SAF-RC-189
100N Field Remediation –
Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 5/19/15
INITIAL/DATE

COMMENTS:

SDG JP0961 SAF RC-189

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-N-96 (excavation, verification)

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 33 *Pages*

Report No.: 65671

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.
JP0961	RC-189	J1V6V6	J5E040423-1	M6QLM1AA	9M6QLM10	5125015
		J1V6V7	J5E040423-2	M6QLN1AA	9M6QLN10	5125015
		J1V6V8	J5E040423-3	M6QLP1AA	9M6QLP10	5125015
		J1V6V9	J5E040423-4	M6QLQ1AA	9M6QLQ10	5125015
		J1V6W0	J5E040423-5	M6QLR1AA	9M6QLR10	5125015
		J1V6W1	J5E040423-6	M6QLT1AA	9M6QLT10	5125015
		J1V6W2	J5E040423-7	M6QLV1AA	9M6QLV10	5125015
		J1V6W3	J5E040423-8	M6QLW1AA	9M6QLW10	5125015
		J1V6W4	J5E040423-9	M6QLX1AA	9M6QLX10	5125015
		J1V6W5	J5E040423-10	M6QL01AA	9M6QL010	5125015
	RC-189	J1V6W6	J5E040423-11	M6QL11AA	9M6QL110	5125015
		J1V6W7	J5E040423-12	M6QL21AA	9M6QL210	5125015
		J1V6W8	J5E040423-13	M6QL31AA	9M6QL310	5125015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

May 7, 2015

Attention: Joan Kessner

SAF Number	:	RC-189
Date SDG Closed	:	May 4, 2015
Number of Samples	:	Thirteen (13)
Sample Type	:	Soil
SDG Number	:	JP0961
Data Deliverable	:	7-Day / Summary

CASE NARRATIVE

I. Introduction

On May 4, 2015, thirteen soil samples were received at TestAmerica for chemistry analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1V6V6	M6QLM	SOIL	5/04/15
J1V6V7	M6QLN	SOIL	5/04/15
J1V6V8	M6QLP	SOIL	5/04/15
J1V6V9	M6QLQ	SOIL	5/04/15
J1V6W0	M6QLR	SOIL	5/04/15
J1V6W1	M6QLT	SOIL	5/04/15
J1V6W2	M6QLV	SOIL	5/04/15
J1V6W3	M6QLW	SOIL	5/04/15
J1V6W4	M6QLX	SOIL	5/04/15
J1V6W5	M6QL0	SOIL	5/04/15
J1V6W6	M6QL1	SOIL	5/04/15
J1V6W7	M6QL2	SOIL	5/04/15
J1V6W8	M6QL3	SOIL	5/04/15

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 analysis was:

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

Chemical Analysis
Hexavalent Chromium by EPA method 7196A:
The LCS, batch blank, samples, sample duplicate (J1V6V6) and sample matrix spike (J1V6V6) 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.
CSU (#s) ***u_c Combined Standard Uncert.***	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 standard 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.

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rptGeneralInfo v3.72

Sample Results Summary

TestAmerica Inc TARL

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

Date: 07-May-15

Report No. : 65671

SDG No: JP0961

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5125015	7196_CR6								
	J1V6V6								
	M6QLM1AA	HEXCHROME	2.40E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	M6QLM1AF	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	43.0
	J1V6V7								
	M6QLN1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6V8								
	M6QLP1AA	HEXCHROME	4.21E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6V9								
	M6QLQ1AA	HEXCHROME	3.19E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W0								
	M6QLR1AA	HEXCHROME	2.80E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W1								
	M6QLT1AA	HEXCHROME	1.97E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W2								
	M6QLV1AA	HEXCHROME	2.96E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W3								
	M6QLW1AA	HEXCHROME	2.18E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W4								
	M6QLX1AA	HEXCHROME	2.18E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W5								
	M6QL01AA	HEXCHROME	2.77E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W6								
	M6QL11AA	HEXCHROME	2.37E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W7								
	M6QL21AA	HEXCHROME	3.19E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1V6W8								
	M6QL31AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

No. of Results: 14

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.8 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

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 07-May-15

Report No. : 65671

SDG No.: JP0961

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
7196_CR6								
5125015 MATRIX SPIKE, J1V6V6								
M6QLM1AC	HEXCHROME	2.41E+01 +- 0.0E+00		mg/kg	N/A	79%	-0.2	1.55E-01
5125015 LCS,								
M6QM11AC	HEXCHROME	1.89E+01 +- 0.0E+00		mg/kg	N/A	94%	-0.1	1.55E-01
5125015 BLANK QC,								
M6QM11AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 3

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rptSTLRchQcSummary V5.3.6.8
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: 07-May-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0961	**Collection Date:**	4/30/2015 11:56:00 AM
Lot-Sample No.:	J5E040423-1	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	J1V6V6	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLM1AA		**Report DB ID:**	9M6QLM10				
HEXCHROME	**2.40E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.5)*	5/5/15 04:05 p		2.5108	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 12:09:00 PM
Lot-Sample No.:	**J5E040423-2**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6V7**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:** M6QLN1AA			**Report DB ID:** 9M6QLN10					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	5/5/15 04:05 p		2.5141	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0961	**Collection Date:**	4/30/2015 12:03:00 PM
Lot-Sample No.:	J5E040423-3	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	J1V6V8	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLP1AA		**Report DB ID:**	9M6QLP10				
HEXCHROME	**4.21E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(2.7)*	5/5/15 04:05 p		2.5105	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 12:16:00 PM
Lot-Sample No.:	**J5E040423-4**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6V9**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLQ1AA		**Report DB ID:**	9M6QLQ10				
HEXCHROME	**3.19E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(2.1)*	5/5/15 04:05 p		2.5025	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.8 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: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 11:04:00 AM
Lot-Sample No.:	**J5E040423-5**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W0**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLR1AA		**Report DB ID:**	9M6QLR10				
HEXCHROME	**2.80E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.8)*	5/5/15 04:05 p		2.5086	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 11:11:00 AM
Lot-Sample No.:	**J5E040423-6**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W1**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:** M6QLT1AA			**Report DB ID:** 9M6QLT10					
HEXCHROME	**1.97E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.3)*	5/5/15 04:05 p		2.5031	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.8 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: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:55:00 AM
Lot-Sample No.:	**J5E040423-7**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W2**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLV1AA		**Report DB ID:**	9M6QLV10				
HEXCHROME	**2.96E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.9)*	5/5/15 04:05 p		2.5223	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:41:00 AM
Lot-Sample No.:	**J5E040423-8**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W3**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLW1AA		**Report DB ID:**	9M6QLW10				
HEXCHROME	**2.18E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.4)*	5/5/15 04:05 p		2.5055	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:48:00 AM
Lot-Sample No.:	J5E040423-9	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	J1V6W4	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QLX1AA		**Report DB ID:**	9M6QLX10				
HEXCHROME	2.18E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.4)*	5/5/15 04:05 p		2.5068	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.8 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: 07-May-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:30:00 AM
Lot-Sample No.:	J5E040423-10	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	J1V6W5	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QL01AA		**Report DB ID:**	9M6QL010				
HEXCHROME	2.77E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.8)*	5/5/15 04:05 p		2.5072	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.8 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: 07-May-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:16:00 AM
Lot-Sample No.:	J5E040423-11	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	J1V6W6	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QL11AA		**Report DB ID:**	9M6QL110				
HEXCHROME	**2.37E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(1.5)*	5/5/15 04:05 p		2.5022	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 10:23:00 AM
Lot-Sample No.:	**J5E040423-12**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W7**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QL21AA		**Report DB ID:**	9M6QL210				
HEXCHROME	**3.19E-01**			0.0E+00	1.55E-01	mg/kg	N/A	*(2.1)*	5/5/15 04:05 p		2.5063	
							1.55E-01	*N/A*			g	

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

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

FORM I

SAMPLE RESULTS

Date: 07-May-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 11:11:00 AM
Lot-Sample No.:	**J5E040423-13**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6W8**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (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: 5125015	7196_CR6			**Work Order:**	M6QL31AA		**Report DB ID:**	9M6QL310				
HEXCHROME	**1.55E-01**	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	5/5/15 04:05 p		2.5142	
							1.55E-01	*N/A*			g	

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

TestAmerica Inc
rptSTLRchSample
V5.3.6.8 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: 07-May-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0961	**Collection Date:**	4/30/2015 11:56:00 AM
Lot-Sample No.:	**J5E040423-1**	**Report No. :**	65671	**Received Date:**	5/4/2015 2:45:00 PM
Client Sample ID:	**J1V6V6**	**COC No. :**	RC-189-310	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5125015	7196_CR6			**Work Order:**	M6QLM1AF	**Report DB ID:**	M6QLM1ER		**Orig Sa DB ID:** 9M6QLM10			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	5/5/15 04:05 p		2.5075	
	2.40E-01		**RPD**	**43.0**		1.55E-01		N/A			g	

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

TestAmerica Inc
rptSTLRchDupV5.3.6.8 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

BLANK RESULTS

Date: 07-May-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0961

Report No. : 65671

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5125015	7196_CR6			**Work Order:**	M6QM11AA	**Report DB ID:**	M6QM11AB					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	5/5/15 04:05 p		2.5	
						1.55E-01		N/A			g	

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

TestAmerica Inc
rptSTLRchBlank
V5.3.6.8 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: 07-May-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0961

Report No. : 65671

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 5125015	7196_CR6			**Work Order:**	M6QM11AC		**Report DB ID:**	M6QM11AS					
HEXCHROME	1.89E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		94%	5/5/15 04:05 p	2.5	
							Rec Limits:	80	120	-0.1		g	

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

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

rptSTLRchLcs
V5.3.6.8 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 07-May-15

Lab Name: TestAmerica Inc **SDG:** JP0961

Lot-Sample No.: J5E040423-1, J1V6V6 **Report No. :** 65671 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 5125015	**Work Order:** M6QLM1AC			**Report DB ID:** M6QLM1CW			**Orig Sa DB ID:** 9M6QLM10					
HEXCHROME	2.41E+01			0.0E+00	1.55E-01	mg/kg	N/A	78.90%	3.06E+01	5/5/15 04:05 p	2.5249	7196_CR6
	2.40E-01										g	

Number of Results: 1

Comments:

TestAmerica Inc
rptSTLRchMs
V5.3.6.8 A2002

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s):	5125015	Lab Sample Numbers or SDG:	JP0961

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?	~~✓~~	~~✓~~ RW 5/7/15	✓	✓
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: ~~10-30747~~ RW 5/7/15

Analyst Andrew Carney Date 5/7/15 2nd Review [illegible] Date 5/7/15

CG-231 Rev 2, 10/14

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7 days		
Project Designation: 100N Field Remediation	Sampling Location: 100-N-96 (excavation, verification)		SAF No.: RC-189
Ice Chest No.: SML-159	Field Logbook No.: EL-1652-12	COA: 000N962000	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

POSSIBLE SAMPLE HAZARDS/REMARKS

N/A

Special Handling and/or Storage

Cooling as required

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	125mL										
Sample Analysis	Chromium Hex - 7196										

Sample No.	Matrix	Sample Date	Sample Time									
J1V6V6 m6QLM	SOIL	4/30/15	1156	X								
J1V6V7 m6QLN	SOIL	4/30/15	1209	X								
J1V6V8 m6QLP	SOIL	4/30/15	1203	X								
J1V6V9 m6QLQ	SOIL	4/30/15	1216	X								
J1V6W0 m6QLR	SOIL	4/30/15	1104	X								

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1222 4-30-15	c:\mart.nez\c:\martinez	1222 4/30/15
c:\mart.nez\c:\martinez	4/30/15 1540	C. Bingham	4-30-15 1540
C. Bingham	4-30-15 1615	1000 Battelle, Fridge #3B	1615 4-30-15
1000 Battelle, Fridge #3B	0730 5-4-15	C. Bingham	5-4-15 0730
C. Bingham WCH	1445 5-4-15	J. Friesz, TARL	5/4/15 1445

Sign/Print Names

SPECIAL INSTRUCTIONS

J5E040423
Due 5-11-15

REVIEWED BY K.Woodhouse DATE 5-4-15

SDG: JP0961

J5E040423

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7 days		
Project Designation: 100N Field Remediation	Sampling Location: 100-N-96 (excavation, verification)		SAF No.: RC-189
Ice Chest No.: SML-159	Field Logbook No.: EL-1652-12	COA: 000N962000	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

POSSIBLE SAMPLE HAZARDS/REMARKS
N/A

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	125mL										
Sample Analysis	Chromium Hex - 7196										

Sample No.	Matrix	Sample Date	Sample Time									
J1V6W1 m6QLT	SOIL	4/30/15	1111	X								
J1V6W2 m6QLV	SOIL	4/30/15	1055	X								
J1V6W3 m6QLW	SOIL	4/30/15	1041	X								
J1V6W4 m6QLX	SOIL	4/30/15	1048	X								
J1V6W5 m6QLD	SOIL	4/30/15	1030	X								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From: Quinn Stowe	Date/Time: 1222 4-30-15	Received By/Stored In: C. Martinez/C. Martinez	Date/Time: 1222 4/30/15
Relinquished By/Removed From: C. Martinez/C. Martinez	Date/Time: 1540 4/30/15	Received By/Stored In: C. Bingham	Date/Time: 4-30-15 1540
Relinquished By/Removed From: C. Bingham	Date/Time: 4-30-15 1615	Received By/Stored In: 1060 Battelle, Trailer #3B	Date/Time: 1615 4-30-15
Relinquished By/Removed From: 1060 Battelle, Trailer #3B	Date/Time: 0730 5-4-15	Received By/Stored In: C. Bingham	Date/Time: 5-4-15 0730
Relinquished By/Removed From: C. Bingham	Date/Time: 1445 5-4-15	Received By/Stored In: J. Friesz, TARL	Date/Time: 5/4/15 1445
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

SPECIAL INSTRUCTIONS

JSE040423
Due 5-11-15

REVIEWED BY K. Woodhamel DATE 5-4-15

JP0961

WCH-EE-011

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7 days		
Project Designation: 100N Field Remediation	Sampling Location: 100-N-96 (excavation, verification)		SAF No.: RC-189
Ice Chest No.: SML-159	Field Logbook No.: EL-1652-12	COA: 000N962000	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

POSSIBLE SAMPLE HAZARDS/REMARKS
N/A

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C											
Type of Container	G/P											
No. of Container(s)	1											
Volume	125mL											
Sample Analysis	Chromium Hex - 7196											

Sample No.	Matrix	Sample Date	Sample Time										
J1V6W6 m6QL1	SOIL	4/30/15	1016	X									
J1V6W7 m6QL2	SOIL	4/30/15	1023	X									
J1V6W8 m6QL3	SOIL	4/30/15	1111	X									

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	4-30-15 1222	C. Martinez/C. Martinez	4/30/15 1222
C. Martinez/C. Martinez	4/30/15 1540	C. Bingham	4-30-15 1540
C. Bingham	4-30-15 1615	1060 Battelle, Fridge #3B	4-30-15 1615
1060 Battelle, Fridge #3B	5-4-15 0730	C. Bingham	5-4-15 0730
C. Bingham WCH	5-4-15 1445	J. Friesz, TARL	5/4/15 1445

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

JSE040423
Due 5-11-15

REVIEWED BY K. Wood Vierema
DATE 5-4-15

JP0961

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5/4/15 1445 Container GM Screen Result: (Airlock) 60 cpm Initials[JF]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials[JF]

Client: WCH SDG #: JP 09161 SAF #: RC-189 NA [ ]

Lot Number: JSE040423

Chain of Custody # RC-189-310

Shipping Container ID or Air Bill Number : _____ NA [ ]

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

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: 10.8 °C w ICE NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 13
7. Containers received: 13 x 125mLp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: ____tape ____hazard labels ____custody seals ____appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
    ____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 [ ]
    (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 [ ]
14. Description of anomalies (include sample numbers): NA [ ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
    *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: JF 5/4/15 5/4/15

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

[ ] No action necessary; process as is

Project Manager _____ Date 5/5/15

LS-023 Rev. 17, 05/13

Page 1 of 1

5/5/2015 8:16:16 AM

Sample Preparation/Analysis

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

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

Balance Id:,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 05/11/2015

Batch: 5125015 SOIL mg/kg
SEQ Batch, Test: None All Tests: 5125015 DWEA,

PM, Quote: RW2, 27038

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 M6QLM-1-AA													
J5E040423-1-SAMP													
04/30/2015 11:56			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
2 M6QLM-1-AC-S													
J5E040423-1-MS													
04/30/2015 11:56			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
3 M6QLM-1-AD-X													
J5E040423-1-DUP													
04/30/2015 11:56			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
4 M6QLM-1-AE-S													
J5E040423-1-MS													
04/30/2015 11:56			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
5 M6QLN-1-AA													
J5E040423-2-SAMP													
04/30/2015 12:09			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
6 M6QLP-1-AA													
J5E040423-3-SAMP													
04/30/2015 12:03			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
7 M6QLQ-1-AA													
J5E040423-4-SAMP													
04/30/2015 12:16			AmtRec: 1X125MLP		#Containers: 1				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 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

ICOC v4.9.0

5/5/2015 8:16:18 AM

Sample Preparation/Analysis

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

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

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

AnalyDueDate: 05/11/2015

Batch: 5125015 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:
8 M6QLR-1-AA J5E040423-5-SAMP 04/30/2015 11:04			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
9 M6QLT-1-AA J5E040423-6-SAMP 04/30/2015 11:11			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
10 M6QLV-1-AA J5E040423-7-SAMP 04/30/2015 10:55			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
11 M6QLW-1-AA J5E040423-8-SAMP 04/30/2015 10:41			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
12 M6QLX-1-AA J5E040423-9-SAMP 04/30/2015 10:48			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
13 M6QL0-1-AA J5E040423-10-SAMP 04/30/2015 10:30			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
14 M6QL1-1-AA J5E040423-11-SAMP 04/30/2015 10:16			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:

TestAmerica Richland Wa.
Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
ISV - Insufficient Volume for Analysis
WO Cnt: 14
ICOC v4.9.0

5/5/2015 8:16:18 AM

Sample Preparation/Analysis

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

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

Balance Id:,,

Pipet #: _____

AnalyDueDate: 05/11/2015

Sep1 DT/Tm Tech:

Batch: 5125015 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 M6QL2-1-AA J5E040423-12-SAMP 04/30/2015 10:23			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
16 M6QL3-1-AA J5E040423-13-SAMP 04/30/2015 11:11			AmtRec: 1X125MLP		#Containers: 1				Scr:		Alpha:		Beta:
17 M6QM1-1-AA-B J5E050000-15-BLK 05/05/2015 08:16 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:
18 M6QM1-1-AC-C J5E050000-15-LCS 05/05/2015 08:16 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:

5/5/2015 8:16:19 AM

Sample Preparation/Analysis

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

Balance Id:,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 05/11/2015

Batch: 5125015 **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

M6QLM1AA-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

M6QLM1AC-MS Constituent List:

M6QLM1AE-MS:

M6QM11AA-BLK:

M6QM11AC-LCS:

M6QLM1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M6QLM1AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M6QLM1AE-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M6QM11AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M6QM11AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

ANALYTICAL REPORT

Job Number: 280-68739-1

SDG Number: JP0961

Job Description: SAF# RC-189

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Senior Project Manager
5/14/2015 10:59 AM

Kae E Yoder, Senior Project Manager
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0190
kae.yoder@testamericainc.com
05/14/2015

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.

