8	102
Manganese		349		0.51	5.1
Silicon		111	N	28.8	50.8
Vanadium		80.2		0.48	10.2
Zinc		52.1		2.0	5.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.71 g
Analysis Date:	01/23/2015 1714			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0076	B C	0.0048	0.015

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V332**

Lab Sample ID: 280-64647-12
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0927
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/23/2015 1800			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.5		0.68	1.0
Cadmium		0.11	B	0.042	0.21
Chromium		6.8		0.060	0.21
Cobalt		7.7		0.10	1.0
Lead		2.5		0.28	0.52
Molybdenum		0.27	U	0.27	2.1
Nickel		11.7		0.13	4.1
Selenium		0.89	U	0.89	1.0

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1420			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.83		0.39	0.62
Beryllium		0.32		0.034	0.21
Boron		1.0	U	1.0	2.1
Silver		0.17	U	0.17	0.21
Sodium		260		60.9	124

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1350			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		688		42.3	309

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1324			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5990		8.0	25.8
Barium		67.3		0.39	2.6
Calcium		6730		72.7	258
Copper		15.3		1.1	5.2
Iron		24900		19.6	25.8

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V332**

Lab Sample ID: 280-64647-12
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0927
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4970		19.1	103
Manganese		311		0.52	5.2
Silicon		157	N	29.2	51.6
Vanadium		68.8		0.48	10.3
Zinc		47.1		2.1	5.2

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Analysis Date:	01/23/2015 1716			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.010	B C	0.0059	0.018

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V333**

Lab Sample ID: 280-64647-13
Client Matrix: Solid
% Moisture: 6.5

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261632	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/23/2015 1803			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.5		0.70	1.1
Cadmium		0.13	B	0.043	0.21
Chromium		11.5		0.061	0.21
Cobalt		7.8		0.11	1.1
Lead		4.1		0.29	0.53
Molybdenum		0.28	U	0.28	2.1
Nickel		12.3		0.13	4.2
Selenium		0.91	U	0.91	1.1

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1422			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.83		0.40	0.64
Beryllium		0.39		0.035	0.21
Boron		1.0	U	1.0	2.1
Silver		0.17	U	0.17	0.21
Sodium		187		62.5	127

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1353			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1350		43.4	318

Analysis Method:	6010B	Analysis Batch:	280-261748	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1326			Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8470		8.2	26.5
Barium		84.2		0.40	2.6
Calcium		4960		74.7	265
Copper		15.9		1.1	5.3
Iron		25200		20.1	26.5

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Client Sample ID: **J1V333**

Lab Sample ID: 280-64647-13
Client Matrix: Solid
% Moisture: 6.5

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

6010B Metals (ICP)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Magnesium		4920		19.6	106
Manganese		366		0.53	5.3
Silicon		241	N	30.0	53.0
Vanadium		59.5		0.50	10.6
Zinc		45.1		2.1	5.3

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	01/23/2015 1718			Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.013	B C	0.0062	0.019

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V321**

Lab Sample ID: 280-64647-1
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0820
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1917						DryWt Corrected: Y
Chloride-Soluble	2.3	B	mg/Kg	2.1	5.2	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1543						DryWt Corrected: Y
Nitrate as N-Soluble	0.70	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1543						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2133						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1543						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/22/2015 2133						DryWt Corrected: Y
Sulfate-Soluble	9.5	C	mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1543						DryWt Corrected: Y
Fluoride-Soluble	1.4	B	mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2133						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.9		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V322**

Lab Sample ID: 280-64647-2
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/20/2015 0828
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1923						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1637						DryWt Corrected: Y
Nitrate as N-Soluble	0.32	U	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1637						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2233						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1637						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/22/2015 2233						DryWt Corrected: Y
Sulfate-Soluble	6.0	C	mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1637						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2233						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.3		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V323**

Lab Sample ID: 280-64647-3
Client Matrix: Solid
% Moisture: 5.8

Date Sampled: 01/20/2015 0858
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1925						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1654						DryWt Corrected: Y
Nitrate as N-Soluble	0.63	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1654						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2253						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1654						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/22/2015 2253						DryWt Corrected: Y
Sulfate-Soluble	5.4	C	mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1654						DryWt Corrected: Y
Fluoride-Soluble	1.1	B	mg/Kg	0.86	5.3	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2253						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V324**

Lab Sample ID: 280-64647-4
Client Matrix: Solid
% Moisture: 3.3

Date Sampled: 01/20/2015 0908
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1927						DryWt Corrected: Y
Chloride-Soluble	2.0	U	mg/Kg	2.0	4.9	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1712						DryWt Corrected: Y
Nitrate as N-Soluble	0.31	U	mg/Kg	0.31	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1712						DryWt Corrected: Y
Bromide-Soluble	0.39	U	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2353						DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1712						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	4.9	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/22/2015 2353						DryWt Corrected: Y
Sulfate-Soluble	4.6	B C	mg/Kg	1.7	4.9	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1712						DryWt Corrected: Y
Fluoride-Soluble	0.81	U	mg/Kg	0.81	4.9	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/22/2015 2353						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.3		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V325**

Lab Sample ID: 280-64647-5
Client Matrix: Solid
% Moisture: 6.6
Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1929						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1730						DryWt Corrected: Y
Nitrate as N-Soluble	0.32	U	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1730						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0013						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1730						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0013						DryWt Corrected: Y
Sulfate-Soluble	4.9	B C	mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1730						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0013						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V326**

Lab Sample ID: 280-64647-6
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 01/20/2015 0847
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-261522	Analysis Date: 01/23/2015 1931						DryWt Corrected: Y
Chloride-Soluble	5.5		mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1748						DryWt Corrected: Y
Nitrate as N-Soluble	0.87	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1748						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0032						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1748						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0032						DryWt Corrected: Y
Sulfate-Soluble	6.2	C	mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1748						DryWt Corrected: Y
Fluoride-Soluble	1.5	B	mg/Kg	0.86	5.3	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0032						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V327**

