0096155

SAF-RC-074
100-D/DR Burial Grounds & Remaining Sites – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

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

COMMENTS:

SDG JP0169 SAF RC-074

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Waste Site: 100-D-62

RECEIVED
MAY 11 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

Amended

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 20 *Pages*

Report No.: 46443

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.
JP0169	RC-074	J1H217	J1D260478-1	MHHWC1AA	9MHHWC10	117142

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

May 3, 2011

Attention: Joan Kessner

SAF Number	:	RC-074
Date SDG Closed	:	April 26, 2011
Number of Samples	:	One (1)
Sample Type	:	Soil
SDG Number	:	JP0169
Data Deliverable	:	7 Day Summary

CASE NARRATIVE

I. Introduction

On April 26, 2011, one soil sample was received at TestAmerica for chemistry analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1H217	MHHWC	SOIL	4/26/11

II. Sample Receipt

The sample was 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 matrix spike recovered below the MDL. The post digestive matrix spike recovered at 40.9% and the insoluble matrix spike recovered at 71.9%. This implies strong reducing capacity in the sample. The sample and sample duplicate agreement is outside the acceptance limits. This maybe attributed to inhomogeniety of the matrix. Except as noted, the LCS, batch blank, sample, sample duplicate (J1H217) and sample matrix spike (J1H217) results are within contractual requirements.

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

Reviewed and approved:

Whitney Ritari
for Rhonda Wagar
Project Manager

Drinking Water Method Cross References

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

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

Uncertainty Estimation

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

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

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

Report Definitions

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

Sample Results Summary

TestAmerica TARL

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

Date: 03-May-11

Report No. : 46443

SDG No: JP0169

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
117142	7196_CR6								
J1H217									
	MHHWC1A	HEXCHROME	2.86E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	MHHWC1A	HEXCHROME	1.83E+00 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	3.50E-01	43.6

No. of Results: 2

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 03-May-11

Report No. : 46443

SDG No.: JP0169

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
7196_CR6								
117142 MATRIX SPIKE, J1H217								
MHHWC1AC	HEXCHROME	1.54E-01 +- 0.0E+00	U	mg/kg	N/A	1%	-1.0	1.54E-01
117142 BLANK QC,								
MHJ2G1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
MHJ2G1AC	HEXCHROME	1.83E+01 +- 0.0E+00		mg/kg	N/A	91%	-0.1	1.55E-01

No. of Results: 3

TestAmerica
rptSTLRchQcSummary V5.2.12
A2002

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

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	**SDG:**	JP0169	**Collection Date:**	4/25/2011 1:00:00 PM
Lot-Sample No.:	J1D260478-1	**Report No. :**	46443	**Received Date:**	4/26/2011 10:50:00 AM
Client Sample ID:	J1H217	**COC No. :**	RC-074-220	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 117142	7196_CR6			Work Order:	MHHWC1AA		Report DB ID:	9MHHWC10				
HEXCHROME	***2.86E+00***			0.0E+00	1.55E-01	mg/kg	N/A	*(18.4)*	4/30/11 09:00 a		2.5	
							1.55E-01	*N/A*			g	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM I

SAMPLE RESULTS

Date: 03-May-11

Lab Name:	TestAmerica	SDG:	JP0169	Collection Date:	4/25/2011 1:00:00 PM
Lot-Sample No.:	J1D260478-1	Report No. :	46443	Received Date:	4/26/2011 10:50:00 AM
Client Sample ID:	J1H217	COC No. :	RC-074-220	Matrix:	SOIL

Ordered by Client Sample ID. Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector

TestAmerica
rptSTLRchSample
V5.2.12 A2002

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

FORM II

Date: 03-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0169	**Collection Date:**	4/25/2011 1:00:00 PM
Lot-Sample No.:	J1D260478-1	**Report No. :**	46443	**Received Date:**	4/26/2011 10:50:00 AM
Client Sample ID:	J1H217	**COC No. :**	RC-074-220	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 117142	7196_CR6			**Work Order:** MHHWC1AE		**Report DB ID:** MHHWC1ER			**Orig Sa DB ID:** 9MHHWC10			
HEXCHROME	1.83E+00	U		0.0E+00	1.55E-01	mg/kg	N/A	(11.8)	4/30/11 09:00 a		2.5	
	2.86E+00		**RPD**	**43.6**		3.50E-01		N/A			g	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchDupV5.2
.12 A2002