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Job Number: 280-68739-1

SDG #: JP0961
SAF#: RC-189

Date SDG Closed: May 5, 2015
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V6V6	280-68739-1	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6V7	280-68739-2	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6V8	280-68739-3	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6V9	280-68739-4	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W0	280-68739-5	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W1	280-68739-6	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W2	280-68739-7	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W3	280-68739-8	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W4	280-68739-9	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W5	280-68739-10	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W6	280-68739-11	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W7	280-68739-12	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B
J1V6W8	280-68739-13	6010/7471/8082/8310/WTPH-D+/5035-8260	6010B/7471A/8082/8310/NWTPH-Dx/5035-8260B

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 5/5/2015 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.4º C, 3.0º C, 4.3º C and 5.8º C.

The Chain of Custody indicates "VOA samples frozen upon collection", and it can be noted that the 5035/8260B VOA samples were placed in the freezer upon receipt at the laboratory. The client was notified on 5/6/2015.

GC/MS VOLATILES - SW846 8260B
The Internal Standard (ISTD) response for samples J1V6V6 and J1V6V7 were outside control limits, low. The samples were reanalyzed until there was no volume remaining; however, all of the internal standards failed low in all of the analyses. Data are reported as is. The laboratory believes this anomaly is due to bad purges caused by leaks around the vial cap.

Samples J1V6V9 and J1V6W7 exhibited surrogate recoveries outside the control limits, biased high. This is an indicator that data may be biased high. As no detectable concentrations are present at levels greater than the reporting limits in the samples, corrective action is deemed unnecessary.

Low levels of Acetone, a common laboratory contaminant, are present in the method blank associated with batch 280-276337. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a “B”.

The MS/MSD performed on sample J1V6V6 in batch 280-276099 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged “T”. In addition, RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1V6W8 in batch 280-276337 exhibited RPD data outside the control limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

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

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

HPLC - SW846 8310 - PAHs
No anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-276084 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an “X”.

Low levels of Barium, Calcium and Magnesium are present in the method blank associated with batch 280-276084. Because the concentrations in the method blank are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary.

Silicon was recovered outside the control limits, biased low, in the LCS associated with batch 280-276084 and in the Matrix Spike performed on sample J1V6V6 in batch 280-276084. 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 J1V6V6; therefore, control limits are not applicable.

Boton was recovered outside the control limits in the Matrix Spike performed on sample J1V6V6, and the associated sample result has been flagged “N”. There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	Surrogate is outside acceptance limits.
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
HPLC/IC		
	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
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
General Chemistry		
	U	Analyzed for but not detected.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-68739-1	J1V6V6	Solid	04/30/2015 1156	05/05/2015 1005
280-68739-2	J1V6V7	Solid	04/30/2015 1209	05/05/2015 1005
280-68739-3	J1V6V8	Solid	04/30/2015 1203	05/05/2015 1005
280-68739-4	J1V6V9	Solid	04/30/2015 1216	05/05/2015 1005
280-68739-5	J1V6W0	Solid	04/30/2015 1104	05/05/2015 1005
280-68739-6	J1V6W1	Solid	04/30/2015 1111	05/05/2015 1005
280-68739-7	J1V6W2	Solid	04/30/2015 1055	05/05/2015 1005
280-68739-8	J1V6W3	Solid	04/30/2015 1041	05/05/2015 1005
280-68739-9	J1V6W4	Solid	04/30/2015 1048	05/05/2015 1005
280-68739-10	J1V6W5	Solid	04/30/2015 1030	05/05/2015 1005
280-68739-11	J1V6W6	Solid	04/30/2015 1016	05/05/2015 1005
280-68739-12	J1V6W7	Solid	04/30/2015 1023	05/05/2015 1005
280-68739-13	J1V6W8	Solid	04/30/2015 1111	05/05/2015 1005

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Closed System Purge and Trap	TAL DEN		SW846 5035
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method	Analyst	Analyst ID
SW846 8260B	Meier, Greg P	GPM
SW846 8260B	Seifert, Judy L	JLS
SW846 8082	Jackson, Todd D	TDJ
NWTPH NWTPH-Dx	Moore, Tegan E	TEM
SW846 6010B	Broander, Laura L	LLB
SW846 6010B	Scott, Samantha J	SJS
SW846 7471A	Whyte, Whitney A	WAW
ASTM D-2216	Lawrence, Caitlyn M	CML
SW846 8310	Fiedler, Heather K	HKF

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V6

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3641.D
Dilution:	1.0			Initial Weight/Volume:	5.414 g
Analysis Date:	05/05/2015 2300			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1156				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.0	U	5.0	19
Benzene		0.44	U	0.44	4.7
Bromodichloromethane		0.21	U	0.21	4.7
Bromoform		0.22	U	0.22	4.7
Bromomethane		0.47	U	0.47	9.4
2-Butanone (MEK)		1.7	U	1.7	9.4
Carbon disulfide		0.39	U	0.39	4.7
Carbon tetrachloride		0.59	U	0.59	4.7
Chlorobenzene		0.51	U T	0.51	4.7
Dibromochloromethane		0.53	U	0.53	4.7
Chloroethane		0.84	U	0.84	9.4
Chloroform		0.27	U	0.27	4.7
Chloromethane		0.72	U	0.72	9.4
1,1-Dichloroethane		0.20	U	0.20	4.7
1,2-Dichloroethane		0.66	U	0.66	4.7
1,1-Dichloroethene		0.55	U	0.55	4.7
1,2-Dichloroethene, Total		0.37	U	0.37	4.7
1,2-Dichloropropane		0.52	U	0.52	4.7
cis-1,3-Dichloropropene		1.2	U	1.2	4.7
trans-1,3-Dichloropropene		0.63	U	0.63	4.7
Ethylbenzene		0.63	U T	0.63	4.7
2-Hexanone		4.6	U	4.6	19
Methylene Chloride		1.5	U	1.5	4.7
4-Methyl-2-pentanone (MIBK)		4.1	U	4.1	9.4
Styrene		0.59	U T	0.59	4.7
1,1,2,2-Tetrachloroethane		0.57	U	0.57	4.7
Tetrachloroethene		0.55	U T	0.55	4.7
Toluene		0.65	U	0.65	4.7
1,1,1-Trichloroethane		0.49	U	0.49	4.7
1,1,2-Trichloroethane		0.83	U	0.83	4.7
Trichloroethene		0.22	U	0.22	4.7
Vinyl chloride		1.3	U	1.3	4.7
Xylenes, Total		0.57	U T	0.57	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	132		58 - 140
Toluene-d8 (Surr)	102		80 - 126
4-Bromofluorobenzene (Surr)	99		76 - 127
Dibromofluoromethane (Surr)	119		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V6**

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3641.D
Dilution:	1.0			Initial Weight/Volume:	5.414 g
Analysis Date:	05/05/2015 2300			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1156				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	3.92	25	N J
	Unknown	4.07	26	N J
	Unknown	4.39	130	N J
	Unknown	4.64	55	N J
	Unknown	4.75	29	N J
	Unknown	4.83	73	N J
	Unknown	5.05	47	N J
75-02-5	Ethene, fluoro-	6.68	36	N J
	Unknown	8.89	4.8	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V7

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6571.D
Dilution:	1.0			Initial Weight/Volume:	4.712 g
Analysis Date:	05/07/2015 0749			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1209				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		36	B	6.0	22
Benzene		0.52	U	0.52	5.6
Bromodichloromethane		0.25	U	0.25	5.6
Bromoform		0.26	U	0.26	5.6
Bromomethane		0.56	U	0.56	11
2-Butanone (MEK)		2.0	U	2.0	11
Carbon disulfide		0.47	U	0.47	5.6
Carbon tetrachloride		0.70	U	0.70	5.6
Chlorobenzene		0.60	U	0.60	5.6
Dibromochloromethane		0.64	U	0.64	5.6
Chloroethane		0.99	U	0.99	11
Chloroform		0.32	U	0.32	5.6
Chloromethane		0.86	U	0.86	11
1,1-Dichloroethane		0.23	U	0.23	5.6
1,2-Dichloroethane		0.78	U	0.78	5.6
1,1-Dichloroethene		0.66	U	0.66	5.6
1,2-Dichloroethene, Total		0.44	U	0.44	5.6
1,2-Dichloropropane		0.61	U	0.61	5.6
cis-1,3-Dichloropropene		1.4	U	1.4	5.6
trans-1,3-Dichloropropene		0.75	U	0.75	5.6
Ethylbenzene		0.75	U	0.75	5.6
2-Hexanone		5.5	U	5.5	22
Methylene Chloride		1.8	U	1.8	5.6
4-Methyl-2-pentanone (MIBK)		4.9	U	4.9	11
Styrene		0.70	U	0.70	5.6
1,1,2,2-Tetrachloroethane		0.68	U	0.68	5.6
Tetrachloroethene		0.66	U	0.66	5.6
Toluene		0.77	U	0.77	5.6
1,1,1-Trichloroethane		0.58	U	0.58	5.6
1,1,2-Trichloroethane		0.98	U	0.98	5.6
Trichloroethene		0.26	U	0.26	5.6
Vinyl chloride		1.5	U	1.5	5.6
Xylenes, Total		0.68	U	0.68	5.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		58 - 140
Toluene-d8 (Surr)	99		80 - 126
4-Bromofluorobenzene (Surr)	98		76 - 127
Dibromofluoromethane (Surr)	111		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V7**

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6571.D
Dilution:	1.0			Initial Weight/Volume:	4.712 g
Analysis Date:	05/07/2015 0749			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1209				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
4786-20-3	2-Butenenitrile	4.36	37	N J
29427-58-5	o-Methylisourea hydrogen sulfate	4.90	66	N J
29427-58-5	o-Methylisourea hydrogen sulfate	5.30	59	N J
	Unknown	5.85	6.9	N J
	Unknown	6.73	38	N J
110-82-7	Cyclohexane	7.33	1.0	J N J
	Unknown	8.69	16	N J
541-05-9	Cyclotrisiloxane, hexamethyl-	9.04	10	N J
	Unknown	9.49	6.6	N J
104-76-7	1-Hexanol, 2-ethyl-	13.98	6.4	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6585.D
Dilution:	1.0			Initial Weight/Volume:	3.659 g
Analysis Date:	05/07/2015 1248			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1203				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		7.1	U	7.1	27
Benzene		0.62	U	0.62	6.6
Bromodichloromethane		0.29	U	0.29	6.6
Bromoform		0.31	U	0.31	6.6
Bromomethane		0.66	U	0.66	13
2-Butanone (MEK)		2.4	U	2.4	13
Carbon disulfide		0.56	U	0.56	6.6
Carbon tetrachloride		0.84	U	0.84	6.6
Chlorobenzene		0.72	U	0.72	6.6
Dibromochloromethane		0.76	U	0.76	6.6
Chloroethane		1.2	U	1.2	13
Chloroform		0.38	U	0.38	6.6
Chloromethane		1.0	U	1.0	13
1,1-Dichloroethane		0.28	U	0.28	6.6
1,2-Dichloroethane		0.93	U	0.93	6.6
1,1-Dichloroethene		1.2	J	0.78	6.6
1,2-Dichloroethene, Total		0.52	U	0.52	6.6
1,2-Dichloropropane		0.73	U	0.73	6.6
cis-1,3-Dichloropropene		1.7	U	1.7	6.6
trans-1,3-Dichloropropene		0.89	U	0.89	6.6
Ethylbenzene		0.89	U	0.89	6.6
2-Hexanone		6.5	U	6.5	27
Methylene Chloride		2.5	J	2.1	6.6
4-Methyl-2-pentanone (MIBK)		5.8	U	5.8	13
Styrene		0.84	U	0.84	6.6
1,1,2,2-Tetrachloroethane		0.81	U	0.81	6.6
Tetrachloroethene		0.78	U	0.78	6.6
Toluene		0.92	U	0.92	6.6
1,1,1-Trichloroethane		0.69	U	0.69	6.6
1,1,2-Trichloroethane		1.2	U	1.2	6.6
Trichloroethene		0.31	U	0.31	6.6
Vinyl chloride		1.8	U	1.8	6.6
Xylenes, Total		0.81	U	0.81	6.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		58 - 140
Toluene-d8 (Surr)	100		80 - 126
4-Bromofluorobenzene (Surr)	94		76 - 127
Dibromofluoromethane (Surr)	107		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6585.D
Dilution:	1.0			Initial Weight/Volume:	3.659 g
Analysis Date:	05/07/2015 1248			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1203				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	4.06	11	N J
	Unknown	4.70	13	N J
1000130-39-9	erythro-4-Hydroxyarginine lactone	5.08	12	N J
60-29-7	Ethyl ether	5.22	3.2	J N J
2516-33-8	Cyclopropyl carbinol	5.34	9.2	N J
	Unknown	6.74	27	N J
110-82-7	Cyclohexane	7.35	1.3	J N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V9

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3646.D
Dilution:	1.0			Initial Weight/Volume:	4.955 g
Analysis Date:	05/06/2015 0050			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1216				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.8	J	5.5	20
Benzene		0.48	U	0.48	5.1
Bromodichloromethane		0.22	U	0.22	5.1
Bromoform		0.23	U	0.23	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		1.9	U	1.9	10
Carbon disulfide		0.43	U	0.43	5.1
Carbon tetrachloride		0.64	U	0.64	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.58	U	0.58	5.1
Chloroethane		0.90	U	0.90	10
Chloroform		0.29	U	0.29	5.1
Chloromethane		0.78	U	0.78	10
1,1-Dichloroethane		0.21	U	0.21	5.1
1,2-Dichloroethane		0.71	U	0.71	5.1
1,1-Dichloroethene		0.60	U	0.60	5.1
1,2-Dichloroethene, Total		0.40	U	0.40	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.68	U	0.68	5.1
Ethylbenzene		0.68	U	0.68	5.1
2-Hexanone		5.0	U	5.0	20
Methylene Chloride		1.6	U	1.6	5.1
4-Methyl-2-pentanone (MIBK)		4.4	U	4.4	10
Styrene		0.64	U	0.64	5.1
1,1,2,2-Tetrachloroethane		0.62	U	0.62	5.1
Tetrachloroethene		0.60	U	0.60	5.1
Toluene		0.70	U	0.70	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.89	U	0.89	5.1
Trichloroethene		0.23	U	0.23	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.62	U	0.62	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	142	*	58 - 140
Toluene-d8 (Surr)	123		80 - 126
4-Bromofluorobenzene (Surr)	117		76 - 127
Dibromofluoromethane (Surr)	130	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V9

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3646.D
Dilution:	1.0			Initial Weight/Volume:	4.955 g
Analysis Date:	05/06/2015 0050			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1216				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
64-18-6	Formic acid	6.69	31	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W0

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6575.D
Dilution:	1.0			Initial Weight/Volume:	4.423 g
Analysis Date:	05/07/2015 0910			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1104				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		6.9	J B	6.2	23
Benzene		0.54	U	0.54	5.7
Bromodichloromethane		0.25	U	0.25	5.7
Bromoform		0.26	U	0.26	5.7
Bromomethane		0.57	U	0.57	11
2-Butanone (MEK)		2.1	U	2.1	11
Carbon disulfide		0.48	U	0.48	5.7
Carbon tetrachloride		0.72	U	0.72	5.7
Chlorobenzene		0.62	U	0.62	5.7
Dibromochloromethane		0.65	U	0.65	5.7
Chloroethane		1.0	U	1.0	11
Chloroform		0.33	U	0.33	5.7
Chloromethane		0.88	U	0.88	11
1,1-Dichloroethane		0.24	U	0.24	5.7
1,2-Dichloroethane		0.80	U	0.80	5.7
1,1-Dichloroethene		0.72	J	0.68	5.7
1,2-Dichloroethene, Total		0.45	U	0.45	5.7
1,2-Dichloropropane		0.63	U	0.63	5.7
cis-1,3-Dichloropropene		1.5	U	1.5	5.7
trans-1,3-Dichloropropene		0.77	U	0.77	5.7
Ethylbenzene		0.77	U	0.77	5.7
2-Hexanone		5.6	U	5.6	23
Methylene Chloride		1.8	U	1.8	5.7
4-Methyl-2-pentanone (MIBK)		5.0	U	5.0	11
Styrene		0.72	U	0.72	5.7
1,1,2,2-Tetrachloroethane		0.70	U	0.70	5.7
Tetrachloroethene		0.68	U	0.68	5.7
Toluene		0.79	U	0.79	5.7
1,1,1-Trichloroethane		0.60	U	0.60	5.7
1,1,2-Trichloroethane		1.0	U	1.0	5.7
Trichloroethene		0.26	U	0.26	5.7
Vinyl chloride		1.5	U	1.5	5.7
Xylenes, Total		0.70	U	0.70	5.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		58 - 140
Toluene-d8 (Surr)	101		80 - 126
4-Bromofluorobenzene (Surr)	94		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W0**

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6575.D
Dilution:	1.0			Initial Weight/Volume:	4.423 g
Analysis Date:	05/07/2015 0910			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1104				

Tentatively Identified Compounds **Number TIC's Found: 3**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
60-29-7	Ethyl ether	5.21	2.8	J N
	Unknown	6.73	25	J N
110-82-7	Cyclohexane	7.34	0.68	J N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W1

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6576.D
Dilution:	1.0			Initial Weight/Volume:	4.136 g
Analysis Date:	05/07/2015 0930			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		8.9	J B	6.6	25
Benzene		0.58	U	0.58	6.1
Bromodichloromethane		0.27	U	0.27	6.1
Bromoform		0.28	U	0.28	6.1
Bromomethane		0.61	U	0.61	12
2-Butanone (MEK)		2.2	U	2.2	12
Carbon disulfide		0.51	U	0.51	6.1
Carbon tetrachloride		0.77	U	0.77	6.1
Chlorobenzene		0.66	U	0.66	6.1
Dibromochloromethane		0.70	U	0.70	6.1
Chloroethane		1.1	U	1.1	12
Chloroform		0.36	U	0.36	6.1
Chloromethane		0.94	U	0.94	12
1,1-Dichloroethane		0.26	U	0.26	6.1
1,2-Dichloroethane		0.86	U	0.86	6.1
1,1-Dichloroethene		0.72	U	0.72	6.1
1,2-Dichloroethene, Total		0.48	U	0.48	6.1
1,2-Dichloropropane		0.67	U	0.67	6.1
cis-1,3-Dichloropropene		1.6	U	1.6	6.1
trans-1,3-Dichloropropene		0.82	U	0.82	6.1
Ethylbenzene		0.82	U	0.82	6.1
2-Hexanone		6.0	U	6.0	25
Methylene Chloride		2.7	J	2.0	6.1
4-Methyl-2-pentanone (MIBK)		5.3	U	5.3	12
Styrene		0.77	U	0.77	6.1
1,1,2,2-Tetrachloroethane		0.75	U	0.75	6.1
Tetrachloroethene		0.72	U	0.72	6.1
Toluene		0.85	U	0.85	6.1
1,1,1-Trichloroethane		0.64	U	0.64	6.1
1,1,2-Trichloroethane		1.1	U	1.1	6.1
Trichloroethene		0.28	U	0.28	6.1
Vinyl chloride		1.6	U	1.6	6.1
Xylenes, Total		0.75	U	0.75	6.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		58 - 140
Toluene-d8 (Surr)	101		80 - 126
4-Bromofluorobenzene (Surr)	97		76 - 127
Dibromofluoromethane (Surr)	110		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W1**