Lab Sample ID: 280-64647-7
Client Matrix: Solid
% Moisture: 7.8

Date Sampled: 01/20/2015 0853
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.47	B	mg/Kg	0.39	0.81	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 1952						DryWt Corrected: Y
Chloride-Soluble	3.3	B	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1841						DryWt Corrected: Y
Nitrate as N-Soluble	1.0	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1841						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0052						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1841						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0052						DryWt Corrected: Y
Sulfate-Soluble	12.7	C	mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1841						DryWt Corrected: Y
Fluoride-Soluble	0.88	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0052						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

General Chemistry

Client Sample ID: **J1V328**

Lab Sample ID: 280-64647-8
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/20/2015 0911
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.75	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 1954						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1859						DryWt Corrected: Y
Nitrate as N-Soluble	0.33	U	mg/Kg	0.33	2.7	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1859						DryWt Corrected: Y
Bromide-Soluble	0.42	U	mg/Kg	0.42	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0112						DryWt Corrected: Y
Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	2.7	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1859						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0112						DryWt Corrected: Y
Sulfate-Soluble	6.4	C	mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1859						DryWt Corrected: Y
Fluoride-Soluble	1.4	B	mg/Kg	0.87	5.3	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0112						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V329**

Lab Sample ID: 280-64647-9
Client Matrix: Solid
% Moisture: 3.1
Date Sampled: 01/20/2015 0842
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	0.72	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 1956						DryWt Corrected: Y
Chloride-Soluble	2.0	U	mg/Kg	2.0	4.9	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1917						DryWt Corrected: Y
Nitrate as N-Soluble	0.31	U	mg/Kg	0.31	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1917						DryWt Corrected: Y
Bromide-Soluble	0.38	U	mg/Kg	0.38	2.0	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0132						DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1917						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	4.9	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0132						DryWt Corrected: Y
Sulfate-Soluble	5.1	C	mg/Kg	1.7	4.9	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1917						DryWt Corrected: Y
Fluoride-Soluble	0.81	U	mg/Kg	0.81	4.9	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0132						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V330**

Lab Sample ID: 280-64647-10
Client Matrix: Solid
% Moisture: 5.9

Date Sampled: 01/20/2015 0918
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 1958						DryWt Corrected: Y
Chloride-Soluble	2.0	U	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1935						DryWt Corrected: Y
Nitrate as N-Soluble	0.76	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1935						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.0	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0152						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1935						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0152						DryWt Corrected: Y
Sulfate-Soluble	216		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1935						DryWt Corrected: Y
Fluoride-Soluble	0.90	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0152						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.9		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V331**

Lab Sample ID: 280-64647-11
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 01/20/2015 0924
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2000						DryWt Corrected: Y
Chloride-Soluble	2.0	B	mg/Kg	2.0	5.0	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1952						DryWt Corrected: Y
Nitrate as N-Soluble	0.71	B	mg/Kg	0.31	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1952						DryWt Corrected: Y
Bromide-Soluble	0.39	U	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0212						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 1952						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	5.0	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0212						DryWt Corrected: Y
Sulfate-Soluble	4.6	B C	mg/Kg	1.7	5.0	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 1952						DryWt Corrected: Y
Fluoride-Soluble	0.82	U	mg/Kg	0.82	5.0	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0212						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.5		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V332**

Lab Sample ID: 280-64647-12
Client Matrix: Solid
% Moisture: 4.9

Date Sampled: 01/20/2015 0927
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.2	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 2010						DryWt Corrected: Y
Nitrate as N-Soluble	0.33	U	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 2010						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0232						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 2010						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0232						DryWt Corrected: Y
Sulfate-Soluble	4.3	B C	mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 2010						DryWt Corrected: Y
Fluoride-Soluble	0.85	U	mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0232						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.9		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V333**

Lab Sample ID: 280-64647-13
Client Matrix: Solid
% Moisture: 6.5

Date Sampled: 01/20/2015 0834
Date Received: 01/22/2015 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2004						DryWt Corrected: Y
Chloride-Soluble	2.1	U	mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 2028						DryWt Corrected: Y
Nitrate as N-Soluble	0.33	U	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 2028						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0252						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261402	Analysis Date: 01/23/2015 2028						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261235	Analysis Date: 01/23/2015 0252						DryWt Corrected: Y
Sulfate-Soluble	4.1	B C	mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261403	Analysis Date: 01/23/2015 2028						DryWt Corrected: Y
Fluoride-Soluble	1.2	B M	mg/Kg	0.86	5.3	1.0	9056M
Analysis Batch: 280-261236	Analysis Date: 01/23/2015 0252						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.5		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261546	Analysis Date: 01/24/2015 1318						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-64647-1	J1V321	73	75
280-64647-2	J1V322	70	73
280-64647-3	J1V323	71	75
280-64647-4	J1V324	75	75
280-64647-5	J1V325	73	76
280-64647-6	J1V326	71	75
280-64647-7	J1V327	64	80
280-64647-8	J1V328	62	72
280-64647-9	J1V329	65	75
280-64647-10	J1V330	68	71
280-64647-11	J1V331	70	71
280-64647-12	J1V332	71	74
280-64647-13	J1V333	69	72
MB 280-261331/1-A		77	76
LCS 280-261331/2-A		71	71
280-64647-3 MS	J1V323 MS	66	71
280-64647-3 MSD	J1V323 MSD	68	72

Surrogate	Acceptance Limits
DCB = Decachlorobiphenyl	59-130
TCX = Tetrachloro-m-xylene	53-128

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261331

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-261331/1-A	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261331	Lab File ID:	01231404.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	01/23/2015 1417	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	01/22/2015 1920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.7
Aroclor 1221	7.8	U	7.8	16
Aroclor 1232	1.9	U	1.9	9.7
Aroclor 1242	4.5	U	4.5	9.7
Aroclor 1248	4.5	U	4.5	9.7
Aroclor 1254	2.5	U	2.5	9.7
Aroclor 1260	2.5	U	2.5	9.7

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	77	59 - 130
Tetrachloro-m-xylene	76	53 - 128

Lab Control Sample - Batch: 280-261331

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-261331/2-A	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261331	Lab File ID:	01231405.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.8 g
Analysis Date:	01/23/2015 1441	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	01/22/2015 1920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	31.4	24.4	78	54 - 132	
Aroclor 1260	31.4	23.6	75	62 - 129	