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

FORM II

BLANK RESULTS

Date: 03-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: JP0169

Report No. : 46443

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 117142	7196_CR6			Work Order:	MHJ2G1AA		Report DB ID:	MHJ2G1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	4/30/11 09:00 a		2.5	
						1.55E-01		N/A			g	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchBlank
V5.2.12 A2002

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

FORM II

LCS RESULTS

Date: 03-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: JP0169

Report No. : 46443

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 117142	7196_CR6			**Work Order:**	MHJ2G1AC		**Report DB ID:**	MHJ2G1AS					
HEXCHROME	1.83E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		91%	4/30/11 09:00 a	2.5	
							Rec Limits:	80	120	-0.1		g	

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

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

rptSTLRchLcs
V5.2.12 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 03-May-11

Lab Name: TestAmerica **SDG:** JP0169

Lot-Sample No.: J1D260478-1, J1H217 **Report No. :** 46443 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 117142	Work Order: MHHWC1AC			Report DB ID: MHHWC1CW			Orig Sa DB ID: 9MHHWC10					
HEXCHROME	1.54E-01	U		0.0E+00	1.54E-01	mg/kg	N/A	1.28%	1.20E+01	4/30/11 09:00 a	2.5	7196_CR6
	2.86E+00										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.12 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

TestAmerica
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Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1117142

Lab Sample Numbers or SDG:JP0169

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

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

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

Comments on any "No" response: The MS recovered < MDL. PDMS recovered low at 40.9%. The insoluble MS recovered also low at 71.9%. Suspect substantial reducing capacity in the sample.

pp 5/2/11

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

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

Clouseau
Nonconformance Memo

TestAmerica
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NCM #: **10-18272**
NCM Initiated By: Diana Petty
Date Opened: 05/03/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J1D260478 (1), J1D270000 (142),
QC Batches: 1117142,

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

Problem Description / Root Cause

Name	Date	Description
Diana Petty	05/03/2011	The MS recovered < MDL. PDMS recovered low at 40.9%. The insoluble MS recovered also low at 71.9%. Suspect substantial reducing capacity in the sample.

Corrective Action

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

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 5/3/2011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-074-220	Page 1 of 1
Collector: K LUCAS	Company Contact: Joan Kessner; Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH	Price Code: ~~8L~~ 8B @ 4/7/11
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location: 100-D-62	SAF No.: RC-074	Data Turnaround: ~~21~~ 7 Days @ 4/7/11
Ice Chest No.: N/A	Field Logbook No.: EL-1607-10; COA: ~~C00D622600~~ @ 4/25/11 01OD622600	Method of Shipment: HAND DELIVER	
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A	Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

50GHJP0169
Lot#J1026047B
Due 5-3-11

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	G/P	G	G/P	G/P	aG	aG	aG	G/P		
No. of Container(s)	1	1	1	0	1	0	0	1		
Volume	125mL	60mL	60mL	125mL	250mL	250mL	250mL	60g		
SAMPLE ANALYSIS: MHHWC	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196	IC Anions - 9056 Modified; NO2/NO3 - 353.1; pH (Soil) - 9045	Semi-VOA - 8270A (TCL)	PCBs - 8082	Pesticides - 8081	RCF GEA Shipping Screen		
Sample No. / Matrix * / Sample Date / Sample Time										
J1H217 / SOIL / 4/25/11 / 1300			X							

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kevin Lucas	4-25-11 1450	DWOOLEY	4/25/11 1450
DWOOLEY	4/25/11 1700	A. Freier	4-25-11 1700
WCH A. Freier	4-26-11 1050	TALF Cameron Kraupa	4-26-11 1050

SPECIAL INSTRUCTIONS

None

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV)
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}: Mercury (TCLP) - 1311/7470 {Mercury}

REVIEWED BY JEB DATE 4-26-11

JP0169

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

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

WCH-EE-011

J1D260478

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 4.26.11 1050 GM Screen Result (out) .3 (in) .5 Initials CK