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6576.D
Dilution:	1.0			Initial Weight/Volume:	4.136 g
Analysis Date:	05/07/2015 0930			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				

Tentatively Identified Compounds **Number TIC's Found: 4**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	4.04	8.5	N J
60-29-7	Ethyl ether	5.21	3.0	J N
	Unknown	6.72	29	N J
110-82-7	Cyclohexane	7.33	1.6	J N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W2

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3649.D
Dilution:	1.0			Initial Weight/Volume:	3.338 g
Analysis Date:	05/06/2015 0157			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1055				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		9.2	J	8.1	30
Benzene		0.71	U	0.71	7.5
Bromodichloromethane		0.33	U	0.33	7.5
Bromoform		0.35	U	0.35	7.5
Bromomethane		0.75	U	0.75	15
2-Butanone (MEK)		2.8	U	2.8	15
Carbon disulfide		0.63	U	0.63	7.5
Carbon tetrachloride		0.95	U	0.95	7.5
Chlorobenzene		0.81	U	0.81	7.5
Dibromochloromethane		0.86	U	0.86	7.5
Chloroethane		1.3	U	1.3	15
Chloroform		0.44	U	0.44	7.5
Chloromethane		1.2	U	1.2	15
1,1-Dichloroethane		0.32	U	0.32	7.5
1,2-Dichloroethane		1.1	U	1.1	7.5
1,1-Dichloroethene		0.89	U	0.89	7.5
1,2-Dichloroethene, Total		0.59	U	0.59	7.5
1,2-Dichloropropane		0.83	U	0.83	7.5
cis-1,3-Dichloropropene		1.9	U	1.9	7.5
trans-1,3-Dichloropropene		1.0	U	1.0	7.5
Ethylbenzene		1.0	U	1.0	7.5
2-Hexanone		7.4	U	7.4	30
Methylene Chloride		2.4	U	2.4	7.5
4-Methyl-2-pentanone (MIBK)		6.6	U	6.6	15
Styrene		0.95	U	0.95	7.5
1,1,2,2-Tetrachloroethane		0.92	U	0.92	7.5
Tetrachloroethene		0.89	U	0.89	7.5
Toluene		1.0	U	1.0	7.5
1,1,1-Trichloroethane		0.78	U	0.78	7.5
1,1,2-Trichloroethane		1.3	U	1.3	7.5
Trichloroethene		0.35	U	0.35	7.5
Vinyl chloride		2.0	U	2.0	7.5
Xylenes, Total		0.92	U	0.92	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		58 - 140
Toluene-d8 (Surr)	117		80 - 126
4-Bromofluorobenzene (Surr)	108		76 - 127
Dibromofluoromethane (Surr)	101		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3649.D
Dilution:	1.0			Initial Weight/Volume:	3.338 g
Analysis Date:	05/06/2015 0157			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1055				

Tentatively Identified Compounds **Number TIC's Found: 3**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
75-21-8	Ethylene oxide	4.55	420	J N J
78-92-2	sec-Butyl Alcohol	6.70	270	J N J
71-36-3	n-Butanol	7.75	31	J N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W3

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6577.D
Dilution:	1.0			Initial Weight/Volume:	4.948 g
Analysis Date:	05/07/2015 0950			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1041				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		10	J B	5.5	21
Benzene		0.48	U	0.48	5.1
Bromodichloromethane		0.23	U	0.23	5.1
Bromoform		0.24	U	0.24	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		1.9	U	1.9	10
Carbon disulfide		0.43	U	0.43	5.1
Carbon tetrachloride		0.65	U	0.65	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.59	U	0.59	5.1
Chloroethane		0.91	U	0.91	10
Chloroform		0.30	U	0.30	5.1
Chloromethane		0.79	U	0.79	10
1,1-Dichloroethane		0.22	U	0.22	5.1
1,2-Dichloroethane		0.72	U	0.72	5.1
1,1-Dichloroethene		0.73	J	0.61	5.1
1,2-Dichloroethene, Total		0.40	U	0.40	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.69	U	0.69	5.1
Ethylbenzene		0.69	U	0.69	5.1
2-Hexanone		5.0	U	5.0	21
Methylene Chloride		3.2	J	1.6	5.1
4-Methyl-2-pentanone (MIBK)		4.5	U	4.5	10
Styrene		0.65	U	0.65	5.1
1,1,2,2-Tetrachloroethane		0.63	U	0.63	5.1
Tetrachloroethene		0.61	U	0.61	5.1
Toluene		0.71	U	0.71	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.90	U	0.90	5.1
Trichloroethene		0.24	U	0.24	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.63	U	0.63	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		58 - 140
Toluene-d8 (Surr)	101		80 - 126
4-Bromofluorobenzene (Surr)	96		76 - 127
Dibromofluoromethane (Surr)	108		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W3**

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6577.D
Dilution:	1.0			Initial Weight/Volume:	4.948 g
Analysis Date:	05/07/2015 0950			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1041				

Tentatively Identified Compounds **Number TIC's Found: 5**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	4.06	6.4	N J
1000215-69-6	2-Chloro-1,3-difluoropropane	4.48	5.5	N J
60-29-7	Ethyl ether	5.23	2.5	J N J
	Unknown	6.74	24	N J
110-82-7	Cyclohexane	7.35	2.0	J N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W4

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6578.D
Dilution:	1.0			Initial Weight/Volume:	4.493 g
Analysis Date:	05/07/2015 1011			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1048				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		6.1	U	6.1	23
Benzene		0.53	U	0.53	5.6
Bromodichloromethane		0.25	U	0.25	5.6
Bromoform		0.26	U	0.26	5.6
Bromomethane		0.56	U	0.56	11
2-Butanone (MEK)		2.1	U	2.1	11
Carbon disulfide		0.47	U	0.47	5.6
Carbon tetrachloride		0.71	U	0.71	5.6
Chlorobenzene		0.61	U	0.61	5.6
Dibromochloromethane		0.64	U	0.64	5.6
Chloroethane		1.0	U	1.0	11
Chloroform		0.33	U	0.33	5.6
Chloromethane		0.87	U	0.87	11
1,1-Dichloroethane		0.24	U	0.24	5.6
1,2-Dichloroethane		0.79	U	0.79	5.6
1,1-Dichloroethene		0.67	U	0.67	5.6
1,2-Dichloroethene, Total		0.44	U	0.44	5.6
1,2-Dichloropropane		0.62	U	0.62	5.6
cis-1,3-Dichloropropene		1.5	U	1.5	5.6
trans-1,3-Dichloropropene		0.76	U	0.76	5.6
Ethylbenzene		0.76	U	0.76	5.6
2-Hexanone		5.5	U	5.5	23
Methylene Chloride		1.8	U	1.8	5.6
4-Methyl-2-pentanone (MIBK)		4.9	U	4.9	11
Styrene		0.71	U	0.71	5.6
1,1,2,2-Tetrachloroethane		0.69	U	0.69	5.6
Tetrachloroethene		0.67	U	0.67	5.6
Toluene		0.78	U	0.78	5.6
1,1,1-Trichloroethane		0.59	U	0.59	5.6
1,1,2-Trichloroethane		0.99	U	0.99	5.6
Trichloroethene		0.26	U	0.26	5.6
Vinyl chloride		1.5	U	1.5	5.6
Xylenes, Total		0.69	U	0.69	5.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		58 - 140
Toluene-d8 (Surr)	101		80 - 126
4-Bromofluorobenzene (Surr)	97		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W4

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6578.D
Dilution:	1.0			Initial Weight/Volume:	4.493 g
Analysis Date:	05/07/2015 1011			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1048				

Tentatively Identified Compounds **Number TIC's Found: 4**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
60-29-7	Ethyl ether	5.23	2.7	J N J
2516-33-8	Cyclopropyl carbinol	5.37	9.0	N J
	Unknown	6.74	23	N J
110-82-7	Cyclohexane	7.35	0.65	J N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6579.D
Dilution:	1.0			Initial Weight/Volume:	3.736 g
Analysis Date:	05/07/2015 1031			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		21	J B	7.2	27
Benzene		0.63	U	0.63	6.7
Bromodichloromethane		0.30	U	0.30	6.7
Bromoform		0.31	U	0.31	6.7
Bromomethane		0.67	U	0.67	13
2-Butanone (MEK)		2.5	U	2.5	13
Carbon disulfide		0.56	U	0.56	6.7
Carbon tetrachloride		0.85	U	0.85	6.7
Chlorobenzene		0.73	U	0.73	6.7
Dibromochloromethane		0.77	U	0.77	6.7
Chloroethane		1.2	U	1.2	13
Chloroform		0.39	U	0.39	6.7
Chloromethane		1.0	U	1.0	13
1,1-Dichloroethane		0.28	U	0.28	6.7
1,2-Dichloroethane		0.94	U	0.94	6.7
1,1-Dichloroethene		0.79	U	0.79	6.7
1,2-Dichloroethene, Total		0.52	U	0.52	6.7
1,2-Dichloropropane		0.74	U	0.74	6.7
cis-1,3-Dichloropropene		1.7	U	1.7	6.7
trans-1,3-Dichloropropene		0.90	U	0.90	6.7
Ethylbenzene		0.90	U	0.90	6.7
2-Hexanone		6.6	U	6.6	27
Methylene Chloride		2.3	J	2.2	6.7
4-Methyl-2-pentanone (MIBK)		5.9	U	5.9	13
Styrene		0.85	U	0.85	6.7
1,1,2,2-Tetrachloroethane		0.82	U	0.82	6.7
Tetrachloroethene		0.79	U	0.79	6.7
Toluene		0.93	U	0.93	6.7
1,1,1-Trichloroethane		0.70	U	0.70	6.7
1,1,2-Trichloroethane		1.2	U	1.2	6.7
Trichloroethene		0.31	U	0.31	6.7
Vinyl chloride		1.8	U	1.8	6.7
Xylenes, Total		0.82	U	0.82	6.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		58 - 140
Toluene-d8 (Surr)	102		80 - 126
4-Bromofluorobenzene (Surr)	94		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6579.D
Dilution:	1.0			Initial Weight/Volume:	3.736 g
Analysis Date:	05/07/2015 1031			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1030				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	4.04	9.4	J N
	Unknown	4.49	18	J N
	Unknown	5.07	34	J N
60-29-7	Ethyl ether	5.21	3.4	J N
	Unknown	6.74	34	J N
110-82-7	Cyclohexane	7.33	1.0	J N
	Unknown	8.74	6.9	J N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W6

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6580.D
Dilution:	1.0			Initial Weight/Volume:	4.473 g
Analysis Date:	05/07/2015 1051			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1016				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		6.1	U	6.1	23
Benzene		0.53	U	0.53	5.6
Bromodichloromethane		0.25	U	0.25	5.6
Bromoform		0.26	U	0.26	5.6
Bromomethane		0.56	U	0.56	11
2-Butanone (MEK)		2.1	U	2.1	11
Carbon disulfide		0.47	U	0.47	5.6
Carbon tetrachloride		0.71	U	0.71	5.6
Chlorobenzene		0.61	U	0.61	5.6
Dibromochloromethane		0.64	U	0.64	5.6
Chloroethane		1.0	U	1.0	11
Chloroform		0.33	U	0.33	5.6
Chloromethane		0.87	U	0.87	11
1,1-Dichloroethane		0.24	U	0.24	5.6
1,2-Dichloroethane		0.79	U	0.79	5.6
1,1-Dichloroethene		0.88	J	0.66	5.6
1,2-Dichloroethene, Total		0.44	U	0.44	5.6
1,2-Dichloropropane		0.62	U	0.62	5.6
cis-1,3-Dichloropropene		1.5	U	1.5	5.6
trans-1,3-Dichloropropene		0.75	U	0.75	5.6
Ethylbenzene		0.75	U	0.75	5.6
2-Hexanone		5.5	U	5.5	23
Methylene Chloride		1.8	U	1.8	5.6
4-Methyl-2-pentanone (MIBK)		4.9	U	4.9	11
Styrene		0.71	U	0.71	5.6
1,1,2,2-Tetrachloroethane		0.69	U	0.69	5.6
Tetrachloroethene		0.66	U	0.66	5.6
Toluene		0.78	U	0.78	5.6
1,1,1-Trichloroethane		0.59	U	0.59	5.6
1,1,2-Trichloroethane		0.99	U	0.99	5.6
Trichloroethene		0.26	U	0.26	5.6
Vinyl chloride		1.5	U	1.5	5.6
Xylenes, Total		0.69	U	0.69	5.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		58 - 140
Toluene-d8 (Surr)	104		80 - 126
4-Bromofluorobenzene (Surr)	97		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W6**

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6580.D
Dilution:	1.0			Initial Weight/Volume:	4.473 g
Analysis Date:	05/07/2015 1051			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1016				

Tentatively Identified Compounds **Number TIC's Found: 5**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
24309-48-6	Thiocyanic acid, 2-propynyl ester	4.74	13	N J
60-29-7	Ethyl ether	5.23	2.7	J N J
103439-06-1	Benzeneethanamine, 4-fluoro-.beta.,3-dih	5.40	14	N J
	Unknown	6.73	22	N J
110-82-7	Cyclohexane	7.35	0.56	J N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3654.D
Dilution:	1.0			Initial Weight/Volume:	4.04 g
Analysis Date:	05/06/2015 0347			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1023				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		7.9	J	6.7	25
Benzene		0.58	U	0.58	6.2
Bromodichloromethane		0.27	U	0.27	6.2
Bromoform		0.29	U	0.29	6.2
Bromomethane		0.62	U	0.62	12
2-Butanone (MEK)		2.3	U	2.3	12
Carbon disulfide		0.52	U	0.52	6.2
Carbon tetrachloride		0.78	U	0.78	6.2
Chlorobenzene		0.67	U	0.67	6.2
Dibromochloromethane		0.71	U	0.71	6.2
Chloroethane		1.1	U	1.1	12
Chloroform		0.36	U	0.36	6.2
Chloromethane		0.96	U	0.96	12
1,1-Dichloroethane		0.26	U	0.26	6.2
1,2-Dichloroethane		0.87	U	0.87	6.2
1,1-Dichloroethene		0.73	U	0.73	6.2
1,2-Dichloroethene, Total		0.49	U	0.49	6.2
1,2-Dichloropropane		0.68	U	0.68	6.2
cis-1,3-Dichloropropene		1.6	U	1.6	6.2
trans-1,3-Dichloropropene		0.83	U	0.83	6.2
Ethylbenzene		0.83	U	0.83	6.2
2-Hexanone		6.1	U	6.1	25
Methylene Chloride		2.0	U	2.0	6.2
4-Methyl-2-pentanone (MIBK)		5.4	U	5.4	12
Styrene		0.78	U	0.78	6.2
1,1,2,2-Tetrachloroethane		0.76	U	0.76	6.2
Tetrachloroethene		0.73	U	0.73	6.2
Toluene		0.86	U	0.86	6.2
1,1,1-Trichloroethane		0.65	U	0.65	6.2
1,1,2-Trichloroethane		1.1	U	1.1	6.2
Trichloroethene		0.29	U	0.29	6.2
Vinyl chloride		1.7	U	1.7	6.2
Xylenes, Total		0.76	U	0.76	6.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	140		58 - 140
Toluene-d8 (Surr)	109		80 - 126
4-Bromofluorobenzene (Surr)	113		76 - 127
Dibromofluoromethane (Surr)	131	*	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Prep Method:	5035	Prep Batch:	280-276099	Lab File ID:	G3654.D
Dilution:	1.0			Initial Weight/Volume:	4.04 g
Analysis Date:	05/06/2015 0347			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1023				

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
123-91-1	1,4-Dioxane	8.34	160	J N J
1000214-70-0	5-Bromo-6-methoxy-2-methyl-8-nitroquinol	8.76	60	N J
	Unknown	8.92	77	N J
55570-89-3	1(3H)-Isobenzofuranone, 4(or 5)-(hydroxy	9.01	88	N J
1000145-66-9	Cyclopropanecarbonitrile, 1-methyl-2,2-d	10.28	90	N J
7359-72-0	Benzene, 1,2,3-trichloro-4-methyl-	10.72	140	N J
50-82-8	Benzoic acid, 2,4,5-trichloro-	10.84	91	N J
13939-06-5	Molybdenum hexacarbonyl	11.19	96	N J
588-05-6	Phenol, 3-(2-aminoethyl)-	14.00	140	N J
519-05-1	5,6-Dimethoxyphthalaldehydic acid	14.99	77	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W8

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6586.D
Dilution:	1.0			Initial Weight/Volume:	4.669 g
Analysis Date:	05/07/2015 1308			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		9.7	J B	6.0	22
Benzene		0.52	U	0.52	5.5
Bromodichloromethane		0.24	U	0.24	5.5
Bromoform		0.26	U	0.26	5.5
Bromomethane		0.55	U	0.55	11
2-Butanone (MEK)		2.0	U	2.0	11
Carbon disulfide		0.47	U	0.47	5.5
Carbon tetrachloride		0.70	U	0.70	5.5
Chlorobenzene		0.60	U	0.60	5.5
Dibromochloromethane		0.63	U	0.63	5.5
Chloroethane		0.99	U	0.99	11
Chloroform		0.32	U	0.32	5.5
Chloromethane		0.85	U	0.85	11
1,1-Dichloroethane		0.23	U	0.23	5.5
1,2-Dichloroethane		0.78	U	0.78	5.5
1,1-Dichloroethene		0.65	U	0.65	5.5
1,2-Dichloroethene, Total		0.43	U	0.43	5.5
1,2-Dichloropropane		0.61	U	0.61	5.5
cis-1,3-Dichloropropene		1.4	U	1.4	5.5
trans-1,3-Dichloropropene		0.74	U	0.74	5.5
Ethylbenzene		0.74	U	0.74	5.5
2-Hexanone		5.4	U	5.4	22
Methylene Chloride		1.8	U	1.8	5.5
4-Methyl-2-pentanone (MIBK)		4.8	U	4.8	11
Styrene		0.70	U	0.70	5.5
1,1,2,2-Tetrachloroethane		0.68	U	0.68	5.5
Tetrachloroethene		0.65	U	0.65	5.5
Toluene		0.77	U	0.77	5.5
1,1,1-Trichloroethane		0.58	U	0.58	5.5
1,1,2-Trichloroethane		0.98	U	0.98	5.5
Trichloroethene		0.26	U	0.26	5.5
Vinyl chloride		1.5	U	1.5	5.5
Xylenes, Total		0.68	U	0.68	5.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		58 - 140
Toluene-d8 (Surr)	103		80 - 126
4-Bromofluorobenzene (Surr)	98		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Prep Method:	5035	Prep Batch:	280-276337	Lab File ID:	J6586.D
Dilution:	1.0			Initial Weight/Volume:	4.669 g
Analysis Date:	05/07/2015 1308			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				