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

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-261331

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-64647-3	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261331	Lab File ID:	01231409.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	01/23/2015 1614			Final Weight/Volume:	5 mL
Prep Date:	01/22/2015 1920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-64647-3	Analysis Batch:	280-261435	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261331	Lab File ID:	01231410.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	01/23/2015 1637			Final Weight/Volume:	5 mL
Prep Date:	01/22/2015 1920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	79	79	54 - 132	0	26		
Aroclor 1260	77	78	62 - 129	0	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	66	68	59 - 130
Tetrachloro-m-xylene	71	72	53 - 128

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-261331

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-64647-3	Units:	ug/Kg	MSD Lab Sample ID:	280-64647-3
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2015 1614			Analysis Date:	01/23/2015 1637
Prep Date:	01/22/2015 1920			Prep Date:	01/22/2015 1920
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Aroclor 1016	2.8	U	34.9	34.8	27.6	27.5
Aroclor 1260	2.6	U	34.9	34.8	26.9	27.0

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-261324/1-A	Analysis Batch:	280-261632	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	01/23/2015 1707	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	0.66	U	0.66	1.0
Cadmium	0.041	U	0.041	0.20
Chromium	0.058	U	0.058	0.20
Cobalt	0.137	B	0.10	1.0
Lead	0.27	U	0.27	0.50
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Selenium	0.86	U	0.86	1.0

Method Blank - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-261324/1-A	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	01/26/2015 1232	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Barium	0.128	B	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Calcium	16.20	B	14.1	50.0
Copper	0.22	U	0.22	1.0
Iron	9.33		3.8	5.0
Magnesium	5.54	B	3.7	20.0
Manganese	0.129	B	0.10	1.0
Potassium	41.0	U	41.0	300
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Lab Control Sample - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-261324/2-A	Analysis Batch:	280-261632	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	01/23/2015 1710	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	100	91.92	92	85 - 110	
Cadmium	10.0	9.18	92	87 - 110	
Chromium	20.0	19.36	97	84 - 114	
Cobalt	50.0	50.37	101	87 - 110	
Lead	50.0	48.84	98	86 - 110	
Molybdenum	100	100.4	100	86 - 110	
Nickel	50.0	48.25	96	87 - 110	
Selenium	200	177.0	88	83 - 110	

Lab Control Sample - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-261324/2-A	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	01/26/2015 1234	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	206.4	103	82 - 116	
Antimony	50.0	50.55	101	82 - 110	
Barium	200	208.9	104	87 - 112	
Beryllium	5.00	4.87	97	84 - 114	
Boron	100	98.45	98	80 - 120	
Calcium	5000	4910	98	82 - 114	
Copper	25.0	25.78	103	88 - 110	
Iron	100	107.3	107	87 - 120	
Magnesium	5000	4697	94	90 - 110	
Manganese	50.0	47.72	95	88 - 110	
Potassium	5000	5240	105	89 - 110	
Silicon	1000	75.41	8	10 - 70	N
Silver	5.00	4.94	99	87 - 114	
Sodium	5000	5282	106	90 - 112	
Vanadium	50.0	49.54	99	88 - 110	
Zinc	50.0	47.41	95	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261632	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	01/23/2015 1721	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.4		104	74.30	70	76 - 111	N
Cadmium	0.14	B	10.4	7.85	74	40 - 130	
Chromium	4.9		20.8	20.70	76	70 - 200	
Molybdenum	0.25	B	104	81.75	79	75 - 103	
Nickel	9.5		52.1	46.71	71	61 - 126	
Selenium	0.84	U	208	142.3	68	76 - 104	N

Matrix Spike - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1245	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	5090	208	6277	571	50 - 200	4
Barium	54.8	208	263.2	100	52 - 159	
Calcium	6040	5210	12710	128	43 - 165	
Cobalt	13.1	52.1	64.16	98	72 - 106	
Copper	17.0	26.0	42.52	98	37 - 187	
Iron	29700	104	30000	321	70 - 200	4
Lead	4.6	52.1	50.44	88	70 - 200	
Magnesium	4880	5210	9678	92	64 - 145	
Manganese	331	52.1	421.6	173	40 - 200	4
Silicon	123	1040	286.5	16	20 - 200	N
Vanadium	80.9	52.1	131.7	98	50 - 169	
Zinc	52.1	52.1	97.88	88	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1347	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	1.2		52.1	29.73	55	20 - 200	
Beryllium	0.37		5.21	4.48	79	72 - 105	
Boron	0.95	U	104	81.55	78	80 - 120	N
Silver	0.16	U	5.21	4.36	84	75 - 141	
Sodium	452		5210	5351	94	78 - 111	

Matrix Spike - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1318	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	660	5210	5473	92	56 - 172	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261632	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26b012315.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.16 g
Analysis Date:	01/23/2015 1718	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	1.4		1.53	11	30	
Cadmium	0.14	B	0.0889	41	30	B M
Chromium	4.9		3.42	35	40	
Molybdenum	0.25	B	0.24	NC	30	U
Nickel	9.5		7.12	29	30	
Selenium	0.84	U	0.78	NC	30	U

Duplicate - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.16 g
Analysis Date:	01/26/2015 1242	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Aluminum	5090	4220	19	40	
Barium	54.8	40.08	31	30	M
Calcium	6040	4864	22	30	
Cobalt	13.1	10.15	25	30	
Copper	17.0	13.17	26	30	
Iron	29700	23530	23	40	
Lead	4.6	1.60	96	40	B M
Magnesium	4880	3715	27	30	
Manganese	331	255.2	26	40	
Silicon	123	131.9	7	40	N
Vanadium	80.9	60.48	29	30	
Zinc	52.1	39.71	27	40	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261748	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.16 g
Analysis Date:	01/26/2015 1344	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	1.2		0.864	29	40	
Beryllium	0.37		0.308	18	30	
Boron	0.95	U	0.89	NC	30	U
Silver	0.16	U	0.15	NC	30	U
Sodium	452		381.0	17	30	

Duplicate - Batch: 280-261324

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261324	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.16 g
Analysis Date:	01/27/2015 1316	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/23/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	660	540.6	20	40	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261430

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-261430/1-A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	01/23/2015 1637	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.00717	B	0.0055	0.017