Client: WCH SDG #: JP0169 NA [ ] SAF #: RC-074 NA [ ]

Work Order Number: J1D260478 Chain of Custody # RC-074-220

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [CK]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 1 sample @ 1 KJAR 60 MLG
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   - ___ tape
   - CK custody seals
   - ___ hazard labels
   - CK appropriate sample labels

   (Soil)
9. Samples:
   - CK are in good condition
   - ___ are broken
   - ___ are leaking
   - ___ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

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

See other side for additional comments

Sample Custodian: Carmen J Ryan Date: 4.26.11 1050

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager Brandy Jones Date 4/26/11

LS-023, Rev. 12, 10/10

04/27/2011 8:42:07 AM

Sample Preparation/Analysis

Balance Id:

Pipet #:

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

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

Sep1 DT/Tm Tech:

AnalyDueDate: 05/03/2011

Sep2 DT/Tm Tech: JP0169

Batch: 1117142 SOIL mg/kg PM, Quote: RW2, 27038

REQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MHHWC-1-AA J1D260478-1-SAMP 04/25/2011 13:00		2.5008 AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
2 MHHWC-1-AC-S J1D260478-1-MS 04/25/2011 13:00		2.5070 AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
3 MHHWC-1-AD-D J1D260478-1-MSD 04/25/2011 13:00		AmtRec: 1XJAR60MLG	#Containers: 1	2.5058 pb cro4				Scr:	Alpha:	Beta:
4 MHHWC-1-AE-X J1D260478-1-DUP 04/25/2011 13:00		2.5035 AmtRec: 1XJAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
5 MHJ2G-1-AA-B J1D270000-142-BLK 04/27/2011 08:42 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
6 MHJ2G-1-AC-C J1D270000-142-LCS 04/27/2011 08:42 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

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: 05/03/2011

Batch: 1117142 mg/kg
REQ Batch, Test: None

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

Comments:

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

MHHWC1AA-SAMP Constituent List:
HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20
MHHWC1AC-MS Constituent List:

MHHWC1AD-MSD:

MHJ2G1AA-BLK:

MHJ2G1AC-LCS:

MHHWC1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHHWC1AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHHWC1AD-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHJ2G1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHJ2G1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-15106-1

SDG Number: JP0169

Job Description: SAF# RC-074

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
5/4/2011 2:30 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
05/04/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-15106-1

SDG #: JP0169
SAF#: RC-074

Date SDG Closed: April 29, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H217	280-15106-1	6010/7471/1311-6010-7470/9056M/353.1/ 9045/8270A/8082/8081	6010B/7471A/1311-6010B-7470A/9056M/353.2/ 9045C/8270C/8082/8081A

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 sample was received on 4/27/2011 and 4/29/2011; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.5 C and 4.3 C.

Insufficient volume was received at the laboratory on 4/27/2011 to perform the requested Anions 9056M and Nitrate+Nitrite as N 353.2 analyses for sample J1H217. The client was notified on 4/28/2011. Additional volume was received at the laboratory on 4/29/2011 to proceed with the requested Anions 9056M and Nitrate+Nitrite as N 353.2 analyses.

GC/MS SEMIVOLATILES - SW846 8270C

Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in sample J1H217 due to matrix interferences. It can be noted that these compounds were adequately resolved in associated standards, indicating the instrument is achieving separation. The combined peak was reported as Benzo(b)fluoranthene, while Benzo(k)fluoranthene was reported as undetected even though it may be present. Associated results have been flagged with a "K".

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8081A - PESTICIDEs

The RPD between the primary and confirmation columns exceeded 40% for 4,4'-DDT and alpha-BHC in sample J1H217. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

The method required MS/MSD could not be performed for batch 280-64519, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

A Continuing Calibration Verification (CCV) standard exhibited the %Difference (%D) value >15%, biased low, on the primary column for Endrin aldehyde (-15.9%). The overall mean %D is ≤15%; therefore, method criteria have been met and corrective action is deemed unnecessary. It can be noted that data for Endrin aldehyde were reported from the confirmation column.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs
The laboratory noted that a Sulfuric Acid clean-up was performed on sample J1H217 to reduce matrix interferences.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, sample J1H217 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required.