Tentatively Identified Compounds **Number TIC's Found: 3**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
60-29-7	Ethyl ether	5.21	2.7	J N
	Unknown	6.74	23	J N
110-82-7	Cyclohexane	7.35	0.66	J N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V6**

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1142			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	83		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V7**

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	31.0 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1205			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	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	84		59 - 130
Tetrachloro-m-xylene	74		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	31.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1315			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.3
Aroclor 1221		7.4	U	7.4	15
Aroclor 1232		1.9	U	1.9	9.3
Aroclor 1242		4.3	U	4.3	9.3
Aroclor 1248		4.3	U	4.3	9.3
Aroclor 1254		2.4	U	2.4	9.3
Aroclor 1260		2.4	U	2.4	9.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	79		59 - 130
Tetrachloro-m-xylene	71		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V9**

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1338			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	84		59 - 130
Tetrachloro-m-xylene	67		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W0**

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	32.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1401			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	78		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W1**

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1424			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	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	82		59 - 130
Tetrachloro-m-xylene	75		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1448			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	76		59 - 130
Tetrachloro-m-xylene	67		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W3**

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1511			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	67		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W4**

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	31.0 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1534			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.8
Aroclor 1221		7.9	U	7.9	16
Aroclor 1232		2.0	U	2.0	9.8
Aroclor 1242		4.6	U	4.6	9.8
Aroclor 1248		4.6	U	4.6	9.8
Aroclor 1254		2.6	U	2.6	9.8
Aroclor 1260		2.6	U	2.6	9.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	80		59 - 130
Tetrachloro-m-xylene	72		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	31.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1557			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	82		59 - 130
Tetrachloro-m-xylene	65		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W6**

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1620			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	85		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1644			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	79		59 - 130
Tetrachloro-m-xylene	72		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-276203	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	05/09/2015 1707			Injection Volume:	1 uL
Prep Date:	05/06/2015 1330			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	79		59 - 130
Tetrachloro-m-xylene	72		53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V6**

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080014.D
Dilution:	1.0			Initial Weight/Volume:	31.3 g
Analysis Date:	05/08/2015 1250			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		2300	J	970	3900
C10-C28		1200	J	660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	76		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V7**

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080015.D
Dilution:	1.0			Initial Weight/Volume:	31.3 g
Analysis Date:	05/08/2015 1315			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3100	J	1000	4000
C10-C28		1800	J	680	4000

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080016.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	05/08/2015 1339			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		950	U	950	3800
C10-C28		650	U	650	3800

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	73		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V9**

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-277044	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276929	Lab File ID:	05120007.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	05/12/2015 1133			Final Weight/Volume:	1 mL
Prep Date:	05/11/2015 1517			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		4100		970	3900
C10-C28		3200	J	660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	74		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W0**

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080018.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/08/2015 1427			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		980	U	980	3900
C10-C28		670	U	670	3900

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W1**

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080019.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	05/08/2015 1452			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		4200		980	3900
C10-C28		1400	J	670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	71		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080021.D
Dilution:	1.0			Initial Weight/Volume:	31.3 g
Analysis Date:	05/08/2015 1604			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		960	U	960	3900
C10-C28		650	U	650	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	73		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W3**

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080022.D
Dilution:	1.0			Initial Weight/Volume:	31.8 g
Analysis Date:	05/08/2015 1628			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		960	U	960	3800
C10-C28		650	U	650	3800

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W4**

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080023.D
Dilution:	1.0			Initial Weight/Volume:	30.5 g
Analysis Date:	05/08/2015 1653			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3100	J	1000	4000
C10-C28		1400	J	680	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	79		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080024.D
Dilution:	1.0			Initial Weight/Volume:	31.3 g
Analysis Date:	05/08/2015 1717			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		960	U	960	3900
C10-C28		650	U	650	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	69		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W6**

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080025.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	05/08/2015 1741			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		980	U	980	3900
C10-C28		670	U	670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	74		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080026.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	05/08/2015 1805			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		960	U	960	3900
C10-C28		660	U	660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	75		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-276162	Lab File ID:	05080027.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/08/2015 1829			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		3700	J	1000	4000
C10-C28		1600	J	680	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	77		49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V6**

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0010			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	96
Acenaphthylene		8.7	U	8.7	96
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.1	U	3.1	14
Benzo[a]pyrene		6.2	U	6.2	14
Benzo[b]fluoranthene		4.1	U	4.1	14
Benzo[g,h,i]perylene		6.9	U	6.9	29
Benzo[k]fluoranthene		3.8	U	3.8	14
Chrysene		4.7	U	4.7	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		13	U	13	39
Fluorene		5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	96
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	92		72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V7**

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	32.1 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0142			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.9	U	8.9	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	39
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	82		72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0212			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	96
Acenaphthylene		8.6	U	8.6	96
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.1	U	3.1	14
Benzo[a]pyrene		6.2	U	6.2	14
Benzo[b]fluoranthene		4.0	U	4.0	14
Benzo[g,h,i]perylene		6.9	U	6.9	29
Benzo[k]fluoranthene		3.8	U	3.8	14
Chrysene		4.7	U	4.7	38
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		12	U	12	38
Fluorene		5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	96
Phenanthrene		12	U	12	38
Pyrene		12	U	12	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	87		72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V9**

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	30.5 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0243			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.9	U	9.9	99
Acenaphthylene		8.9	U	8.9	99
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.2	U	4.2	15
Benzo[g,h,i]perylene		7.1	U	7.1	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	40
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	40
Fluorene		5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	99
Phenanthrene		12	U	12	40
Pyrene		12	U	12	40

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W0**

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.0 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0313			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.8	U	8.8	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	29
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W1**

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	30.9 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0344			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.9	U	8.9	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	39
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0445			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

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

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W3**

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.2 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0515			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

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

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W4**

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.3 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0546			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.7	U	9.7	97
Acenaphthylene		8.8	U	8.8	97
Anthracene		3.0	U	3.0	19
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.2	U	6.2	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.0	U	7.0	29
Benzo[k]fluoranthene		3.8	U	3.8	15
Chrysene		4.7	U	4.7	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		13	U	13	39
Fluorene		5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	97
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0616			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.8	U	8.8	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	29
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.7	U	4.7	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	29
Indeno[1,2,3-cd]pyrene		12	U	12	29
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W6**

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0647			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.9	U	9.9	99
Acenaphthylene		8.9	U	8.9	99
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	40
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	40
Fluorene		5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	99
Phenanthrene		12	U	12	40
Pyrene		12	U	12	40

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.9 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0717			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.5	U	9.5	95
Acenaphthylene		8.5	U	8.5	95
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.0	U	3.0	14
Benzo[a]pyrene		6.1	U	6.1	14
Benzo[b]fluoranthene		4.0	U	4.0	14
Benzo[g,h,i]perylene		6.8	U	6.8	28
Benzo[k]fluoranthene		3.7	U	3.7	14
Chrysene		4.6	U	4.6	38
Dibenzo(a,h)anthracene		10	U	10	28
Fluoranthene		12	U	12	38
Fluorene		5.0	U	5.0	28
Indeno[1,2,3-cd]pyrene		11	U	11	28
Naphthalene		11	U	11	95
Phenanthrene		11	U	11	38
Pyrene		11	U	11	38

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-276150	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	4 mL
Analysis Date:	05/08/2015 0748			Injection Volume:	20 uL
Prep Date:	05/06/2015 1040			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.9	U	8.9	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.1	U	3.1	15
Benzo[a]pyrene		6.3	U	6.3	15
Benzo[b]fluoranthene		4.1	U	4.1	15
Benzo[g,h,i]perylene		7.1	U	7.1	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		4.8	U	4.8	39
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	39
Fluorene		5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	98
Phenanthrene		12	U	12	39
Pyrene		12	U	12	39

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V6

Lab Sample ID: 280-68739-1
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/06/2015 1930			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7260	X	1.5	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		2.3		0.66	1.0
Barium		52.8	X	0.076	0.50
Beryllium		0.30		0.033	0.20
Cadmium		0.041	U	0.041	0.20
Calcium		4810	X	14.0	49.8
Chromium		8.5	X	0.058	0.20
Cobalt		6.8	X	0.10	1.0
Copper		16.2		0.22	1.0
Iron		17800	X	3.8	5.0
Lead		3.7		0.27	0.50
Manganese		253	X	0.10	1.0
Molybdenum		0.29	B	0.26	2.0
Potassium		1150		40.9	299
Selenium		0.86	U	0.86	1.0
Silver		0.16	U	0.16	0.20
Vanadium		40.1	X	0.094	2.0
Zinc		34.5	X	0.40	1.0

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/07/2015 1333			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.3	B N	0.98	2.0
Magnesium		3790	X	3.7	19.9
Nickel		10.1		0.12	4.0
Silicon		249	N	5.6	10
Sodium		271		58.8	120

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	05/06/2015 2143			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0064	U	0.0064	0.020

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6V7

Lab Sample ID: 280-68739-2
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/06/2015 1940
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276374
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26d050615.asc
Initial Weight/Volume: 1.08 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6800	X	1.5	4.9
Antimony		0.37	U	0.37	0.58
Arsenic		2.3		0.64	0.97
Barium		58.0	X	0.074	0.49
Beryllium		0.28		0.032	0.19
Cadmium		0.040	U	0.040	0.19
Calcium		5040	X	13.7	48.7
Chromium		7.3	X	0.057	0.19
Cobalt		6.5	X	0.097	0.97
Copper		16.1		0.21	0.97
Iron		17800	X	3.7	4.9
Lead		4.6		0.26	0.49
Manganese		245	X	0.097	0.97
Molybdenum		0.25	U	0.25	1.9
Potassium		1270		40.0	292
Selenium		0.84	U	0.84	0.97
Silver		0.16	U	0.16	0.19
Vanadium		40.3	X	0.092	1.9
Zinc		35.9	X	0.39	0.97

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/07/2015 1343
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276595
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26a050715a.asc
Initial Weight/Volume: 1.08 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.1	B	0.96	1.9
Magnesium		3410	X	3.6	19.5
Nickel		8.6		0.12	3.9
Silicon		205	N	5.5	9.7
Sodium		253		57.5	117

7471A Mercury (CVAA)

Analysis Method: 7471A
Prep Method: 7471A
Dilution: 1.0
Analysis Date: 05/06/2015 2150
Prep Date: 05/06/2015 1500

Analysis Batch: 280-276397
Prep Batch: 280-276198

Instrument ID: MT_033
Lab File ID: 150506af.TXT
Initial Weight/Volume: 0.55 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0063	U	0.0063	0.020

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid
% Moisture:

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/06/2015 1943			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6340	X	1.3	4.1
Antimony		0.31	U	0.31	0.49
Arsenic		1.9		0.54	0.82
Barium		52.6	X	0.063	0.41
Beryllium		0.27		0.027	0.16
Cadmium		0.034	U	0.034	0.16
Calcium		4120	X	11.6	41.1
Chromium		6.9	X	0.048	0.16
Cobalt		7.0	X	0.082	0.82
Copper		15.2		0.18	0.82
Iron		17700	X	3.1	4.1
Lead		3.2		0.22	0.41
Manganese		256	X	0.082	0.82
Molybdenum		0.21	U	0.21	1.6
Potassium		1080		33.7	247
Selenium		0.71	U	0.71	0.82
Silver		0.13	U	0.13	0.16
Vanadium		38.3	X	0.077	1.6
Zinc		31.7	X	0.33	0.82

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/07/2015 1346			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.84	B	0.81	1.6
Magnesium		3340	X	3.0	16.5
Nickel		8.8		0.10	3.3
Silicon		200	N	4.7	8.2
Sodium		243		48.5	98.7

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	05/06/2015 2152			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6V9**

Lab Sample ID: 280-68739-4
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/06/2015 1946			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6840	X	1.3	4.3
Antimony		0.32	U	0.32	0.51
Arsenic		2.0		0.56	0.85
Barium		54.0	X	0.065	0.43
Beryllium		0.29		0.028	0.17
Cadmium		0.035	U	0.035	0.17
Calcium		5250	X	12.0	42.6
Chromium		6.5	X	0.049	0.17
Cobalt		7.3	X	0.085	0.85
Copper		17.9		0.19	0.85
Iron		17800	X	3.2	4.3
Lead		3.6		0.23	0.43
Manganese		258	X	0.085	0.85
Molybdenum		0.22	U	0.22	1.7
Potassium		1120		35.0	256
Selenium		0.73	U	0.73	0.85
Silver		0.14	U	0.14	0.17
Vanadium		38.3	X	0.080	1.7
Zinc		33.8	X	0.34	0.85

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.18 g
Analysis Date:	05/07/2015 1348			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.93	B	0.84	1.7
Magnesium		3830	X	3.2	17.1
Nickel		9.5		0.10	3.4
Silicon		175	N	4.8	8.5
Sodium		315		50.3	102

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Analysis Date:	05/06/2015 2154			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0067	B	0.0057	0.017

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W0

Lab Sample ID: 280-68739-5
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	05/06/2015 1948			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5660	X	1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		2.2		0.63	0.96
Barium		48.2	X	0.073	0.48
Beryllium		0.23		0.032	0.19
Cadmium		0.039	U	0.039	0.19
Calcium		6150	X	13.5	47.9
Chromium		6.8	X	0.056	0.19
Cobalt		6.5	X	0.096	0.96
Copper		15.5		0.21	0.96
Iron		16400	X	3.6	4.8
Lead		3.6		0.26	0.48
Manganese		233	X	0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Potassium		956		39.2	287
Selenium		0.82	U	0.82	0.96
Silver		0.15	U	0.15	0.19
Vanadium		38.6	X	0.090	1.9
Zinc		34.3	X	0.38	0.96

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	05/07/2015 1351			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.94	U	0.94	1.9
Magnesium		3140	X	3.5	19.1
Nickel		8.1		0.12	3.8
Silicon		177	N	5.4	9.6
Sodium		311		56.5	115

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.55 g
Analysis Date:	05/06/2015 2157			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W1

Lab Sample ID: 280-68739-6
Client Matrix: Solid
% Moisture: 1.4

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.16 g
Analysis Date:	05/06/2015 2002			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9510	X	1.4	4.4
Antimony		0.33	U	0.33	0.52
Arsenic		3.4		0.58	0.87
Barium		83.3	X	0.066	0.44
Beryllium		0.36		0.029	0.17
Cadmium		0.042	B	0.036	0.17
Calcium		4250	X	12.3	43.7
Chromium		13.1	X	0.051	0.17
Cobalt		7.3	X	0.087	0.87
Copper		18.1		0.19	0.87
Iron		18400	X	3.3	4.4
Lead		5.0		0.24	0.44
Manganese		344	X	0.087	0.87
Molybdenum		0.23	U	0.23	1.7
Potassium		1830		35.8	262
Selenium		0.75	U	0.75	0.87
Silver		0.14	U	0.14	0.17
Vanadium		37.9	X	0.082	1.7
Zinc		36.4	X	0.35	0.87

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.16 g
Analysis Date:	05/07/2015 1404			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.5	B	0.86	1.7
Magnesium		4150	X	3.2	17.5
Nickel		12.9		0.11	3.5
Silicon		212	N	4.9	8.7
Sodium		172		51.6	105

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	05/06/2015 2159			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0073	B	0.0063	0.020

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid
% Moisture: 0.5

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/06/2015 2004
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276374
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26d050615.asc
Initial Weight/Volume: 1.09 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5160	X	1.4	4.6
Antimony		0.35	U	0.35	0.55
Arsenic		1.9		0.61	0.92
Barium		58.5	X	0.070	0.46
Beryllium		0.20		0.030	0.18
Cadmium		0.038	U	0.038	0.18
Calcium		4910	X	13.0	46.1
Chromium		6.5	X	0.053	0.18
Cobalt		7.1	X	0.092	0.92
Copper		16.1		0.20	0.92
Iron		17500	X	3.5	4.6
Lead		2.5		0.25	0.46
Manganese		316	X	0.092	0.92
Molybdenum		0.24	U	0.24	1.8
Potassium		872		37.8	277
Selenium		0.79	U	0.79	0.92
Silver		0.15	U	0.15	0.18
Vanadium		41.4	X	0.087	1.8
Zinc		32.5	X	0.37	0.92

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/07/2015 1407
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276595
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26a050715a.asc
Initial Weight/Volume: 1.09 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.90	U	0.90	1.8
Magnesium		3640	X	3.4	18.4
Nickel		9.0		0.11	3.7
Silicon		130	N	5.2	9.2
Sodium		308		54.4	111

7471A Mercury (CVAA)

Analysis Method: 7471A
Prep Method: 7471A
Dilution: 1.0
Analysis Date: 05/06/2015 2201
Prep Date: 05/06/2015 1500

Analysis Batch: 280-276397
Prep Batch: 280-276198

Instrument ID: MT_033
Lab File ID: 150506af.TXT
Initial Weight/Volume: 0.53 g
Final Weight/Volume: 50 mL

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W3

Lab Sample ID: 280-68739-8
Client Matrix: Solid
% Moisture: 1.6

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/06/2015 2007			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7350	X	1.5	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		2.6		0.66	1.0
Barium		60.2	X	0.076	0.50
Beryllium		0.27		0.033	0.20
Cadmium		0.041	U	0.041	0.20
Calcium		6220	X	14.0	49.8
Chromium		9.8	X	0.058	0.20
Cobalt		6.7	X	0.10	1.0
Copper		15.2		0.22	1.0
Iron		17300	X	3.8	5.0
Lead		3.6		0.27	0.50
Manganese		295	X	0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Potassium		1280		40.9	299
Selenium		0.86	U	0.86	1.0
Silver		0.16	U	0.16	0.20
Vanadium		39.4	X	0.094	2.0
Zinc		36.1	X	0.40	1.0

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	05/07/2015 1410			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.1	B	0.98	2.0
Magnesium		3980	X	3.7	19.9
Nickel		11.0		0.12	4.0
Silicon		233	N	5.6	10
Sodium		278		58.8	120

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.55 g
Analysis Date:	05/06/2015 2211			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W4

Lab Sample ID: 280-68739-9
Client Matrix: Solid
% Moisture: 1.5

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	05/06/2015 2010			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8210	X	1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		3.0		0.60	0.91
Barium		58.5	X	0.069	0.45
Beryllium		0.30		0.030	0.18
Cadmium		0.037	U	0.037	0.18
Calcium		5520	X	12.8	45.3
Chromium		9.5	X	0.053	0.18
Cobalt		7.1	X	0.091	0.91
Copper		17.2		0.20	0.91
Iron		18300	X	3.4	4.5
Lead		4.5		0.24	0.45
Manganese		290	X	0.091	0.91
Molybdenum		0.24	U	0.24	1.8
Potassium		1450		37.1	272
Selenium		0.78	U	0.78	0.91
Silver		0.14	U	0.14	0.18
Vanadium		40.5	X	0.085	1.8
Zinc		38.7	X	0.36	0.91