Lab Control Sample - Batch: 280-261430

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-261430/2-A	Analysis Batch:	280-261640	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	01/23/2015 1639	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.407	98	87 - 111	

Matrix Spike - Batch: 280-261430

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261640	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	01/23/2015 1646	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0095	B	0.405	0.384	92	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261430

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261640	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-261430	Lab File ID:	150123aa.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	01/23/2015 1644	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/23/2015 1415				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0095	B	0.00849	11	20	B C

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261522

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-261346/2-A	Analysis Batch:	280-261522	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012315.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/23/2015 1915	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

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

Method Reporting Limit Check - Batch: 280-261522

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-261522/18	Analysis Batch:	280-261522	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012315.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2015 1312	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0831	83	50 - 150	B

Lab Control Sample - Batch: 280-261522

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-261346/1-A	Analysis Batch:	280-261522	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012315.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/23/2015 1913	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	49.3	52.51	107	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261522

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261522	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012315.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/23/2015 1921	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.37	U	41.3	42.43	103	90 - 110	

Duplicate - Batch: 280-261522

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261522	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012315.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/23/2015 1919	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.37	U	0.37	NC	10	U

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-261346/2-A	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/26/2015 1950	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

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

Method Reporting Limit Check - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-261736/18	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/26/2015 1842	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0828	83	50 - 150	B

Lab Control Sample - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-261346/1-A	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/26/2015 1948	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	49.3	52.95	107	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2020	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.38	U	42.5	43.70	103	90 - 110	

Duplicate - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261346	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2006	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/22/2015 1908				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.38	U	0.38	NC	10	U

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261315/2-A	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0030.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2113	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Result	Qual	MDL	RL
Orthophosphate as P-Soluble	1.2	U	1.2	5.0

Method Reporting Limit Check - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261235/3	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0010.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 1143	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.226	113	50 - 150	B
Nitrite as N-Soluble	0.200	0.220	110	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.227	113	50 - 150	B

Lab Control Sample - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261315/1-A	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0029.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2054	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P-Soluble	50.0	47.84	96	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0033.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2213	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P-Soluble	1.3	U	51.5	48.80	95	80 - 120	

Matrix Spike - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0051.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 0412	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P-Soluble	1.3	U	50.1	41.50	83	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0032.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2153	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Duplicate - Batch: 280-261235

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261235	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0050.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 0352	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261315/2-A	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0030.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2113	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Result	Qual	MDL	RL
Bromide-Soluble	0.39	U	0.39	2.0
Fluoride-Soluble	0.82	U	0.82	5.0

Method Reporting Limit Check - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261236/3	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0010.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 1143	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide-Soluble	0.200	0.242	121	50 - 150	
Sulfate-Soluble	2.50	2.09	84	50 - 150	B
Fluoride-Soluble	0.200	0.231	115	50 - 150	B

Lab Control Sample - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261315/1-A	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0029.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2054	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide-Soluble	50.0	47.29	95	90 - 110	
Fluoride-Soluble	50.0	47.64	95	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0033.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2213	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Bromide-Soluble	0.40	U	51.5	48.67	95	80 - 120	
Fluoride-Soluble	1.4	B	51.5	48.93	92	80 - 120	

Matrix Spike - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0051.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 0412	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Bromide-Soluble	0.41	U	50.1	47.51	95	80 - 120	
Fluoride-Soluble	1.2	B	50.1	44.42	86	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0032.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2015 2153	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bromide-Soluble	0.40	U	0.40	NC	10	U
Fluoride-Soluble	1.4	B	1.32	5	10	B

Duplicate - Batch: 280-261236

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261236	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0050.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 0352	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bromide-Soluble	0.41	U	0.41	NC	10	U
Fluoride-Soluble	1.2	B	1.33	11	10	B M

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261315/2-A	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	15.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1525	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.31	U	0.31	2.5
Nitrite as N-Soluble	0.34	U	0.34	2.5

Method Reporting Limit Check - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261402/10	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10.0000.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1332	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.212	106	50 - 150	B
Nitrite as N-Soluble	0.200	0.199	99	50 - 150	B

Lab Control Sample - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261315/1-A	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	14.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1507	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	50.0	49.86	100	90 - 110	
Nitrite as N-Soluble	50.0	50.98	102	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	18.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1619	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.70	B	51.5	53.35	102	80 - 120	
Nitrite as N-Soluble	0.35	U	51.5	52.45	102	80 - 120	

Matrix Spike - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	34.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2104	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.33	U	50.1	51.75	103	80 - 120	
Nitrite as N-Soluble	0.35	U	50.1	50.89	102	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	17.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1601	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.70	B	0.723	3	15	B
Nitrite as N-Soluble	0.35	U	0.35	NC	15	U

Duplicate - Batch: 280-261402

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261402	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	33.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2046	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.33	U	0.33	NC	15	U
Nitrite as N-Soluble	0.35	U	0.35	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Method Blank - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261315/2-A	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	15.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1525	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	2.0	U	2.0	5.0
Sulfate-Soluble	3.36	B	1.7	5.0

Method Reporting Limit Check - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261403/10	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10.0000.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1332	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	2.50	2.49	99	50 - 150	B
Sulfate-Soluble	2.50	2.40	96	50 - 150	B

Lab Control Sample - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261315/1-A	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	14.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1507	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/22/2015 1637				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	999	990.2	99	90 - 110	
Sulfate-Soluble	999	992.1	99	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Matrix Spike - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	18.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1619	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	2.3	B	258	273.1	105	80 - 120	
Sulfate-Soluble	9.5		258	275.3	103	80 - 120	

Matrix Spike - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	34.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2104	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	2.1	U	250	264.1	105	80 - 120	
Sulfate-Soluble	4.1	B	251	259.1	102	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	17.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 1601	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	2.3	B	2.36	3	10	B
Sulfate-Soluble	9.5		9.49	0.3	10	C

Duplicate - Batch: 280-261403

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64647-13	Analysis Batch:	280-261403	Instrument ID:	WC_IonChrom7
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	33.0000.d
Dilution:	1.0	Leach Batch:	280-261315	Initial Weight/Volume:	5 mL
Analysis Date:	01/23/2015 2046	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				10 uL
Leach Date:	01/22/2015 1637				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	2.1	U	2.1	NC	10	U
Sulfate-Soluble	4.1	B	4.11	0.6	10	B C