Surrogate recoveries have been "D" flagged in sample J1H217, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

The RPD between the primary and confirmation columns exceeded 25% for Aroclor 1254 in sample J1H217. The result has been flagged with a "P".

The laboratory noted that sample J1H217 contained more than one Aroclor component. Results should be considered estimated due to shared peaks.

The method required MS/MSD could not be performed for batch 280-64480, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-64437 indicates that physical and chemical interferences are present for Zinc. Results have been flagged with an "X".

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. Due to high constituent concentration, the Mercury analysis of sample J1H217 had to be performed at a dilution. The reporting limit has been adjusted relative to the dilution required.

Low levels of Barium, Manganese and Zinc are present in the method blank associated with batch 280-64437. Because the concentrations in the method blank are not present at levels greater than the reporting limits, corrective action is deemed unnecessary.

Due to insufficient sample volume submitted by the client, the Matrix Spike and Sample Duplicate analysis for SW846 6010B batch 280-64437 and SW846 7471A batch 280-64422 could not be performed. Duplicate LCS (LCSD) were analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

TCLP METALS - SW846 1311/6010B/7470A
Low levels of Barium are present in the method blank associated with batch 280-64610. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

The duplicate analysis of sample J1H217 exhibited RPD data outside the control limits for Lead, and the associated sample result has been flagged "M". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE as N
Each sample is analyzed to achieve the lowest possible reporting limit within the constraints of the method. Due to high constituent concentration, sample J1H217 had to be analyzed at a dilution, and the associated result has been flagged with a "D". The reporting limit has been adjusted relative to the dilution required.

The Matrix Spike performed on sample J1H217 exhibited the percent recovery outside the control limits, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

Due to insufficient sample volume submitted by the client, the Sample Duplicate analysis for batch 280-65002 could not be performed. The associated aqueous duplicate LCS (LCSD) are included to provide some evidence of batch precision.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, the Nitrate as N and Sulfate analyses of sample J1H217 had to be performed at dilutions, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilutions required.

The Matrix Spike performed on sample J1H217 exhibited percent recoveries outside the control limits for Bromide, Orthophosphate as P, Fluoride and Sulfate, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

Due to insufficient sample volume submitted by the client, the Sample Duplicate analysis for batches 280-64945 and 280-64946 could not be performed. The associated aqueous duplicate LCS (LCSD) are included to provide some evidence of batch precision.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9045C - PH

Due to insufficient sample volume submitted by the client, the Sample Duplicate analysis for batch 280-64737 could not be performed. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
	J	Indicates an Estimated Value for TICs
	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.
GC Semi VOA		
	U	Analyzed for but not detected.
	X	More than 40% difference between columns, lower result reported.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	The reported value is from a dilution.
	P	This flag is used for an aroclor target analyte where there is greater than 25% difference for detected concentrations between the two GC columns
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	M	Sample duplicate precision not met.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Section	Qualifier	Description
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	M	Sample duplicate precision not met.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Organochlorine Pesticides (GC)	TAL DEN	SW846 8081A	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Total Metals	TAL DEN		SW846 3010A
TCLP Mercury	TAL DEN	SW846 7470A	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Mercury	TAL DEN		SW846 7470A
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
pH	TAL DEN	SW846 9045C	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8081A	Ream, Brian E	BER
SW846 8082	Pavlakovich, Adam M	AMP
SW846 6010B	Harre, John K	JKH
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Niman, Katie M	KMN
MCAWW 353.2	Stosak, Lara E	LES
SW846 9045C	Ayala, Delaina	DA
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-15106-1	J1H217	Solid	04/25/2011 1300	04/27/2011 1200