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Analysis Date:	05/07/2015 1412			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.2	B	0.89	1.8
Magnesium		4000	X	3.4	18.1
Nickel		10.9		0.11	3.6
Silicon		239	N	5.1	9.1
Sodium		299		53.5	109

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.56 g
Analysis Date:	05/06/2015 2213			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0083	B	0.0060	0.018

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	05/06/2015 2013			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		1710	X	1.6	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		0.73	B	0.66	1.0
Barium		17.3	X	0.076	0.50
Beryllium		0.11	B	0.033	0.20
Cadmium		0.041	U	0.041	0.20
Calcium		2850	X	14.2	50.2
Chromium		1.0	X	0.058	0.20
Cobalt		5.6	X	0.10	1.0
Copper		9.6		0.22	1.0
Iron		12000	X	3.8	5.0
Lead		1.6		0.27	0.50
Manganese		116	X	0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Potassium		274	B	41.2	301
Selenium		0.86	U	0.86	1.0
Silver		0.16	U	0.16	0.20
Vanadium		18.6	X	0.094	2.0
Zinc		18.8	X	0.40	1.0

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	05/07/2015 1415			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.98	U	0.98	2.0
Magnesium		2180	X	3.7	20.1
Nickel		4.1		0.12	4.0
Silicon		63.8	N	5.7	10.0
Sodium		181		59.2	121

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.51 g
Analysis Date:	05/06/2015 2215			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W6

Lab Sample ID: 280-68739-11
Client Matrix: Solid
% Moisture: 0.7

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/06/2015 2015
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276374
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26d050615.asc
Initial Weight/Volume: 1.18 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4800	X	1.3	4.3
Antimony		0.32	U	0.32	0.51
Arsenic		1.9		0.56	0.85
Barium		37.5	X	0.065	0.43
Beryllium		0.19		0.028	0.17
Cadmium		0.035	U	0.035	0.17
Calcium		5810	X	12.0	42.7
Chromium		7.0	X	0.050	0.17
Cobalt		7.2	X	0.085	0.85
Copper		17.0		0.19	0.85
Iron		18400	X	3.2	4.3
Lead		2.7		0.23	0.43
Manganese		245	X	0.085	0.85
Molybdenum		0.22	U	0.22	1.7
Potassium		821		35.0	256
Selenium		0.73	U	0.73	0.85
Silver		0.14	U	0.14	0.17
Vanadium		45.3	X	0.080	1.7
Zinc		34.8	X	0.34	0.85

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/07/2015 1418
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276595
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26a050715a.asc
Initial Weight/Volume: 1.18 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.84	U	0.84	1.7
Magnesium		3630	X	3.2	17.1
Nickel		8.9		0.11	3.4
Silicon		145	N	4.8	8.5
Sodium		234		50.4	102

7471A Mercury (CVAA)

Analysis Method: 7471A
Prep Method: 7471A
Dilution: 1.0
Analysis Date: 05/06/2015 2217
Prep Date: 05/06/2015 1500

Analysis Batch: 280-276397
Prep Batch: 280-276198

Instrument ID: MT_033
Lab File ID: 150506af.TXT
Initial Weight/Volume: 0.51 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0066	U	0.0066	0.020

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: J1V6W7

Lab Sample ID: 280-68739-12
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-276374	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	05/06/2015 2018			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8000	X	1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		2.9		0.64	0.98
Barium		77.3	X	0.074	0.49
Beryllium		0.30		0.032	0.20
Cadmium		0.040	U	0.040	0.20
Calcium		4220	X	13.8	48.8
Chromium		10.4	X	0.057	0.20
Cobalt		7.1	X	0.098	0.98
Copper		15.7		0.21	0.98
Iron		18000	X	3.7	4.9
Lead		4.1		0.26	0.49
Manganese		290	X	0.098	0.98
Molybdenum		0.25	U	0.25	2.0
Potassium		1350		40.0	293
Selenium		0.84	U	0.84	0.98
Silver		0.16	U	0.16	0.20
Vanadium		42.1	X	0.092	2.0
Zinc		36.7	X	0.39	0.98

Analysis Method:	6010B	Analysis Batch:	280-276595	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	05/07/2015 1421			Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.0	B	0.96	2.0
Magnesium		3970	X	3.6	19.5
Nickel		11.0		0.12	3.9
Silicon		264	N	5.5	9.8
Sodium		208		57.6	117

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	05/06/2015 2220			Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0065	B	0.0059	0.018

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid
% Moisture: 3.5

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

6010B Metals (ICP)

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/06/2015 2020
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276374
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26d050615.asc
Initial Weight/Volume: 1.09 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10200	X	1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		3.1		0.63	0.95
Barium		84.8	X	0.072	0.48
Beryllium		0.36		0.031	0.19
Cadmium		0.039	U	0.039	0.19
Calcium		4040	X	13.4	47.5
Chromium		14.3	X	0.055	0.19
Cobalt		7.9	X	0.095	0.95
Copper		19.5		0.21	0.95
Iron		19200	X	3.6	4.8
Lead		5.4		0.26	0.48
Manganese		366	X	0.095	0.95
Molybdenum		0.25	U	0.25	1.9
Potassium		1960		39.0	285
Selenium		0.82	U	0.82	0.95
Silver		0.15	U	0.15	0.19
Vanadium		38.7	X	0.089	1.9
Zinc		38.6	X	0.38	0.95

Analysis Method: 6010B
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 05/07/2015 1423
Prep Date: 05/06/2015 0830

Analysis Batch: 280-276595
Prep Batch: 280-276084

Instrument ID: MT_026
Lab File ID: 26a050715a.asc
Initial Weight/Volume: 1.09 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.4	B	0.93	1.9
Magnesium		4620	X	3.5	19.0
Nickel		14.3		0.12	3.8
Silicon		192	N	5.4	9.5
Sodium		177		56.1	114

7471A Mercury (CVAA)

Analysis Method: 7471A
Prep Method: 7471A
Dilution: 1.0
Analysis Date: 05/06/2015 2222
Prep Date: 05/06/2015 1500

Analysis Batch: 280-276397
Prep Batch: 280-276198

Instrument ID: MT_033
Lab File ID: 150506af.TXT
Initial Weight/Volume: 0.56 g
Final Weight/Volume: 50 mL

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6V6**

Lab Sample ID: 280-68739-1
Client Matrix: Solid

Date Sampled: 04/30/2015 1156
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6V7**

Lab Sample ID: 280-68739-2
Client Matrix: Solid

Date Sampled: 04/30/2015 1209
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.0		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6V8**

Lab Sample ID: 280-68739-3
Client Matrix: Solid

Date Sampled: 04/30/2015 1203
Date Received: 05/05/2015 1005

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

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6V9**

Lab Sample ID: 280-68739-4
Client Matrix: Solid

Date Sampled: 04/30/2015 1216
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.61		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W0**

Lab Sample ID: 280-68739-5
Client Matrix: Solid

Date Sampled: 04/30/2015 1104
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W1**

Lab Sample ID: 280-68739-6
Client Matrix: Solid

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W2**

Lab Sample ID: 280-68739-7
Client Matrix: Solid

Date Sampled: 04/30/2015 1055
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.51		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W3**

Lab Sample ID: 280-68739-8
Client Matrix: Solid

Date Sampled: 04/30/2015 1041
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W4**

Lab Sample ID: 280-68739-9
Client Matrix: Solid

Date Sampled: 04/30/2015 1048
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W5**

Lab Sample ID: 280-68739-10
Client Matrix: Solid

Date Sampled: 04/30/2015 1030
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.42		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W6**

Lab Sample ID: 280-68739-11
Client Matrix: Solid

Date Sampled: 04/30/2015 1016
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.74		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W7**

Lab Sample ID: 280-68739-12
Client Matrix: Solid

Date Sampled: 04/30/2015 1023
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.55		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

General Chemistry

Client Sample ID: **J1V6W8**

Lab Sample ID: 280-68739-13
Client Matrix: Solid

Date Sampled: 04/30/2015 1111
Date Received: 05/05/2015 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-276455 Analysis Date: 05/07/2015 1137 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec	DBFM %Rec
280-68739-1	J1V6V6	132	102	99	119
280-68739-2	J1V6V7	118	99	98	111
280-68739-3	J1V6V8	103	100	94	107
280-68739-4	J1V6V9	142*	123	117	130*
280-68739-5	J1V6W0	104	101	94	109
280-68739-6	J1V6W1	110	101	97	110
280-68739-7	J1V6W2	97	117	108	101
280-68739-8	J1V6W3	107	101	96	108
280-68739-9	J1V6W4	105	101	97	109
280-68739-10	J1V6W5	108	102	94	109
280-68739-11	J1V6W6	104	104	97	109
280-68739-12	J1V6W7	140	109	113	131*
280-68739-13	J1V6W8	107	103	98	109
MB 280-276099/1-A		123	105	102	113
MB 280-276337/1-A		101	101	93	107
LCS 280-276099/2-A		86	100	92	85
LCS 280-276337/2-A		105	102	96	109
280-68739-1 MS	J1V6V6 MS	89	102	97	91
280-68739-13 MS	J1V6W8 MS	104	99	99	106
280-68739-1 MSD	J1V6V6 MSD	88	104	98	90
280-68739-13 MSD	J1V6W8 MSD	109	102	101	109

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	58-140
TOL = Toluene-d8 (Surr)	80-126
BFB = 4-Bromofluorobenzene (Surr)	76-127
DBFM = Dibromofluoromethane (Surr)	75-121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-68739-1	J1V6V6	83	76
280-68739-2	J1V6V7	84	74
280-68739-3	J1V6V8	79	71
280-68739-4	J1V6V9	84	67
280-68739-5	J1V6W0	78	76
280-68739-6	J1V6W1	82	75
280-68739-7	J1V6W2	76	67
280-68739-8	J1V6W3	75	67
280-68739-9	J1V6W4	80	72
280-68739-10	J1V6W5	82	65
280-68739-11	J1V6W6	85	76
280-68739-12	J1V6W7	79	72
280-68739-13	J1V6W8	79	72
MB 280-276203/1-A		88	79
LCS 280-276203/2-A		82	76
280-68739-2 MS	J1V6V7 MS	82	71
280-68739-2 MSD	J1V6V7 MSD	75	66

Surrogate	Acceptance Limits
DCB = Decachlorobiphenyl	59-130
TCX = Tetrachloro-m-xylene	53-128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate Recovery Report

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

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH %Rec
280-68739-1	J1V6V6	76
280-68739-2	J1V6V7	72
280-68739-3	J1V6V8	73
280-68739-4	J1V6V9	74
280-68739-5	J1V6W0	72
280-68739-6	J1V6W1	71
280-68739-7	J1V6W2	73
280-68739-8	J1V6W3	70
280-68739-9	J1V6W4	79
280-68739-10	J1V6W5	69
280-68739-11	J1V6W6	74
280-68739-12	J1V6W7	75
280-68739-13	J1V6W8	77
MB 280-276162/1-A		73
MB 280-276929/1-A		75
LCS 280-276162/2-A		66
LCS 280-276929/2-A		72
LCSD 280-276162/18-A		73
280-68739-4 MS	J1V6V9 MS	69
280-68739-13 MS	J1V6W8 MS	76
280-68739-4 MSD	J1V6V9 MSD	76
280-68739-13 MSD	J1V6W8 MSD	75

Surrogate	Acceptance Limits
OTPH = o-Terphenyl	49-115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate Recovery Report

8310 PAHs (HPLC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TPH1 %Rec
280-68739-1	J1V6V6	92
280-68739-2	J1V6V7	82
280-68739-3	J1V6V8	87
280-68739-4	J1V6V9	91
280-68739-5	J1V6W0	93
280-68739-6	J1V6W1	93
280-68739-7	J1V6W2	90
280-68739-8	J1V6W3	90
280-68739-9	J1V6W4	94
280-68739-10	J1V6W5	90
280-68739-11	J1V6W6	90
280-68739-12	J1V6W7	93
280-68739-13	J1V6W8	95
MB 280-276150/1-A		85
LCS 280-276150/2-A		83
280-68739-1 MS	J1V6V6 MS	89
280-68739-1 MSD	J1V6V6 MSD	83

Surrogate	Acceptance Limits
TPH = Terphenyl-d14 (SUR)	72-115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276099

Method: 8260B
Preparation: 5035

Lab Sample ID:	MB 280-276099/1-A	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Client Matrix:	Solid	Prep Batch:	280-276099	Lab File ID:	G3633.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/05/2015 2000	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/05/2015 1800				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	5.4	U	5.4	20
Benzene	0.47	U	0.47	5.0
Bromodichloromethane	0.22	U	0.22	5.0
Bromoform	0.23	U	0.23	5.0
Bromomethane	0.50	U	0.50	10
2-Butanone (MEK)	1.8	U	1.8	10
Carbon disulfide	0.42	U	0.42	5.0
Carbon tetrachloride	0.63	U	0.63	5.0
Chlorobenzene	0.54	U	0.54	5.0
Dibromochloromethane	0.57	U	0.57	5.0
Chloroethane	0.89	U	0.89	10
Chloroform	0.29	U	0.29	5.0
Chloromethane	0.77	U	0.77	10
1,1-Dichloroethane	0.21	U	0.21	5.0
1,2-Dichloroethane	0.70	U	0.70	5.0
1,1-Dichloroethene	0.59	U	0.59	5.0
1,2-Dichloroethene, Total	0.39	U	0.39	5.0
1,2-Dichloropropane	0.55	U	0.55	5.0
cis-1,3-Dichloropropene	1.3	U	1.3	5.0
trans-1,3-Dichloropropene	0.67	U	0.67	5.0
Ethylbenzene	0.67	U	0.67	5.0
2-Hexanone	4.9	U	4.9	20
Methylene Chloride	1.6	U	1.6	5.0
4-Methyl-2-pentanone (MIBK)	4.4	U	4.4	10
Styrene	0.63	U	0.63	5.0
1,1,2,2-Tetrachloroethane	0.61	U	0.61	5.0
Tetrachloroethene	0.59	U	0.59	5.0
Toluene	0.69	U	0.69	5.0
1,1,1-Trichloroethane	0.52	U	0.52	5.0
1,1,2-Trichloroethane	0.88	U	0.88	5.0
Trichloroethene	0.23	U	0.23	5.0
Vinyl chloride	1.3	U	1.3	5.0
Xylenes, Total	0.61	U	0.61	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	123	58 - 140
Toluene-d8 (Surr)	105	80 - 126
4-Bromofluorobenzene (Surr)	102	76 - 127
Dibromofluoromethane (Surr)	113	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank TICs- Batch: 280-276099

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Unknown	5.29	6.24	N J
	Unknown	6.68	31.3	N J
	Unknown	9.69	7.30	N J
141-32-2	2-Propenoic acid, butyl ester	10.79	7.20	N J
590-01-2	Propanoic acid, butyl ester	10.89	8.22	N J
124-13-0	Octanal	12.20	5.56	N J
	Unknown	13.31	10.9	N J
103-09-3	Acetic acid, 2-ethylhexyl ester	13.58	36.0	N J
1000245-68-1	4-(Prop-2-enoyloxy)octane	14.58	6.51	N J
1000139-90-4	1-Butoxy-2-ethylhexane	14.64	5.71	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Control Sample - Batch: 280-276099

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 280-276099/2-A	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Client Matrix:	Solid	Prep Batch:	280-276099	Lab File ID:	G3632.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/05/2015 1938	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/05/2015 1800				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	200	185	93	65 - 150	
Benzene	50.0	52.5	105	75 - 135	
Bromodichloromethane	50.0	60.2	120	73 - 135	
Bromoform	50.0	57.8	116	77 - 135	
Bromomethane	50.0	27.7	55	52 - 135	
2-Butanone (MEK)	200	168	84	45 - 177	
Carbon disulfide	50.0	50.4	101	45 - 150	
Carbon tetrachloride	50.0	65.7	131	69 - 138	
Chlorobenzene	50.0	48.4	97	78 - 135	
Dibromochloromethane	50.0	53.6	107	77 - 135	
Chloroethane	50.0	34.5	69	51 - 145	
Chloroform	50.0	56.6	113	73 - 123	
Chloromethane	50.0	24.0	48	41 - 138	
1,1-Dichloroethane	50.0	52.4	105	70 - 135	
1,2-Dichloroethane	50.0	58.3	117	69 - 135	
1,1-Dichloroethene	50.0	48.9	98	79 - 135	
1,2-Dichloroethene, Total	100	104	104	78 - 135	
1,2-Dichloropropane	50.0	50.1	100	72 - 121	
cis-1,3-Dichloropropene	50.0	47.3	95	71 - 135	
trans-1,3-Dichloropropene	50.0	62.8	126	71 - 135	
Ethylbenzene	50.0	54.0	108	73 - 125	
2-Hexanone	200	161	81	67 - 150	
Methylene Chloride	50.0	47.0	94	76 - 136	
4-Methyl-2-pentanone (MIBK)	200	183	91	69 - 150	
Styrene	50.0	49.6	99	76 - 135	
1,1,2,2-Tetrachloroethane	50.0	44.7	89	65 - 135	
Tetrachloroethene	50.0	51.9	104	76 - 135	
Toluene	50.0	58.9	118	77 - 122	
1,1,1-Trichloroethane	50.0	58.3	117	70 - 135	
1,1,2-Trichloroethane	50.0	55.8	112	78 - 135	
Trichloroethene	50.0	59.1	118	77 - 135	
Vinyl chloride	50.0	29.9	60	43 - 145	
Xylenes, Total	100	105	105	76 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	58 - 140
Toluene-d8 (Surr)	100	80 - 126
4-Bromofluorobenzene (Surr)	92	76 - 127
Dibromofluoromethane (Surr)	85	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276099

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-68739-1	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Client Matrix:	Solid	Prep Batch:	280-276099	Lab File ID:	G3658.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.638 g
Analysis Date:	05/06/2015 0516			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1156				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68739-1	Analysis Batch:	280-276076	Instrument ID:	VMS_G
Client Matrix:	Solid	Prep Batch:	280-276099	Lab File ID:	G3643.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.721 g
Analysis Date:	05/05/2015 2343			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1156				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	88	108	65 - 150	17	28		
Benzene	91	105	75 - 135	11	20		
Bromodichloromethane	114	122	73 - 135	4	20		
Bromoform	97	109	77 - 135	9	20		
Bromomethane	57	76	52 - 135	26	22		*
2-Butanone (MEK)	94	97	45 - 177	0	32		
Carbon disulfide	82	98	45 - 150	15	24		
Carbon tetrachloride	108	127	69 - 138	13	20		
Chlorobenzene	74	95	78 - 135	21	20	T	*
Dibromochloromethane	94	106	77 - 135	9	20		
Chloroethane	66	86	51 - 145	23	22		*
Chloroform	106	117	73 - 123	7	20		
Chloromethane	46	62	41 - 138	25	25		
1,1-Dichloroethane	95	106	70 - 135	8	20		
1,2-Dichloroethane	117	123	69 - 135	2	20		
1,1-Dichloroethene	81	97	79 - 135	16	20		
1,2-Dichloroethene, Total	90	104	78 - 135	11	20		
1,2-Dichloropropane	93	105	72 - 121	9	20		
cis-1,3-Dichloropropene	76	89	71 - 135	13	20		
trans-1,3-Dichloropropene	109	123	71 - 135	8	20		
Ethylbenzene	70	98	73 - 125	30	20	T	*
2-Hexanone	71	93	67 - 150	24	29		
Methylene Chloride	89	95	76 - 136	4	21		
4-Methyl-2-pentanone (MIBK)	87	108	69 - 150	18	25		
Styrene	65	90	76 - 135	28	20	T	*
1,1,2,2-Tetrachloroethane	70	86	65 - 135	17	21		
Tetrachloroethene	68	92	76 - 135	27	20	T	*
Toluene	94	115	77 - 122	18	20		
1,1,1-Trichloroethane	105	120	70 - 135	10	20		
1,1,2-Trichloroethane	103	113	78 - 135	6	20		
Trichloroethene	103	118	77 - 135	11	20		
Vinyl chloride	54	71	43 - 145	24	24		
Xylenes, Total	69	97	76 - 135	31	20	T	*