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

Duplicate - Batch: 280-261546

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-64647-1	Analysis Batch:	280-261546	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/24/2015 1318	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	4.9	4.8	2	20	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-261331					
LCS 280-261331/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-261331/1-A	Method Blank	T	Solid	3550C	
280-64647-1	J1V321	T	Solid	3550C	
280-64647-2	J1V322	T	Solid	3550C	
280-64647-3	J1V323	T	Solid	3550C	
280-64647-3MS	Matrix Spike	T	Solid	3550C	
280-64647-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-64647-4	J1V324	T	Solid	3550C	
280-64647-5	J1V325	T	Solid	3550C	
280-64647-6	J1V326	T	Solid	3550C	
280-64647-7	J1V327	T	Solid	3550C	
280-64647-8	J1V328	T	Solid	3550C	
280-64647-9	J1V329	T	Solid	3550C	
280-64647-10	J1V330	T	Solid	3550C	
280-64647-11	J1V331	T	Solid	3550C	
280-64647-12	J1V332	T	Solid	3550C	
280-64647-13	J1V333	T	Solid	3550C	
Analysis Batch:280-261435					
LCS 280-261331/2-A	Lab Control Sample	T	Solid	8082	280-261331
MB 280-261331/1-A	Method Blank	T	Solid	8082	280-261331
280-64647-1	J1V321	T	Solid	8082	280-261331
280-64647-2	J1V322	T	Solid	8082	280-261331
280-64647-3	J1V323	T	Solid	8082	280-261331
280-64647-3MS	Matrix Spike	T	Solid	8082	280-261331
280-64647-3MSD	Matrix Spike Duplicate	T	Solid	8082	280-261331
280-64647-4	J1V324	T	Solid	8082	280-261331
280-64647-5	J1V325	T	Solid	8082	280-261331
280-64647-6	J1V326	T	Solid	8082	280-261331
280-64647-7	J1V327	T	Solid	8082	280-261331
280-64647-8	J1V328	T	Solid	8082	280-261331
280-64647-9	J1V329	T	Solid	8082	280-261331
280-64647-10	J1V330	T	Solid	8082	280-261331
280-64647-11	J1V331	T	Solid	8082	280-261331
280-64647-12	J1V332	T	Solid	8082	280-261331
280-64647-13	J1V333	T	Solid	8082	280-261331

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-261324					
LCS 280-261324/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-261324/1-A	Method Blank	T	Solid	3050B	
280-64647-1	J1V321	T	Solid	3050B	
280-64647-1DU	Duplicate	T	Solid	3050B	
280-64647-1MS	Matrix Spike	T	Solid	3050B	
280-64647-2	J1V322	T	Solid	3050B	
280-64647-3	J1V323	T	Solid	3050B	
280-64647-4	J1V324	T	Solid	3050B	
280-64647-5	J1V325	T	Solid	3050B	
280-64647-6	J1V326	T	Solid	3050B	
280-64647-7	J1V327	T	Solid	3050B	
280-64647-8	J1V328	T	Solid	3050B	
280-64647-9	J1V329	T	Solid	3050B	
280-64647-10	J1V330	T	Solid	3050B	
280-64647-11	J1V331	T	Solid	3050B	
280-64647-12	J1V332	T	Solid	3050B	
280-64647-13	J1V333	T	Solid	3050B	
Prep Batch: 280-261430					
LCS 280-261430/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-261430/1-A	Method Blank	T	Solid	7471A	
280-64647-1	J1V321	T	Solid	7471A	
280-64647-1DU	Duplicate	T	Solid	7471A	
280-64647-1MS	Matrix Spike	T	Solid	7471A	
280-64647-2	J1V322	T	Solid	7471A	
280-64647-3	J1V323	T	Solid	7471A	
280-64647-4	J1V324	T	Solid	7471A	
280-64647-5	J1V325	T	Solid	7471A	
280-64647-6	J1V326	T	Solid	7471A	
280-64647-7	J1V327	T	Solid	7471A	
280-64647-8	J1V328	T	Solid	7471A	
280-64647-9	J1V329	T	Solid	7471A	
280-64647-10	J1V330	T	Solid	7471A	
280-64647-11	J1V331	T	Solid	7471A	
280-64647-12	J1V332	T	Solid	7471A	
280-64647-13	J1V333	T	Solid	7471A	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-261632					
LCS 280-261324/2-A	Lab Control Sample	T	Solid	6010B	280-261324
MB 280-261324/1-A	Method Blank	T	Solid	6010B	280-261324
280-64647-1	J1V321	T	Solid	6010B	280-261324
280-64647-1DU	Duplicate	T	Solid	6010B	280-261324
280-64647-1MS	Matrix Spike	T	Solid	6010B	280-261324
280-64647-2	J1V322	T	Solid	6010B	280-261324
280-64647-3	J1V323	T	Solid	6010B	280-261324
280-64647-4	J1V324	T	Solid	6010B	280-261324
280-64647-5	J1V325	T	Solid	6010B	280-261324
280-64647-6	J1V326	T	Solid	6010B	280-261324
280-64647-7	J1V327	T	Solid	6010B	280-261324
280-64647-8	J1V328	T	Solid	6010B	280-261324
280-64647-9	J1V329	T	Solid	6010B	280-261324
280-64647-10	J1V330	T	Solid	6010B	280-261324
280-64647-11	J1V331	T	Solid	6010B	280-261324
280-64647-12	J1V332	T	Solid	6010B	280-261324
280-64647-13	J1V333	T	Solid	6010B	280-261324
Analysis Batch:280-261640					
LCS 280-261430/2-A	Lab Control Sample	T	Solid	7471A	280-261430
MB 280-261430/1-A	Method Blank	T	Solid	7471A	280-261430
280-64647-1	J1V321	T	Solid	7471A	280-261430
280-64647-1DU	Duplicate	T	Solid	7471A	280-261430
280-64647-1MS	Matrix Spike	T	Solid	7471A	280-261430
280-64647-2	J1V322	T	Solid	7471A	280-261430
280-64647-3	J1V323	T	Solid	7471A	280-261430
280-64647-4	J1V324	T	Solid	7471A	280-261430
280-64647-5	J1V325	T	Solid	7471A	280-261430
280-64647-6	J1V326	T	Solid	7471A	280-261430
280-64647-7	J1V327	T	Solid	7471A	280-261430
280-64647-8	J1V328	T	Solid	7471A	280-261430
280-64647-9	J1V329	T	Solid	7471A	280-261430
280-64647-10	J1V330	T	Solid	7471A	280-261430
280-64647-11	J1V331	T	Solid	7471A	280-261430
280-64647-12	J1V332	T	Solid	7471A	280-261430
280-64647-13	J1V333	T	Solid	7471A	280-261430