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	88	58 - 140
Toluene-d8 (Surr)	102	104	80 - 126
4-Bromofluorobenzene (Surr)	97	98	76 - 127
Dibromofluoromethane (Surr)	91	90	75 - 121

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276099

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-68739-1	Units:	ug/Kg	MSD Lab Sample ID:	280-68739-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/06/2015 0516			Analysis Date:	05/05/2015 2343
Prep Date:	04/30/2015 1156			Prep Date:	04/30/2015 1156
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Acetone	5.0	U	385	373	340		403	
Benzene	0.44	U	96.3	93.4	87.5		97.9	
Bromodichloromethane	0.21	U	96.3	93.4	110		114	
Bromoform	0.22	U	96.3	93.4	93.1		101	
Bromomethane	0.47	U	96.3	93.4	54.8		71.1	*
2-Butanone (MEK)	1.7	U	385	373	362		363	
Carbon disulfide	0.39	U	96.3	93.4	78.6		91.3	
Carbon tetrachloride	0.59	U	96.3	93.4	104		119	
Chlorobenzene	0.51	U	96.3	93.4	71.4	T	88.6	*
Dibromochloromethane	0.53	U	96.3	93.4	90.3		99.0	
Chloroethane	0.84	U	96.3	93.4	63.9		80.5	*
Chloroform	0.27	U	96.3	93.4	102		109	
Chloromethane	0.72	U	96.3	93.4	44.7		57.7	
1,1-Dichloroethane	0.20	U	96.3	93.4	91.2		98.9	
1,2-Dichloroethane	0.66	U	96.3	93.4	112		115	
1,1-Dichloroethene	0.55	U	96.3	93.4	77.7		90.9	
1,2-Dichloroethene, Total	0.37	U	193	187	174		195	
1,2-Dichloropropane	0.52	U	96.3	93.4	89.6		98.1	
cis-1,3-Dichloropropene	1.2	U	96.3	93.4	73.1		83.0	
trans-1,3-Dichloropropene	0.63	U	96.3	93.4	105		115	
Ethylbenzene	0.63	U	96.3	93.4	67.5	T	91.3	*
2-Hexanone	4.6	U	385	373	274		348	
Methylene Chloride	1.5	U	96.3	93.4	85.5		88.8	
4-Methyl-2-pentanone (MIBK)	4.1	U	385	373	335		403	
Styrene	0.59	U	96.3	93.4	63.1	T	84.0	*
1,1,2,2-Tetrachloroethane	0.57	U	96.3	93.4	67.8		80.3	
Tetrachloroethene	0.55	U	96.3	93.4	65.6	T	85.8	*
Toluene	0.65	U	96.3	93.4	90.3		108	
1,1,1-Trichloroethane	0.49	U	96.3	93.4	101		112	
1,1,2-Trichloroethane	0.83	U	96.3	93.4	99.2		105	
Trichloroethene	0.22	U	96.3	93.4	98.9		111	
Vinyl chloride	1.3	U	96.3	93.4	52.1		66.2	
Xylenes, Total	0.57	U	193	187	133	T	182	*

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276337

Method: 8260B
Preparation: 5035

Lab Sample ID:	MB 280-276337/1-A	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Client Matrix:	Solid	Prep Batch:	280-276337	Lab File ID:	J6570.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/07/2015 0720	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/07/2015 0731				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	6.22	J	5.4	20
Benzene	0.47	U	0.47	5.0
Bromodichloromethane	0.22	U	0.22	5.0
Bromoform	0.23	U	0.23	5.0
Bromomethane	0.50	U	0.50	10
2-Butanone (MEK)	1.8	U	1.8	10
Carbon disulfide	0.42	U	0.42	5.0
Carbon tetrachloride	0.63	U	0.63	5.0
Chlorobenzene	0.54	U	0.54	5.0
Dibromochloromethane	0.57	U	0.57	5.0
Chloroethane	0.89	U	0.89	10
Chloroform	0.29	U	0.29	5.0
Chloromethane	0.77	U	0.77	10
1,1-Dichloroethane	0.21	U	0.21	5.0
1,2-Dichloroethane	0.70	U	0.70	5.0
1,1-Dichloroethene	0.59	U	0.59	5.0
1,2-Dichloroethene, Total	0.39	U	0.39	5.0
1,2-Dichloropropane	0.55	U	0.55	5.0
cis-1,3-Dichloropropene	1.3	U	1.3	5.0
trans-1,3-Dichloropropene	0.67	U	0.67	5.0
Ethylbenzene	0.67	U	0.67	5.0
2-Hexanone	4.9	U	4.9	20
Methylene Chloride	1.6	U	1.6	5.0
4-Methyl-2-pentanone (MIBK)	4.4	U	4.4	10
Styrene	0.63	U	0.63	5.0
1,1,2,2-Tetrachloroethane	0.61	U	0.61	5.0
Tetrachloroethene	0.59	U	0.59	5.0
Toluene	0.69	U	0.69	5.0
1,1,1-Trichloroethane	0.52	U	0.52	5.0
1,1,2-Trichloroethane	0.88	U	0.88	5.0
Trichloroethene	0.23	U	0.23	5.0
Vinyl chloride	1.3	U	1.3	5.0
Xylenes, Total	0.61	U	0.61	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101	58 - 140
Toluene-d8 (Surr)	101	80 - 126
4-Bromofluorobenzene (Surr)	93	76 - 127
Dibromofluoromethane (Surr)	107	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank TICs- Batch: 280-276337

Cas Number	Analyte	RT	Est. Result (ug/	Qual
492-39-7	Cathine	4.93	15.9	N J
2919-23-5	Cyclobutanol	5.32	9.89	N J
	Unknown	6.73	20.0	J N
66-25-1	Hexanal	9.42	11.4	N J
142-96-1	n-Butyl ether	9.93	8.30	N J
590-01-2	Propanoic acid, butyl ester	10.40	7.80	N J
	Unknown	12.31	11.0	J N
	Unknown	12.68	28.5	J N
103-09-3	Acetic acid, 2-ethylhexyl ester	12.92	42.3	N J
105-68-0	1-Butanol, 3-methyl-, propanoate	13.98	24.9	N J

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Control Sample - Batch: 280-276337

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 280-276337/2-A	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Client Matrix:	Solid	Prep Batch:	280-276337	Lab File ID:	J6569.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/07/2015 0659	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/07/2015 0731				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	200	220	110	65 - 150	
Benzene	50.0	51.1	102	75 - 135	
Bromodichloromethane	50.0	54.4	109	73 - 135	
Bromoform	50.0	57.9	116	77 - 135	
Bromomethane	50.0	52.1	104	52 - 135	
2-Butanone (MEK)	200	214	107	45 - 177	
Carbon disulfide	50.0	49.9	100	45 - 150	
Carbon tetrachloride	50.0	59.5	119	69 - 138	
Chlorobenzene	50.0	53.0	106	78 - 135	
Dibromochloromethane	50.0	55.4	111	77 - 135	
Chloroethane	50.0	49.6	99	51 - 145	
Chloroform	50.0	53.9	108	73 - 123	
Chloromethane	50.0	49.0	98	41 - 138	
1,1-Dichloroethane	50.0	52.1	104	70 - 135	
1,2-Dichloroethane	50.0	54.8	110	69 - 135	
1,1-Dichloroethene	50.0	53.0	106	79 - 135	
1,2-Dichloroethene, Total	100	105	105	78 - 135	
1,2-Dichloropropane	50.0	49.4	99	72 - 121	
cis-1,3-Dichloropropene	50.0	51.4	103	71 - 135	
trans-1,3-Dichloropropene	50.0	56.6	113	71 - 135	
Ethylbenzene	50.0	55.2	110	73 - 125	
2-Hexanone	200	258	129	67 - 150	
Methylene Chloride	50.0	50.2	100	76 - 136	
4-Methyl-2-pentanone (MIBK)	200	226	113	69 - 150	
Styrene	50.0	51.1	102	76 - 135	
1,1,2,2-Tetrachloroethane	50.0	50.6	101	65 - 135	
Tetrachloroethene	50.0	54.0	108	76 - 135	
Toluene	50.0	52.0	104	77 - 122	
1,1,1-Trichloroethane	50.0	55.1	110	70 - 135	
1,1,2-Trichloroethane	50.0	53.7	107	78 - 135	
Trichloroethene	50.0	55.5	111	77 - 135	
Vinyl chloride	50.0	49.1	98	43 - 145	
Xylenes, Total	100	102	102	76 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	58 - 140
Toluene-d8 (Surr)	102	80 - 126
4-Bromofluorobenzene (Surr)	96	76 - 127
Dibromofluoromethane (Surr)	109	75 - 121

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276337

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-68739-13	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Client Matrix:	Solid	Prep Batch:	280-276337	Lab File ID:	J6582.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	4.077 g
Analysis Date:	05/07/2015 1147			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68739-13	Analysis Batch:	280-276328	Instrument ID:	VMS_J
Client Matrix:	Solid	Prep Batch:	280-276337	Lab File ID:	J6583.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	4.387 g
Analysis Date:	05/07/2015 1207			Final Weight/Volume:	5 mL
Prep Date:	04/30/2015 1111				5 mL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	90	115	65 - 150	16	28		
Benzene	108	89	75 - 135	26	20		*
Bromodichloromethane	112	101	73 - 135	18	20		
Bromoform	117	113	77 - 135	11	20		
Bromomethane	111	98	52 - 135	20	22		
2-Butanone (MEK)	125	167	45 - 177	22	32		
Carbon disulfide	116	86	45 - 150	37	24		*
Carbon tetrachloride	126	101	69 - 138	29	20		*
Chlorobenzene	109	93	78 - 135	23	20		*
Dibromochloromethane	112	107	77 - 135	12	20		
Chloroethane	109	94	51 - 145	22	22		
Chloroform	113	97	73 - 123	22	20		*
Chloromethane	105	93	41 - 138	20	25		
1,1-Dichloroethane	111	91	70 - 135	27	20		*
1,2-Dichloroethane	116	106	69 - 135	16	20		
1,1-Dichloroethene	104	94	79 - 135	18	20		
1,2-Dichloroethene, Total	113	92	78 - 135	27	20		*
1,2-Dichloropropane	104	91	72 - 121	20	20		
cis-1,3-Dichloropropene	104	94	71 - 135	17	20		
trans-1,3-Dichloropropene	116	108	71 - 135	14	20		
Ethylbenzene	109	88	73 - 125	28	20		*
2-Hexanone	106	112	67 - 150	2	29		
Methylene Chloride	115	97	76 - 136	24	21		*
4-Methyl-2-pentanone (MIBK)	114	116	69 - 150	5	25		
Styrene	106	91	76 - 135	23	20		*
1,1,2,2-Tetrachloroethane	110	105	65 - 135	12	21		
Tetrachloroethene	113	93	76 - 135	27	20		*
Toluene	112	91	77 - 122	28	20		*
1,1,1-Trichloroethane	124	95	70 - 135	34	20		*
1,1,2-Trichloroethane	110	105	78 - 135	12	20		
Trichloroethene	115	95	77 - 135	26	20		*
Vinyl chloride	102	91	43 - 145	19	24		
Xylenes, Total	109	89	76 - 135	27	20		*

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	109	58 - 140
Toluene-d8 (Surr)	99	102	80 - 126
4-Bromofluorobenzene (Surr)	99	101	76 - 127
Dibromofluoromethane (Surr)	106	109	75 - 121

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276337

Method: 8260B
Preparation: 5035

MS Lab Sample ID:	280-68739-13	Units:	ug/Kg	MSD Lab Sample ID:	280-68739-13
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/07/2015 1147			Analysis Date:	05/07/2015 1207
Prep Date:	04/30/2015 1111			Prep Date:	04/30/2015 1111
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
Acetone	9.7	J	254	236	239	282	
Benzene	0.52	U	63.5	59.1	68.3	52.7	*
Bromodichloromethane	0.24	U	63.5	59.1	71.4	59.5	
Bromoform	0.26	U	63.5	59.1	74.4	66.7	
Bromomethane	0.55	U	63.5	59.1	70.5	57.7	
2-Butanone (MEK)	2.0	U	254	236	317	393	
Carbon disulfide	0.47	U	63.5	59.1	73.4	50.6	*
Carbon tetrachloride	0.70	U	63.5	59.1	79.8	59.6	*
Chlorobenzene	0.60	U	63.5	59.1	69.4	55.0	*
Dibromochloromethane	0.63	U	63.5	59.1	70.9	63.0	
Chloroethane	0.99	U	63.5	59.1	69.2	55.3	
Chloroform	0.32	U	63.5	59.1	71.6	57.4	*
Chloromethane	0.85	U	63.5	59.1	67.0	54.7	
1,1-Dichloroethane	0.23	U	63.5	59.1	70.4	53.8	*
1,2-Dichloroethane	0.78	U	63.5	59.1	73.8	62.8	
1,1-Dichloroethene	0.65	U	63.5	59.1	66.4	55.2	
1,2-Dichloroethene, Total	0.43	U	127	118	143	109	*
1,2-Dichloropropane	0.61	U	63.5	59.1	65.9	53.8	
cis-1,3-Dichloropropene	1.4	U	63.5	59.1	66.0	55.7	
trans-1,3-Dichloropropene	0.74	U	63.5	59.1	73.4	63.6	
Ethylbenzene	0.74	U	63.5	59.1	69.1	52.1	*
2-Hexanone	5.4	U	254	236	271	265	
Methylene Chloride	1.8	U	63.5	59.1	73.1	57.4	*
4-Methyl-2-pentanone (MIBK)	4.8	U	254	236	290	275	
Styrene	0.70	U	63.5	59.1	67.4	53.6	*
1,1,2,2-Tetrachloroethane	0.68	U	63.5	59.1	69.8	61.8	
Tetrachloroethene	0.65	U	63.5	59.1	72.0	54.8	*
Toluene	0.77	U	63.5	59.1	71.1	53.9	*
1,1,1-Trichloroethane	0.58	U	63.5	59.1	78.7	55.9	*
1,1,2-Trichloroethane	0.98	U	63.5	59.1	69.8	62.0	
Trichloroethene	0.26	U	63.5	59.1	73.0	56.0	*
Vinyl chloride	1.5	U	63.5	59.1	65.0	53.6	
Xylenes, Total	0.68	U	127	118	138	105	*

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276203

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-276203/1-A	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-276203	Lab File ID:	05091504.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/09/2015 1055	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/06/2015 1330			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.8
Aroclor 1221	7.9	U	7.9	16
Aroclor 1232	2.0	U	2.0	9.8
Aroclor 1242	4.6	U	4.6	9.8
Aroclor 1248	4.6	U	4.6	9.8
Aroclor 1254	2.5	U	2.5	9.8
Aroclor 1260	2.5	U	2.5	9.8

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	88	59 - 130
Tetrachloro-m-xylene	79	53 - 128

Lab Control Sample - Batch: 280-276203

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-276203/2-A	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-276203	Lab File ID:	05091505.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	05/09/2015 1119	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/06/2015 1330			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.1	26.9	81	54 - 132	
Aroclor 1260	33.1	28.6	86	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	82	59 - 130
Tetrachloro-m-xylene	76	53 - 128

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276203

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-68739-2	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-276203	Lab File ID:	05091508.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.6 g
Analysis Date:	05/09/2015 1228			Final Weight/Volume:	5 mL
Prep Date:	05/06/2015 1330			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-68739-2	Analysis Batch:	280-276754	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-276203	Lab File ID:	05091509.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	05/09/2015 1252			Final Weight/Volume:	5 mL
Prep Date:	05/06/2015 1330			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	84	83	54 - 132	0	26		
Aroclor 1260	72	76	62 - 129	6	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	82	75	59 - 130
Tetrachloro-m-xylene	71	66	53 - 128

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276203

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-68739-2	Units:	ug/Kg	MSD Lab Sample ID:	280-68739-2
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/09/2015 1228			Analysis Date:	05/09/2015 1252
Prep Date:	05/06/2015 1330			Prep Date:	05/06/2015 1330
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	33.3	33.4	27.9	27.9
Aroclor 1260	2.6	U	33.3	33.4	24.0	25.4

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276162

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-276162/1-A	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276162	Lab File ID:	05080011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	05/08/2015 1138	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	990	U	990	4000
C10-C28	670	U	670	4000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	73	49 - 115

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-276162

Method: NWTPH-Dx
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-276162/2-A	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276162	Lab File ID:	05080012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	05/08/2015 1202	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-276162/18-A	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276162	Lab File ID:	05080013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/08/2015 1226	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
C10-C36	78	84	57 - 115	7	23		
C10-C28	78	84	53 - 115	7	23		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
o-Terphenyl	66	73	49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-276162

Method: NWTPH-Dx
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-276162/2-A	Units: ug/Kg		LCSD Lab Sample ID:	LCSD 280-276162/18-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/08/2015 1202			Analysis Date:	05/08/2015 1226
Prep Date:	05/06/2015 1600			Prep Date:	05/06/2015 1600
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
C10-C36	65600	65400	51100	55100
C10-C28	65600	65400	50900	54900

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276162

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68739-13	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276162	Lab File ID:	05080028.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/08/2015 1854			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68739-13	Analysis Batch:	280-276553	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276162	Lab File ID:	05080029.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	05/08/2015 1918			Final Weight/Volume:	1 mL
Prep Date:	05/06/2015 1600			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	81	84	57 - 115	4	23		
C10-C28	81	84	56 - 115	4	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	76	75	49 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276162

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68739-13	Units: ug/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	05/08/2015 1854		
Prep Date:	05/06/2015 1600		
Leach Date:	N/A		

MSD Lab Sample ID:	280-68739-13
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	05/08/2015 1918
Prep Date:	05/06/2015 1600
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
C10-C36	3700	J	67700	68000	58600	60800
C10-C28	1600	J	67700	68000	56700	59000

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276929

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-276929/1-A	Analysis Batch:	280-277044	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276929	Lab File ID:	05120005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	05/12/2015 1045	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/11/2015 1517			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	990	U	990	4000
C10-C28	670	U	670	4000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	75	49 - 115

Lab Control Sample - Batch: 280-276929

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-276929/2-A	Analysis Batch:	280-277044	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276929	Lab File ID:	05120006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	05/12/2015 1109	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/11/2015 1517			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	66200	58100	88	57 - 115	
C10-C28	66200	57800	87	53 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276929