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-261748					
LCS 280-261324/2-A	Lab Control Sample	T	Solid	6010B	280-261324
MB 280-261324/1-A	Method Blank	T	Solid	6010B	280-261324
280-64647-1	J1V321	T	Solid	6010B	280-261324
280-64647-1DU	Duplicate	T	Solid	6010B	280-261324
280-64647-1MS	Matrix Spike	T	Solid	6010B	280-261324
280-64647-2	J1V322	T	Solid	6010B	280-261324
280-64647-3	J1V323	T	Solid	6010B	280-261324
280-64647-4	J1V324	T	Solid	6010B	280-261324
280-64647-5	J1V325	T	Solid	6010B	280-261324
280-64647-6	J1V326	T	Solid	6010B	280-261324
280-64647-7	J1V327	T	Solid	6010B	280-261324
280-64647-8	J1V328	T	Solid	6010B	280-261324
280-64647-9	J1V329	T	Solid	6010B	280-261324
280-64647-10	J1V330	T	Solid	6010B	280-261324
280-64647-11	J1V331	T	Solid	6010B	280-261324
280-64647-12	J1V332	T	Solid	6010B	280-261324
280-64647-13	J1V333	T	Solid	6010B	280-261324
Analysis Batch:280-261948					
280-64647-1	J1V321	T	Solid	6010B	280-261324
280-64647-1DU	Duplicate	T	Solid	6010B	280-261324
280-64647-1MS	Matrix Spike	T	Solid	6010B	280-261324
280-64647-2	J1V322	T	Solid	6010B	280-261324
280-64647-3	J1V323	T	Solid	6010B	280-261324
280-64647-4	J1V324	T	Solid	6010B	280-261324
280-64647-7	J1V327	T	Solid	6010B	280-261324
280-64647-8	J1V328	T	Solid	6010B	280-261324
280-64647-9	J1V329	T	Solid	6010B	280-261324
280-64647-11	J1V331	T	Solid	6010B	280-261324
280-64647-12	J1V332	T	Solid	6010B	280-261324
280-64647-13	J1V333	T	Solid	6010B	280-261324

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-261235					
LCS 280-261315/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261315/2-A	Method Blank	S	Solid	9056M	
280-64647-1	J1V321	S	Solid	9056M	
280-64647-1DU	Duplicate	S	Solid	9056M	
280-64647-1MS	Matrix Spike	S	Solid	9056M	
280-64647-2	J1V322	S	Solid	9056M	
280-64647-3	J1V323	S	Solid	9056M	
280-64647-4	J1V324	S	Solid	9056M	
280-64647-5	J1V325	S	Solid	9056M	
280-64647-6	J1V326	S	Solid	9056M	
280-64647-7	J1V327	S	Solid	9056M	
280-64647-8	J1V328	S	Solid	9056M	
280-64647-9	J1V329	S	Solid	9056M	
280-64647-10	J1V330	S	Solid	9056M	
280-64647-11	J1V331	S	Solid	9056M	
280-64647-12	J1V332	S	Solid	9056M	
280-64647-13	J1V333	S	Solid	9056M	
280-64647-13DU	Duplicate	S	Solid	9056M	
280-64647-13MS	Matrix Spike	S	Solid	9056M	
Analysis Batch:280-261236					
LCS 280-261315/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261315/2-A	Method Blank	S	Solid	9056M	
280-64647-1	J1V321	S	Solid	9056M	
280-64647-1DU	Duplicate	S	Solid	9056M	
280-64647-1MS	Matrix Spike	S	Solid	9056M	
280-64647-2	J1V322	S	Solid	9056M	
280-64647-3	J1V323	S	Solid	9056M	
280-64647-4	J1V324	S	Solid	9056M	
280-64647-5	J1V325	S	Solid	9056M	
280-64647-6	J1V326	S	Solid	9056M	
280-64647-7	J1V327	S	Solid	9056M	
280-64647-8	J1V328	S	Solid	9056M	
280-64647-9	J1V329	S	Solid	9056M	
280-64647-10	J1V330	S	Solid	9056M	
280-64647-11	J1V331	S	Solid	9056M	
280-64647-12	J1V332	S	Solid	9056M	
280-64647-13	J1V333	S	Solid	9056M	
280-64647-13DU	Duplicate	S	Solid	9056M	
280-64647-13MS	Matrix Spike	S	Solid	9056M	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-261315					
LCS 280-261315/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-261315/2-A	Method Blank	S	Solid	DI Leach	
280-64647-1	J1V321	S	Solid	DI Leach	
280-64647-1DU	Duplicate	S	Solid	DI Leach	
280-64647-1MS	Matrix Spike	S	Solid	DI Leach	
280-64647-2	J1V322	S	Solid	DI Leach	
280-64647-3	J1V323	S	Solid	DI Leach	
280-64647-4	J1V324	S	Solid	DI Leach	
280-64647-5	J1V325	S	Solid	DI Leach	
280-64647-6	J1V326	S	Solid	DI Leach	
280-64647-7	J1V327	S	Solid	DI Leach	
280-64647-8	J1V328	S	Solid	DI Leach	
280-64647-9	J1V329	S	Solid	DI Leach	
280-64647-10	J1V330	S	Solid	DI Leach	
280-64647-11	J1V331	S	Solid	DI Leach	
280-64647-12	J1V332	S	Solid	DI Leach	
280-64647-13	J1V333	S	Solid	DI Leach	
280-64647-13DU	Duplicate	S	Solid	DI Leach	
280-64647-13MS	Matrix Spike	S	Solid	DI Leach	
Prep Batch: 280-261346					
LCS 280-261346/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-261346/2-A	Method Blank	S	Solid	DI Leach	
280-64647-1	J1V321	S	Solid	DI Leach	
280-64647-1DU	Duplicate	S	Solid	DI Leach	
280-64647-1MS	Matrix Spike	S	Solid	DI Leach	
280-64647-2	J1V322	S	Solid	DI Leach	
280-64647-3	J1V323	S	Solid	DI Leach	
280-64647-4	J1V324	S	Solid	DI Leach	
280-64647-5	J1V325	S	Solid	DI Leach	
280-64647-6	J1V326	S	Solid	DI Leach	
280-64647-7	J1V327	S	Solid	DI Leach	
280-64647-8	J1V328	S	Solid	DI Leach	
280-64647-9	J1V329	S	Solid	DI Leach	
280-64647-10	J1V330	S	Solid	DI Leach	
280-64647-11	J1V331	S	Solid	DI Leach	
280-64647-12	J1V332	S	Solid	DI Leach	
280-64647-13	J1V333	S	Solid	DI Leach	
280-64647-13DU	Duplicate	S	Solid	DI Leach	
280-64647-13MS	Matrix Spike	S	Solid	DI Leach	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-261402					
LCS 280-261315/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261315/2-A	Method Blank	S	Solid	9056M	
280-64647-1	J1V321	S	Solid	9056M	
280-64647-1DU	Duplicate	S	Solid	9056M	
280-64647-1MS	Matrix Spike	S	Solid	9056M	
280-64647-2	J1V322	S	Solid	9056M	
280-64647-3	J1V323	S	Solid	9056M	
280-64647-4	J1V324	S	Solid	9056M	
280-64647-5	J1V325	S	Solid	9056M	
280-64647-6	J1V326	S	Solid	9056M	
280-64647-7	J1V327	S	Solid	9056M	
280-64647-8	J1V328	S	Solid	9056M	
280-64647-9	J1V329	S	Solid	9056M	
280-64647-10	J1V330	S	Solid	9056M	
280-64647-11	J1V331	S	Solid	9056M	
280-64647-12	J1V332	S	Solid	9056M	
280-64647-13	J1V333	S	Solid	9056M	
280-64647-13DU	Duplicate	S	Solid	9056M	
280-64647-13MS	Matrix Spike	S	Solid	9056M	
Analysis Batch:280-261403					
LCS 280-261315/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261315/2-A	Method Blank	S	Solid	9056M	
280-64647-1	J1V321	S	Solid	9056M	
280-64647-1DU	Duplicate	S	Solid	9056M	
280-64647-1MS	Matrix Spike	S	Solid	9056M	
280-64647-2	J1V322	S	Solid	9056M	
280-64647-3	J1V323	S	Solid	9056M	
280-64647-4	J1V324	S	Solid	9056M	
280-64647-5	J1V325	S	Solid	9056M	
280-64647-6	J1V326	S	Solid	9056M	
280-64647-7	J1V327	S	Solid	9056M	
280-64647-8	J1V328	S	Solid	9056M	
280-64647-9	J1V329	S	Solid	9056M	
280-64647-10	J1V330	S	Solid	9056M	
280-64647-11	J1V331	S	Solid	9056M	
280-64647-12	J1V332	S	Solid	9056M	
280-64647-13	J1V333	S	Solid	9056M	
280-64647-13DU	Duplicate	S	Solid	9056M	
280-64647-13MS	Matrix Spike	S	Solid	9056M	

Client: Washington Closure Hanford

Job Number: 280-64647-1
Sdg Number: JP0895

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-261522					
LCS 280-261346/1-A	Lab Control Sample	S	Solid	353.2	
MB 280-261346/2-A	Method Blank	S	Solid	353.2	
280-64647-1	J1V321	S	Solid	353.2	
280-64647-1DU	Duplicate	S	Solid	353.2	
280-64647-1MS	Matrix Spike	S	Solid	353.2	
280-64647-2	J1V322	S	Solid	353.2	
280-64647-3	J1V323	S	Solid	353.2	
280-64647-4	J1V324	S	Solid	353.2	
280-64647-5	J1V325	S	Solid	353.2	
280-64647-6	J1V326	S	Solid	353.2	
Analysis Batch:280-261546					
280-64647-1	J1V321	T	Solid	D-2216	
280-64647-1DU	Duplicate	T	Solid	D-2216	
280-64647-2	J1V322	T	Solid	D-2216	
280-64647-3	J1V323	T	Solid	D-2216	
280-64647-4	J1V324	T	Solid	D-2216	
280-64647-5	J1V325	T	Solid	D-2216	
280-64647-6	J1V326	T	Solid	D-2216	
280-64647-7	J1V327	T	Solid	D-2216	
280-64647-8	J1V328	T	Solid	D-2216	
280-64647-9	J1V329	T	Solid	D-2216	
280-64647-10	J1V330	T	Solid	D-2216	
280-64647-11	J1V331	T	Solid	D-2216	
280-64647-12	J1V332	T	Solid	D-2216	
280-64647-13	J1V333	T	Solid	D-2216	
Analysis Batch:280-261736					
LCS 280-261346/1-A	Lab Control Sample	S	Solid	353.2	
MB 280-261346/2-A	Method Blank	S	Solid	353.2	
280-64647-7	J1V327	S	Solid	353.2	
280-64647-8	J1V328	S	Solid	353.2	
280-64647-9	J1V329	S	Solid	353.2	
280-64647-10	J1V330	S	Solid	353.2	
280-64647-11	J1V331	S	Solid	353.2	
280-64647-12	J1V332	S	Solid	353.2	
280-64647-13	J1V333	S	Solid	353.2	
280-64647-13DU	Duplicate	S	Solid	353.2	
280-64647-13MS	Matrix Spike	S	Solid	353.2	

Report Basis
S = Soluble
T = Total

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Excavation		**SAF No.** RC-075
Ice Chest No. RCC-07-009	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier \ Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131315		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland
RCF 38738

280-64647 Chain of Custody

POSSIBLE SAMPLE HAZARDS/REMARKS
Potentially radioactive, less than DOT

Special Handling and/or Storage
cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									