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68739-4	Analysis Batch:	280-277044	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276929	Lab File ID:	05120008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.9 g
Analysis Date:	05/12/2015 1158			Final Weight/Volume:	1 mL
Prep Date:	05/11/2015 1517			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-68739-4	Analysis Batch:	280-277044	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-276929	Lab File ID:	05120009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	05/12/2015 1222			Final Weight/Volume:	1 mL
Prep Date:	05/11/2015 1517			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	81	86	57 - 115	9	23		
C10-C28	82	86	56 - 115	9	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	69	76	49 - 115

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276929

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-68739-4	Units:	ug/Kg	MSD Lab Sample ID:	280-68739-4
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/12/2015 1158			Analysis Date:	05/12/2015 1222
Prep Date:	05/11/2015 1517			Prep Date:	05/11/2015 1517
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
C10-C36	4100		63100	66400	55400	60900
C10-C28	3200	J	63100	66400	54800	60200

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276150

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-276150/1-A	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-276150	Lab File ID:	G0507026.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	05/07/2015 2309	Units:	ug/Kg	Final Weight/Volume:	4 mL
Prep Date:	05/06/2015 1040			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.9	U	9.9	99
Acenaphthylene	8.9	U	8.9	99
Anthracene	3.0	U	3.0	20
Benzo[a]anthracene	3.1	U	3.1	15
Benzo[a]pyrene	6.3	U	6.3	15
Benzo[b]fluoranthene	4.1	U	4.1	15
Benzo[g,h,i]perylene	7.1	U	7.1	30
Benzo[k]fluoranthene	3.9	U	3.9	15
Chrysene	4.8	U	4.8	39
Dibenzo(a,h)anthracene	11	U	11	30
Fluoranthene	13	U	13	39
Fluorene	5.2	U	5.2	30
Indeno[1,2,3-cd]pyrene	12	U	12	30
Naphthalene	12	U	12	99
Phenanthrene	12	U	12	39
Pyrene	12	U	12	39

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	85	72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Control Sample - Batch: 280-276150

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-276150/2-A	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-276150	Lab File ID:	G0507027.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	05/07/2015 2339	Units:	ug/Kg	Final Weight/Volume:	4 mL
Prep Date:	05/06/2015 1040			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1970	1560	79	75 - 116	
Acenaphthylene	1970	1540	78	66 - 115	
Anthracene	1970	1530	78	71 - 115	
Benzo[a]anthracene	1970	1680	86	77 - 120	
Benzo[a]pyrene	1970	1680	85	69 - 115	
Benzo[b]fluoranthene	1970	1640	83	56 - 115	
Benzo[g,h,i]perylene	1970	1830	93	72 - 120	
Benzo[k]fluoranthene	1970	1700	86	76 - 115	
Chrysene	1970	1650	84	79 - 115	
Dibenzo(a,h)anthracene	1970	1640	83	72 - 115	
Fluoranthene	1970	1660	84	77 - 115	
Fluorene	1970	1730	88	77 - 115	
Indeno[1,2,3-cd]pyrene	1970	1670	85	78 - 115	
Naphthalene	1970	1590	81	68 - 120	
Phenanthrene	1970	1610	82	75 - 115	
Pyrene	1970	1750	89	72 - 115	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	83	72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276150

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-68739-1	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-276150	Lab File ID:	G0507029.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	05/08/2015 0041			Final Weight/Volume:	4 mL
Prep Date:	05/06/2015 1040			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-68739-1	Analysis Batch:	280-276338	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-276150	Lab File ID:	G0507030.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	05/08/2015 0111			Final Weight/Volume:	4 mL
Prep Date:	05/06/2015 1040			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	83	81	75 - 116	5	20		
Acenaphthylene	80	78	66 - 115	4	20		
Anthracene	79	77	71 - 115	4	20		
Benzo[a]anthracene	89	86	77 - 120	4	20		
Benzo[a]pyrene	83	86	69 - 115	2	20		
Benzo[b]fluoranthene	85	84	56 - 115	3	20		
Benzo[g,h,i]perylene	94	94	72 - 120	1	20		
Benzo[k]fluoranthene	87	87	76 - 115	2	20		
Chrysene	87	84	79 - 115	5	20		
Dibenzo(a,h)anthracene	83	84	72 - 115	0	20		
Fluoranthene	86	83	77 - 115	4	20		
Fluorene	89	87	77 - 115	4	20		
Indeno[1,2,3-cd]pyrene	86	86	78 - 115	1	20		
Naphthalene	84	82	68 - 120	3	20		
Phenanthrene	83	81	75 - 115	4	20		
Pyrene	90	88	72 - 115	4	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	89	83	72 - 115

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-276150

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-68739-1	Units:	ug/Kg	MSD Lab Sample ID:	280-68739-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/08/2015 0041			Analysis Date:	05/08/2015 0111
Prep Date:	05/06/2015 1040			Prep Date:	05/06/2015 1040
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	9.6	U	2010	1990	1670	1620
Acenaphthylene	8.7	U	2010	1990	1610	1550
Anthracene	2.9	U	2010	1990	1590	1540
Benzo[a]anthracene	3.1	U	2010	1990	1780	1700
Benzo[a]pyrene	6.2	U	2010	1990	1670	1720
Benzo[b]fluoranthene	4.1	U	2010	1990	1710	1660
Benzo[g,h,i]perylene	6.9	U	2010	1990	1880	1870
Benzo[k]fluoranthene	3.8	U	2010	1990	1750	1720
Chrysene	4.7	U	2010	1990	1750	1670
Dibenzo(a,h)anthracene	11	U	2010	1990	1670	1670
Fluoranthene	13	U	2010	1990	1730	1660
Fluorene	5.1	U	2010	1990	1790	1720
Indeno[1,2,3-cd]pyrene	12	U	2010	1990	1720	1710
Naphthalene	12	U	2010	1990	1690	1630
Phenanthrene	12	U	2010	1990	1660	1600
Pyrene	12	U	2010	1990	1810	1740

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-276084/1-A	Analysis Batch:	280-276374	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	05/06/2015 1925	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 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
Arsenic	0.66	U	0.66	1.0
Barium	0.147	B	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Cadmium	0.041	U	0.041	0.20
Calcium	22.45	B	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silver	0.16	U	0.16	0.20
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Method Blank - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-276084/1-A	Analysis Batch:	280-276595	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	05/07/2015 1327	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Boron	0.98	U	0.98	2.0
Magnesium	6.65	B	3.7	20.0
Nickel	0.12	U	0.12	4.0
Silicon	5.7	U	5.7	10.0
Sodium	59.0	U	59.0	120

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Lab Control Sample - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-276084/2-A	Analysis Batch:	280-276374	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	05/06/2015 1928	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	189.4	95	82 - 116	
Antimony	50.0	48.59	97	82 - 110	
Arsenic	100	101.1	101	85 - 110	
Barium	200	193.1	97	87 - 112	
Beryllium	5.00	4.68	94	84 - 114	
Cadmium	10.0	8.99	90	87 - 110	
Calcium	5000	4809	96	82 - 114	
Chromium	20.0	20.90	104	84 - 114	
Cobalt	50.0	46.95	94	87 - 110	
Copper	25.0	26.04	104	88 - 110	
Iron	100	95.52	96	87 - 120	
Lead	50.0	47.79	96	86 - 110	
Manganese	50.0	47.38	95	88 - 110	
Molybdenum	100	109.5	109	86 - 110	
Potassium	5000	4980	100	89 - 110	
Selenium	200	196.3	98	83 - 110	
Silver	5.00	4.97	99	87 - 114	
Vanadium	50.0	48.44	97	88 - 110	
Zinc	50.0	45.45	91	76 - 114	

Lab Control Sample - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-276084/2-A	Analysis Batch:	280-276595	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	05/07/2015 1330	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Boron	100	90.94	91	80 - 120	
Magnesium	5000	4485	90	90 - 110	
Nickel	50.0	45.31	91	87 - 110	
Silicon	1000	67.98	7	10 - 70	N
Sodium	5000	4924	98	90 - 112	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Matrix Spike - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276374	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	05/06/2015 1938	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7260		192	9696	1272	50 - 200	4
Antimony	0.38	U	47.9	23.01	48	20 - 200	
Arsenic	2.3		95.9	87.60	89	76 - 111	
Barium	52.8		192	230.8	93	52 - 159	
Beryllium	0.30		4.79	4.28	83	72 - 105	
Cadmium	0.041	U	9.59	7.67	80	40 - 130	
Calcium	4810		4790	10140	111	43 - 165	
Chromium	8.5		19.2	28.10	102	70 - 200	
Cobalt	6.8		47.9	46.48	83	72 - 106	
Copper	16.2		24.0	40.66	102	37 - 187	
Iron	17800		95.9	19550	1809	70 - 200	4
Lead	3.7		47.9	42.82	82	70 - 200	
Manganese	253		47.9	324.2	150	40 - 200	4
Molybdenum	0.29	B	95.9	90.03	94	75 - 103	
Potassium	1150		4790	5729	95	56 - 172	
Selenium	0.86	U	192	162.7	85	76 - 104	
Silver	0.16	U	4.79	4.23	88	75 - 141	
Vanadium	40.1		47.9	86.32	96	50 - 169	
Zinc	34.5		47.9	74.75	84	70 - 200	

Matrix Spike - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276595	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	05/07/2015 1340	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Boron	1.3	B	95.9	76.15	78	80 - 120	N
Magnesium	3790		4790	8133	90	64 - 145	
Nickel	10.1		47.9	49.03	81	61 - 126	
Silicon	249		959	290.8	4	20 - 200	N
Sodium	271		4790	4761	94	78 - 111	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Duplicate - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276374	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26d050615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	05/06/2015 1935	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7260		7299	0.6	40	
Antimony	0.38	U	0.36	NC	40	U
Arsenic	2.3		2.78	18	30	
Barium	52.8		57.72	9	30	
Beryllium	0.30		0.308	4	30	
Cadmium	0.041	U	0.039	NC	30	U
Calcium	4810		4997	4	30	
Chromium	8.5		9.09	7	40	
Cobalt	6.8		7.32	7	30	
Copper	16.2		17.28	6	30	
Iron	17800		18940	6	40	
Lead	3.7		3.86	5	40	
Manganese	253		272.6	8	40	
Molybdenum	0.29	B	0.25	NC	30	U
Potassium	1150		1225	6	40	
Selenium	0.86	U	0.82	NC	30	U
Silver	0.16	U	0.15	NC	30	U
Vanadium	40.1		43.59	8	30	
Zinc	34.5		36.69	6	40	

Duplicate - Batch: 280-276084

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276595	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-276084	Lab File ID:	26a050715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	05/07/2015 1338	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	05/06/2015 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Boron	1.3	B	1.25	3	30	B
Magnesium	3790		3832	1	30	
Nickel	10.1		11.25	11	30	
Silicon	249		247.3	0.6	40	N
Sodium	271		244.0	11	30	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Method Blank - Batch: 280-276198

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-276198/1-A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	05/06/2015 2131	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-276198

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-276198/2-A	Analysis Batch:	280-276397	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	05/06/2015 2141	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.426	102	87 - 111	

Matrix Spike - Batch: 280-276198

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276397	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.51 g
Analysis Date:	05/06/2015 2147	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0064	U	0.498	0.473	95	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Duplicate - Batch: 280-276198

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276397	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-276198	Lab File ID:	150506af.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.52 g
Analysis Date:	05/06/2015 2145	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/06/2015 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0064	U	0.0065	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

Duplicate - Batch: 280-276455

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-68739-1	Analysis Batch:	280-276455	Instrument ID:	WC_SHI2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/07/2015 1137	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	1.6	1.9	19	20	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-276076					
LCS 280-276099/2-A	Lab Control Sample	T	Solid	8260B	280-276099
MB 280-276099/1-A	Method Blank	T	Solid	8260B	280-276099
280-68739-1	J1V6V6	T	Solid	8260B	280-276099
280-68739-1MS	Matrix Spike	T	Solid	8260B	280-276099
280-68739-1MSD	Matrix Spike Duplicate	T	Solid	8260B	280-276099
280-68739-4	J1V6V9	T	Solid	8260B	280-276099
280-68739-7	J1V6W2	T	Solid	8260B	280-276099
280-68739-12	J1V6W7	T	Solid	8260B	280-276099
Prep Batch: 280-276099					
LCS 280-276099/2-A	Lab Control Sample	T	Solid	5035	
MB 280-276099/1-A	Method Blank	T	Solid	5035	
280-68739-1	J1V6V6	T	Solid	5035	
280-68739-1MS	Matrix Spike	T	Solid	5035	
280-68739-1MSD	Matrix Spike Duplicate	T	Solid	5035	
280-68739-4	J1V6V9	T	Solid	5035	
280-68739-7	J1V6W2	T	Solid	5035	
280-68739-12	J1V6W7	T	Solid	5035	
Analysis Batch:280-276328					
LCS 280-276337/2-A	Lab Control Sample	T	Solid	8260B	280-276337
MB 280-276337/1-A	Method Blank	T	Solid	8260B	280-276337
280-68739-2	J1V6V7	T	Solid	8260B	280-276337
280-68739-3	J1V6V8	T	Solid	8260B	280-276337
280-68739-5	J1V6W0	T	Solid	8260B	280-276337
280-68739-6	J1V6W1	T	Solid	8260B	280-276337
280-68739-8	J1V6W3	T	Solid	8260B	280-276337
280-68739-9	J1V6W4	T	Solid	8260B	280-276337
280-68739-10	J1V6W5	T	Solid	8260B	280-276337
280-68739-11	J1V6W6	T	Solid	8260B	280-276337
280-68739-13	J1V6W8	T	Solid	8260B	280-276337
280-68739-13MS	Matrix Spike	T	Solid	8260B	280-276337
280-68739-13MSD	Matrix Spike Duplicate	T	Solid	8260B	280-276337

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-276337					
LCS 280-276337/2-A	Lab Control Sample	T	Solid	5035	
MB 280-276337/1-A	Method Blank	T	Solid	5035	
280-68739-2	J1V6V7	T	Solid	5035	
280-68739-3	J1V6V8	T	Solid	5035	
280-68739-5	J1V6W0	T	Solid	5035	
280-68739-6	J1V6W1	T	Solid	5035	
280-68739-8	J1V6W3	T	Solid	5035	
280-68739-9	J1V6W4	T	Solid	5035	
280-68739-10	J1V6W5	T	Solid	5035	
280-68739-11	J1V6W6	T	Solid	5035	
280-68739-13	J1V6W8	T	Solid	5035	
280-68739-13MS	Matrix Spike	T	Solid	5035	
280-68739-13MSD	Matrix Spike Duplicate	T	Solid	5035	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-276162					
LCS 280-276162/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-276162/18-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-276162/1-A	Method Blank	T	Solid	3550C	
280-68739-1	J1V6V6	T	Solid	3550C	
280-68739-2	J1V6V7	T	Solid	3550C	
280-68739-3	J1V6V8	T	Solid	3550C	
280-68739-5	J1V6W0	T	Solid	3550C	
280-68739-6	J1V6W1	T	Solid	3550C	
280-68739-7	J1V6W2	T	Solid	3550C	
280-68739-8	J1V6W3	T	Solid	3550C	
280-68739-9	J1V6W4	T	Solid	3550C	
280-68739-10	J1V6W5	T	Solid	3550C	
280-68739-11	J1V6W6	T	Solid	3550C	
280-68739-12	J1V6W7	T	Solid	3550C	
280-68739-13	J1V6W8	T	Solid	3550C	
280-68739-13MS	Matrix Spike	T	Solid	3550C	
280-68739-13MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-276203					
LCS 280-276203/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-276203/1-A	Method Blank	T	Solid	3550C	
280-68739-1	J1V6V6	T	Solid	3550C	
280-68739-2	J1V6V7	T	Solid	3550C	
280-68739-2MS	Matrix Spike	T	Solid	3550C	
280-68739-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68739-3	J1V6V8	T	Solid	3550C	
280-68739-4	J1V6V9	T	Solid	3550C	
280-68739-5	J1V6W0	T	Solid	3550C	
280-68739-6	J1V6W1	T	Solid	3550C	
280-68739-7	J1V6W2	T	Solid	3550C	
280-68739-8	J1V6W3	T	Solid	3550C	
280-68739-9	J1V6W4	T	Solid	3550C	
280-68739-10	J1V6W5	T	Solid	3550C	
280-68739-11	J1V6W6	T	Solid	3550C	
280-68739-12	J1V6W7	T	Solid	3550C	
280-68739-13	J1V6W8	T	Solid	3550C	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-276553					
LCS 280-276162/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-276162
LCSD 280-276162/18-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Dx	280-276162
MB 280-276162/1-A	Method Blank	T	Solid	NWTPH-Dx	280-276162
280-68739-1	J1V6V6	T	Solid	NWTPH-Dx	280-276162
280-68739-2	J1V6V7	T	Solid	NWTPH-Dx	280-276162
280-68739-3	J1V6V8	T	Solid	NWTPH-Dx	280-276162
280-68739-5	J1V6W0	T	Solid	NWTPH-Dx	280-276162
280-68739-6	J1V6W1	T	Solid	NWTPH-Dx	280-276162
280-68739-7	J1V6W2	T	Solid	NWTPH-Dx	280-276162
280-68739-8	J1V6W3	T	Solid	NWTPH-Dx	280-276162
280-68739-9	J1V6W4	T	Solid	NWTPH-Dx	280-276162
280-68739-10	J1V6W5	T	Solid	NWTPH-Dx	280-276162
280-68739-11	J1V6W6	T	Solid	NWTPH-Dx	280-276162
280-68739-12	J1V6W7	T	Solid	NWTPH-Dx	280-276162
280-68739-13	J1V6W8	T	Solid	NWTPH-Dx	280-276162
280-68739-13MS	Matrix Spike	T	Solid	NWTPH-Dx	280-276162
280-68739-13MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-276162
Analysis Batch:280-276754					
LCS 280-276203/2-A	Lab Control Sample	T	Solid	8082	280-276203
MB 280-276203/1-A	Method Blank	T	Solid	8082	280-276203
280-68739-1	J1V6V6	T	Solid	8082	280-276203
280-68739-2	J1V6V7	T	Solid	8082	280-276203
280-68739-2MS	Matrix Spike	T	Solid	8082	280-276203
280-68739-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-276203
280-68739-3	J1V6V8	T	Solid	8082	280-276203
280-68739-4	J1V6V9	T	Solid	8082	280-276203
280-68739-5	J1V6W0	T	Solid	8082	280-276203
280-68739-6	J1V6W1	T	Solid	8082	280-276203
280-68739-7	J1V6W2	T	Solid	8082	280-276203
280-68739-8	J1V6W3	T	Solid	8082	280-276203
280-68739-9	J1V6W4	T	Solid	8082	280-276203
280-68739-10	J1V6W5	T	Solid	8082	280-276203
280-68739-11	J1V6W6	T	Solid	8082	280-276203
280-68739-12	J1V6W7	T	Solid	8082	280-276203
280-68739-13	J1V6W8	T	Solid	8082	280-276203
Prep Batch: 280-276929					
LCS 280-276929/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-276929/1-A	Method Blank	T	Solid	3550C	
280-68739-4	J1V6V9	T	Solid	3550C	
280-68739-4MS	Matrix Spike	T	Solid	3550C	
280-68739-4MSD	Matrix Spike Duplicate	T	Solid	3550C	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-277044					
LCS 280-276929/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-276929
MB 280-276929/1-A	Method Blank	T	Solid	NWTPH-Dx	280-276929
280-68739-4	J1V6V9	T	Solid	NWTPH-Dx	280-276929
280-68739-4MS	Matrix Spike	T	Solid	NWTPH-Dx	280-276929
280-68739-4MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-276929

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-276084					
LCS 280-276084/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-276084/1-A	Method Blank	T	Solid	3050B	
280-68739-1	J1V6V6	T	Solid	3050B	
280-68739-1DU	Duplicate	T	Solid	3050B	
280-68739-1MS	Matrix Spike	T	Solid	3050B	
280-68739-2	J1V6V7	T	Solid	3050B	
280-68739-3	J1V6V8	T	Solid	3050B	
280-68739-4	J1V6V9	T	Solid	3050B	
280-68739-5	J1V6W0	T	Solid	3050B	
280-68739-6	J1V6W1	T	Solid	3050B	
280-68739-7	J1V6W2	T	Solid	3050B	
280-68739-8	J1V6W3	T	Solid	3050B	
280-68739-9	J1V6W4	T	Solid	3050B	
280-68739-10	J1V6W5	T	Solid	3050B	
280-68739-11	J1V6W6	T	Solid	3050B	
280-68739-12	J1V6W7	T	Solid	3050B	
280-68739-13	J1V6W8	T	Solid	3050B	
Prep Batch: 280-276198					
LCS 280-276198/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-276198/1-A	Method Blank	T	Solid	7471A	
280-68739-1	J1V6V6	T	Solid	7471A	
280-68739-1DU	Duplicate	T	Solid	7471A	
280-68739-1MS	Matrix Spike	T	Solid	7471A	
280-68739-2	J1V6V7	T	Solid	7471A	
280-68739-3	J1V6V8	T	Solid	7471A	
280-68739-4	J1V6V9	T	Solid	7471A	
280-68739-5	J1V6W0	T	Solid	7471A	
280-68739-6	J1V6W1	T	Solid	7471A	
280-68739-7	J1V6W2	T	Solid	7471A	
280-68739-8	J1V6W3	T	Solid	7471A	
280-68739-9	J1V6W4	T	Solid	7471A	
280-68739-10	J1V6W5	T	Solid	7471A	
280-68739-11	J1V6W6	T	Solid	7471A	
280-68739-12	J1V6W7	T	Solid	7471A	
280-68739-13	J1V6W8	T	Solid	7471A	

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-276374					
LCS 280-276084/2-A	Lab Control Sample	T	Solid	6010B	280-276084
MB 280-276084/1-A	Method Blank	T	Solid	6010B	280-276084
280-68739-1	J1V6V6	T	Solid	6010B	280-276084
280-68739-1DU	Duplicate	T	Solid	6010B	280-276084
280-68739-1MS	Matrix Spike	T	Solid	6010B	280-276084
280-68739-2	J1V6V7	T	Solid	6010B	280-276084
280-68739-3	J1V6V8	T	Solid	6010B	280-276084
280-68739-4	J1V6V9	T	Solid	6010B	280-276084
280-68739-5	J1V6W0	T	Solid	6010B	280-276084
280-68739-6	J1V6W1	T	Solid	6010B	280-276084
280-68739-7	J1V6W2	T	Solid	6010B	280-276084
280-68739-8	J1V6W3	T	Solid	6010B	280-276084
280-68739-9	J1V6W4	T	Solid	6010B	280-276084
280-68739-10	J1V6W5	T	Solid	6010B	280-276084
280-68739-11	J1V6W6	T	Solid	6010B	280-276084
280-68739-12	J1V6W7	T	Solid	6010B	280-276084
280-68739-13	J1V6W8	T	Solid	6010B	280-276084
Analysis Batch:280-276397					
LCS 280-276198/2-A	Lab Control Sample	T	Solid	7471A	280-276198
MB 280-276198/1-A	Method Blank	T	Solid	7471A	280-276198
280-68739-1	J1V6V6	T	Solid	7471A	280-276198
280-68739-1DU	Duplicate	T	Solid	7471A	280-276198
280-68739-1MS	Matrix Spike	T	Solid	7471A	280-276198
280-68739-2	J1V6V7	T	Solid	7471A	280-276198
280-68739-3	J1V6V8	T	Solid	7471A	280-276198
280-68739-4	J1V6V9	T	Solid	7471A	280-276198
280-68739-5	J1V6W0	T	Solid	7471A	280-276198
280-68739-6	J1V6W1	T	Solid	7471A	280-276198
280-68739-7	J1V6W2	T	Solid	7471A	280-276198
280-68739-8	J1V6W3	T	Solid	7471A	280-276198
280-68739-9	J1V6W4	T	Solid	7471A	280-276198
280-68739-10	J1V6W5	T	Solid	7471A	280-276198
280-68739-11	J1V6W6	T	Solid	7471A	280-276198
280-68739-12	J1V6W7	T	Solid	7471A	280-276198
280-68739-13	J1V6W8	T	Solid	7471A	280-276198

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-276595					
LCS 280-276084/2-A	Lab Control Sample	T	Solid	6010B	280-276084
MB 280-276084/1-A	Method Blank	T	Solid	6010B	280-276084
280-68739-1	J1V6V6	T	Solid	6010B	280-276084
280-68739-1DU	Duplicate	T	Solid	6010B	280-276084
280-68739-1MS	Matrix Spike	T	Solid	6010B	280-276084
280-68739-2	J1V6V7	T	Solid	6010B	280-276084
280-68739-3	J1V6V8	T	Solid	6010B	280-276084
280-68739-4	J1V6V9	T	Solid	6010B	280-276084
280-68739-5	J1V6W0	T	Solid	6010B	280-276084
280-68739-6	J1V6W1	T	Solid	6010B	280-276084
280-68739-7	J1V6W2	T	Solid	6010B	280-276084
280-68739-8	J1V6W3	T	Solid	6010B	280-276084
280-68739-9	J1V6W4	T	Solid	6010B	280-276084
280-68739-10	J1V6W5	T	Solid	6010B	280-276084
280-68739-11	J1V6W6	T	Solid	6010B	280-276084
280-68739-12	J1V6W7	T	Solid	6010B	280-276084
280-68739-13	J1V6W8	T	Solid	6010B	280-276084

Report Basis
T = Total

General Chemistry

Analysis Batch:280-276455				
280-68739-1	J1V6V6	T	Solid	D-2216
280-68739-1DU	Duplicate	T	Solid	D-2216
280-68739-2	J1V6V7	T	Solid	D-2216
280-68739-3	J1V6V8	T	Solid	D-2216
280-68739-4	J1V6V9	T	Solid	D-2216
280-68739-5	J1V6W0	T	Solid	D-2216
280-68739-6	J1V6W1	T	Solid	D-2216
280-68739-7	J1V6W2	T	Solid	D-2216
280-68739-8	J1V6W3	T	Solid	D-2216
280-68739-9	J1V6W4	T	Solid	D-2216
280-68739-10	J1V6W5	T	Solid	D-2216
280-68739-11	J1V6W6	T	Solid	D-2216
280-68739-12	J1V6W7	T	Solid	D-2216
280-68739-13	J1V6W8	T	Solid	D-2216

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-68739-1
Sdg Number: JP0961

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-276150					
LCS 280-276150/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-276150/1-A	Method Blank	T	Solid	3550C	
280-68739-1	J1V6V6	T	Solid	3550C	
280-68739-1MS	Matrix Spike	T	Solid	3550C	
280-68739-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-68739-2	J1V6V7	T	Solid	3550C	
280-68739-3	J1V6V8	T	Solid	3550C	
280-68739-4	J1V6V9	T	Solid	3550C	
280-68739-5	J1V6W0	T	Solid	3550C	
280-68739-6	J1V6W1	T	Solid	3550C	
280-68739-7	J1V6W2	T	Solid	3550C	
280-68739-8	J1V6W3	T	Solid	3550C	
280-68739-9	J1V6W4	T	Solid	3550C	
280-68739-10	J1V6W5	T	Solid	3550C	
280-68739-11	J1V6W6	T	Solid	3550C	
280-68739-12	J1V6W7	T	Solid	3550C	
280-68739-13	J1V6W8	T	Solid	3550C	
Analysis Batch:280-276338					
LCS 280-276150/2-A	Lab Control Sample	T	Solid	8310	280-276150
MB 280-276150/1-A	Method Blank	T	Solid	8310	280-276150
280-68739-1	J1V6V6	T	Solid	8310	280-276150
280-68739-1MS	Matrix Spike	T	Solid	8310	280-276150
280-68739-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-276150
280-68739-2	J1V6V7	T	Solid	8310	280-276150
280-68739-3	J1V6V8	T	Solid	8310	280-276150
280-68739-4	J1V6V9	T	Solid	8310	280-276150
280-68739-5	J1V6W0	T	Solid	8310	280-276150
280-68739-6	J1V6W1	T	Solid	8310	280-276150
280-68739-7	J1V6W2	T	Solid	8310	280-276150
280-68739-8	J1V6W3	T	Solid	8310	280-276150
280-68739-9	J1V6W4	T	Solid	8310	280-276150
280-68739-10	J1V6W5	T	Solid	8310	280-276150
280-68739-11	J1V6W6	T	Solid	8310	280-276150
280-68739-12	J1V6W7	T	Solid	8310	280-276150
280-68739-13	J1V6W8	T	Solid	8310	280-276150

Report Basis
T = Total

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7 days		
Project Designation: 100N Field Remediation	Sampling Location: 100-N-96 (excavation, verification)		SAF No.: RC-189
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1652-12	COA: 000N962000	Method of Shipment: Commercial Carrier / Fed Ex
Shipped To: TestAmerica Denver	Offsite Property No.: A131409		Bill of Lading/Air Bill No.: See OSIC

Other Labs Shipped To: TestAmerica Richland

280-68739 Chain of Custody

POSSIBLE SAMPLE HAZARDS/REMARKS

N/A

Special Handling and/or Storage

Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Freeze						
Type of Container	G/P	aG	aG	G	Gs*						
No. of Container(s)	1	1	1	1	5						
Volume	250mL	250mL	250mL	125mL	40mL						
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	PAHs - 8310	TPH-Diesel Range - WTPH-D +	** VOA - 5035/8260 (TCL)						

Sample No.	Matrix	Sample Date	Sample Time										
J1V6V6	SOIL	4/30/15	1156	X	X	X	X	X					
J1V6V7	SOIL	4/30/15	1209	X	X	X	X	X					
J1V6V8	SOIL	4/30/15	1203	X	X	X	X	X					
J1V6V9	SOIL	4/30/15	1316	X	X	X	X	X					
J1V6W0	SOIL	4/30/15	1104	X	X	X	X	X					

Page 14 of 159

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1222 4-30-15	C. Martinez / C. Martinez	1222 4/30/15
C. Martinez / C. Martinez	4/30/15 1540	G. Bingham	4-30-15 1540
G. Bingham	4-30-15 1615	1060 Battelle fridge #3B	1615 4-30-15
1060 Battelle fridge #3B	5-4-15 0730	C. Bingham	5-4-15 0730
C. Bingham / WCH	5-4-15 0740	fed EX	5-4-15
			5-5-15 10:05

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)

REVIEWED BY K. Wood Vincent DATE 5-4-15

* freeze upon receipt. 4/30/15 CMB

** VOA samples frozen upon collection

JP0961

5.6, 2.8, 1.2, 4.1 IRS 40.2 Transferred to NT 5/5/15

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8 B	Data Turnaround: 7 days		
Project Designation: 100N Field Remediation	Sampling Location: 100-N-96 (excavation, verification)		SAF No.: RC-189
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1652-12	COA: 000N962000	Method of Shipment: Commercial Carrier Fed EX
Shipped To: TestAmerica Denver	Offsite Property No.: A131409		Bill of Lading/Air Bill No.: See OSPC

Other Labs Shipped To: TestAmerica Richland

POSSIBLE SAMPLE HAZARDS/REMARKS

N/A

Special Handling and/or Storage

Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Freeze						
Type of Container	G/P	aG	aG	G	Gs*						
No. of Container(s)	1	1	1	1	5						
Volume	250mL	250mL	250mL	125mL	40mL						
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	PAHs - 8310	TPH-Diesel Range - WTPH-D +	** VOA - 5035/8260 (TCL)						

Sample No.	Matrix	Sample Date	Sample Time										
J1V6W1	SOIL	4/30/15	1111	X	X	X	X	X					
J1V6W2	SOIL	4/30/15	1055	X	X	X	X	X					
J1V6W3	SOIL	4/30/15	1041	X	X	X	X	X					
J1V6W4	SOIL	4/30/15	1048	X	X	X	X	X					
J1V6W5	SOIL	4/30/15	1030	X	X	X	X	X					

Page 14 of 15

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	4-30-15 1222	C. Martinez/C. Martinez	4/30/15 1222
C. Martinez/C. Martinez	4/30/15 1540	C. Bingham	4-30-15 1540
C. Bingham	4-30-15 1615	1000 Battelle, Fridge #3B	4-30-15 1615
1000 Battelle, Fridge #3B	5-4-15 0730	C. Bingham	5-4-15 0730
C. Bingham WCH	5-4-15 0740	Fed EX	5-4-15
			5-5-15 10:05

Sign/Print Names

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)

REVIEWED BY K. Woodhaemo DATE 5.4.15

** freeze upon receipt. 4/30/15 CMB

VOA samples frozen upon collection

JP0961

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-189-310

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7 days		
Project Designation 100N Field Remediation	**Sampling Location** 100-N-96 (excavation, verification)		**SAF No.** RC-189
Ice Chest No. WCH-08-032	**Field Logbook No.** EL-1652-12	**COA** 000N962000	**Method of Shipment** Commercial Carrier / Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131409		**Bill of Lading/Air Bill No.** See OSR

Other Labs Shipped To
TestAmerica Richland

POSSIBLE SAMPLE HAZARDS/REMARKS
N/A

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Freeze							
Type of Container	G/P	aG	aG	G	Gs*							
No. of Container(s)	1	1	1	1	5							
Volume	250mL	250mL	250mL	125mL	40mL							
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	PAHs - 8310	TPH-Diesel Range - WTPH-D +	** VOA - 5035/8260 (TCL)							

Sample No.	Matrix	Sample Date	Sample Time										
J1V6W6	SOIL	4/30/15	1016	X	X	X	X	X					
J1V6W7	SOIL	4/30/15	1023	X	X	X	X	X					
J1V6W8	SOIL	4/30/15	1111	X	X	X	X	X					

Page 1 of 1 550

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1222 4-30-15	C. Martinez/C. Martinez	1222 4/30/15
C. Martinez/C. Martinez	1540 4/30/15	C. Bingham	4-30-15 1540
C. Bingham	4-30-15 1615	1000 Battelle Fridge #3B	1615 4-30-15
1000 Battelle Fridge #3B	0730 5-4-15	C. Bingham	5-4-15 0730
C. Bingham WCH	5-4-15 0740	Fed Ex	5-4-15
			5-5-15 10:05

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)

REVIEWED BY K. Wood/Vaemal DATE 5-4-15

** freeze upon receipt. 4/30/15 CMB
VOA samples frozen upon collection

JP0961

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

90w Revision

Project 28002142
Report Due: 5/12/2015 D.B. 5-6-15
TALs TAT: Rush 5d

Sample Check-in List

Date/Time Received: 5/5/15 10:05 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: JP0961 NA[ ] SAF #: RC-189 NA [ ]

Job Number: 68739 Chain of Custody # RC-189-310

Shipping Container ID: RCC-08-023 WCH-11-055 WCH-08-055 ~~RCC-08-022~~ Air Bill # 7735205100005

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 5.6, 2.8, 1.2, 4.1 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: 5/5/15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager Darlene Bandy Date 5-6-15

LS-023, Rev. 7, 1/08

Temp 1.2 IR# 5
CF +0.2 Initals MS
Date: 05/05/15

RCC-08-022

From: (509) 376-7492
1162 Shipping
US DOE co WCH
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J15121602230uv

Ship Date: 04MAY15
ActWgt: 73.0 LB
CAD: 105286502/INET3610

Delivery Address Bar Code

Ref # 000N962000/0603672000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0190
BILL THIRD PARTY

Kae Yoder
TestAmerica
4955 Yarrow St.

ARVADA, CO 80002

3 of 9

TUE - 05 MAY 10:30A
PRIORITY OVERNIGHT

MPS# 7735 2051 1034
0263
Mstr# 7735 2051 0005
0201

XH WHHA

80002
CO-US
DEN

597J1/25E2/EE4B

After printing this label:
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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.

From: (509) 376-7492
1162 Shipping
US DOE co WCH
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J15121502230/kv

SHIP TO: (303) 736-0190
Kae Yoder
TestAmerica
4955 Yarrow St.

ARVADA, CO 80002

BILL THIRD PARTY

Ship Date: 04MAY15
ActWgt: 82.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 000N962000/0603672000
Invoice #
PO #
Dept #

Temp 2.8 IR# 5
CF +0.2 Initals MS
Date: 05/05/15

RCC-08-023

4 of 9

MPS# 7735 2051 1045
0263
Mstr# 7735 2051 0005
0263

TUE - 05 MAY 10:30A
PRIORITY OVERNIGHT

XH WHHA

80002
CO-US
DEN

5374/25E2/EE48

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From: (509) 376-7492
1162 Shipping
US DOE co WCH
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J15121502230uv

Ship Date: 04MAY15
ActWgt: 45.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 000N092000/0603672000
Invoice #
PO #
Dept #

Temp 4.1 IR# 5
CF +0.2 Initals MS
Date: 05/05/15

WCH-11-055

SHIP TO: (303) 736-0190
Kae Yoder
TestAmerica
4955 Yarrow St.

ARVADA, CO 80002

BILL THIRD PARTY

5 of 9

TUE - 05 MAY 10:30A
PRIORITY OVERNIGHT

MPS# 7735 2051 0792
0263
Mstr# 7735 2051 0005 0201

XH WHHA

80002
CO-US
DEN

537J1/25E2/EE4B

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From: (509) 376-7492
1162 Shipping
US DOE co WCH
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx Express

J151215022303uv

Ship Date: 04MAY15
ActWgt: 55.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 000N062000/0603672000
Invoice #
PO #
Dept #

Temp 5.6 IR# 5
CF +0.2 Initals ms
Date: 05/05/15

SHIP TO: (303) 736-0190
Kae Yoder
TestAmerica
4955 Yarrow St.

ARVADA, CO 80002

BILL THIRD PARTY

6 of 9

TUE - 05 MAY 10:30A
PRIORITY OVERNIGHT

MPS# 7735 2051 1192
0265
Mstr# 7735 2051 0005
0201

XH WHHA

80002
CO-US
DEN

WCH-08-055

537J1/25E2/EE40

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2. Fold the printed page along the horizontal line.
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