Sample No.	Matrix	Sample Date	Sample Time										
J1V321	SOIL	01/20/15	0820	X	X	X							
J1V322	SOIL	01/20/15	0828	X	X	X							
J1V323	SOIL	01/20/15	0858	X	X	X							
J1V324	SOIL	01/20/15	0908	X	X	X							
J1V325	SOIL	01/20/15	0834	X	X	X							

Page 91 of 111

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	0942 1-20-15	C. Martinez/C. Martinez	0942 01/20/15
C. Martinez/C. Martinez	1545 01/20/15	C. Bingham	1-20-15 1545
C. Bingham	1-20-15 1600	1060 Battelle, fridge #2A	1600 1-20-15
1060 Battelle, fridge #2A	0720 1-21-15	C. Bingham	1-21-15 0720
C. Bingham WCH	1-21-15 0730	fed EX	1-21-15 0730
			1-22-15 9:25

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	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}

1.6 IRS + 0.5 1/22/15
Transfered By 1/22/15

REVIEWED BY D. St John Vincent DATE 1-21-15

JP0895

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Excavation		**SAF No.** RC-075
Ice Chest No. RCC-07-009	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier \Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131315		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland

RCF ~~3878~~ 38738
1-20-15 CMB

POSSIBLE SAMPLE HAZARDS/REMARKS
Potentially radioactive, less than DOT

Special Handling and/or Storage
cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									
Sample No.	**Matrix**	**Sample Date**	**Sample Time**									
J1V326	SOIL	01/20/15	0847	X	X	X						
J1V327	SOIL	01/20/15	0853	X	X	X						
J1V328	SOIL	01/20/15	0911	X	X	X						
J1V329	SOIL	01/20/15	0842	X	X	X						
J1V330	SOIL	01/20/15	0918	X	X	X						

Page 98 of 101

CHAIN OF POSSESSION	Sign/Print Names
Relinquished By/Removed From: Quincy Stowe — Date/Time: 1-20-15 0942	Received By/Stored In: C. Martinez/C. Martinez — Date/Time: 01/20/15 0942
Relinquished By/Removed From: C. Martinez/C. Martinez — Date/Time: 01/20/15 1545	Received By/Stored In: C. Bingham — Date/Time: 1-20-15 1545
Relinquished By/Removed From: C. Bingham — Date/Time: 1-20-15 1600	Received By/Stored In: 1060 Battelle, fridge #2A — Date/Time: 1-20-15 1600
Relinquished By/Removed From: 1060 Battelle, fridge #2A — Date/Time: 1-21-15 0720	Received By/Stored In: C. Bingham — Date/Time: 1-21-15 0720
Relinquished By/Removed From: C. Bingham WCH — Date/Time: 1-21-15 0730	Received By/Stored In: fed Ex — Date/Time: 1-21-15 0730
Relinquished By/Removed From: — Date/Time:	Received By/Stored In: — Date/Time: 1-22-15 9:25
Relinquished By/Removed From: — Date/Time:	Received By/Stored In: — Date/Time:

FINAL SAMPLE DISPOSITION — Disposal Method: — Disposed By: — 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}

REVIEWED BY D.St John/Vacerma
DATE 1-21-15

JP0895

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-463

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Excavation		**SAF No.** RC-075
Ice Chest No. RCC-07-009	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier \Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131315		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland
RCF38738

POSSIBLE SAMPLE HAZARDS/REMARKS
Potentially radioactive, less than DOT

Special Handling and/or Storage
cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									

Sample No.	Matrix	Sample Date	Sample Time										
V331	SOIL	01/20/15	0924	X	X	X							
V332	SOIL	01/20/15	0927	X	X	X							
V333	SOIL	01/20/15	0834	X	X	X							

Page 99 of 101

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From: Quincy Stowe	Date/Time 0942 1-20-15	Received By/Stored In: C. Martinez/C. Martinez	Date/Time 0942 01/20/15
Relinquished By/Removed From: C. Martinez/C. Martinez	Date/Time 1545 01/20/15	Received By/Stored In: C. Bingham	Date/Time 1-20-15 1545
Relinquished By/Removed From: C. Bingham	Date/Time 1-20-15 1600	Received By/Stored In: 1060 Battelle, fridge #2A	Date/Time 1600 1-20-15
Relinquished By/Removed From: 1060 Battelle, fridge #2A	Date/Time 1-21-15 0720	Received By/Stored In: C. Bingham	Date/Time 1-21-15 0720
Relinquished By/Removed From: C. Bingham WCH	Date/Time 1-21-15 0730	Received By/Stored In: fed EX	Date/Time 1-21-15 0730
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time 1-22-15 9:25
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	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}

REVIEWED BY D.St.John/[illegible] DATE 1-21-15

JP0895

WCH-EE-011

TestAmerica

Temp 1.60 IR# 5

CF +0.5 Initals TOP

Date: 01/22/15

90 Days/W Permission

Project 28002142

Report Due: 1/29/2015 D.B. 1-22-15

TALs TAT: Rush 5 day TAT

Sample Check-in List

Date/Time Received: 1/22/15 9:25 **GM Screen Result** 15 **microR/hr**

Client: Washington Closure Hanford **SDG #:** JP0895 NA[ ] **SAF #:** RC-075 NA [ ]

Job Number: 64647 **Chain of Custody #** RC-075-463

Shipping Container ID: RCC-07-009 **Air Bill #** 7726584699 66

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: 1.6 IR5 +0.5 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 13
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Labels
   - ✓ Appropriate Sample Labels
9. Samples are:
   - ✓ In Good Condition
   - ___ 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? * yes
    *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:** 1/22/15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager Darlene Bendy Date 1-22-15

LS-023, Rev. 7, 1/08

From: (509) 376-7492
1162 Shipping
US DOE co WCH
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J151015011403uv

Ship Date: 21JAN15
ActWgt: 80.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 01D8522000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0190
Kae Yoder
TestAmerica
4955 Yarrow St.

ARVADA, CO 80002

BILL THIRD PARTY

THU - 22 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7726 5846 9666

XH WHHA

80002
CO-US
DEN

537J1/8F15/EE4B

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 value of 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 $1,000, 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.