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid

% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-64483	Lab File ID:	B4530.D
Dilution:	1.0			Initial Weight/Volume:	31.4 g
Analysis Date:	04/28/2011 1851			Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		13	U	13	400
Acenaphthylene		21	U	21	400
Anthracene		29	J	21	400
Benzo[a]anthracene		150	J	24	400
Benzo[a]pyrene		160	J	24	400
Benzo[b]fluoranthene		270	J K	32	400
Benzo[ghi]perylene		160	J	20	400
Benzo[k]fluoranthene		49	U K	49	400
Bis(2-chloroethoxy)methane		28	U	28	400
Bis(2-chloroethyl)ether		20	U	20	400
bis (2-chloroisopropyl) ether		28	U	28	400
Bis(2-ethylhexyl) phthalate		1200		56	400
4-Bromophenyl phenyl ether		23	U	23	400
Butyl benzyl phthalate		52	U	52	400
Carbazole		44	U	44	400
4-Chloroaniline		100	U	100	400
4-Chloro-3-methylphenol		81	U	81	400
2-Chloronaphthalene		12	U	12	400
2-Chlorophenol		26	U	26	400
4-Chlorophenyl phenyl ether		26	U	26	400
Chrysene		190	J	33	400
Dibenz(a,h)anthracene		23	U	23	400
Dibenzofuran		24	U	24	400
1,2-Dichlorobenzene		27	U	27	400
1,3-Dichlorobenzene		15	U	15	400
1,4-Dichlorobenzene		58	J	17	400
3,3'-Dichlorobenzidine		110	U	110	810
2,4-Dichlorophenol		12	U	12	400
Diethyl phthalate		32	U	32	400
2,4-Dimethylphenol		81	U	81	400
Dimethyl phthalate		28	U	28	400
Di-n-butyl phthalate		5000		35	400
4,6-Dinitro-2-methylphenol		400	U	400	810
2,4-Dinitrophenol		410	U	410	1000
2,4-Dinitrotoluene		81	U	81	400
2,6-Dinitrotoluene		34	U	34	400
Di-n-octyl phthalate		18	U	18	400
Fluoranthene		230	J	44	400
Fluorene		22	U	22	400
Hexachlorobenzene		35	U	35	400
Hexachlorobutadiene		12	U	12	400
Hexachlorocyclopentadiene		61	U	61	400
Hexachloroethane		26	U	26	400
Indeno[1,2,3-cd]pyrene		120	J	27	400
Isophorone		21	U	21	400
2-Methylnaphthalene		23	U	23	400

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid

% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-64483	Lab File ID:	B4530.D
Dilution:	1.0			Initial Weight/Volume:	31.4 g
Analysis Date:	04/28/2011 1851			Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		16	U	16	400
3 & 4 Methylphenol		40	U	40	400
Naphthalene		38	U	38	400
2-Nitroaniline		61	U	61	400
3-Nitroaniline		89	U	89	400
4-Nitroaniline		88	U	88	400
Nitrobenzene		27	U	27	400
2-Nitrophenol		12	U	12	400
4-Nitrophenol		120	U	120	810
N-Nitrosodi-n-propylamine		38	U	38	400
N-Nitrosodiphenylamine		26	U	26	400
Pentachlorophenol		400	U	400	810
Phenanthrene		86	J	21	400
Phenol		22	U	22	400
Pyrene		240	J	15	400
1,2,4-Trichlorobenzene		34	U	34	400
2,4,5-Trichlorophenol		12	U	12	400
2,4,6-Trichlorophenol		12	U	12	400

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	83		50 - 120
2-Fluorophenol	76		53 - 120
Nitrobenzene-d5	78		50 - 120
Phenol-d5	81		52 - 120
Terphenyl-d14	91		55 - 120
2,4,6-Tribromophenol	89		51 - 120

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid % Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-64483	Lab File ID:	B4530.D
Dilution:	1.0			Initial Weight/Volume:	31.4 g
Analysis Date:	04/28/2011 1851			Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **19**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
141-79-7	3-Penten-2-one, 4-methyl-	2.76	250	N J
	Unknown	3.19	2900	N J
108-94-1	Cyclohexanone	3.77	1300	N J
100-51-6	Benzyl alcohol	4.92	17	J J N
	Unknown	5.20	290	N J
544-76-3	Hexadecane	8.11	22	J J N
70-55-3	Benzenesulfonamide, 4-methyl-	8.53	230	N J
	Unknown	9.37	490	N J
	Unknown	9.40	210	N J
	Unknown	9.52	170	N J
	Unknown	9.77	1200	N J
	Unknown	9.88	190	N J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.68	1800	N J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.78	1800	N J
	Unknown	11.88	740	N J
	Unknown	12.62	2300	N J
	Unknown	12.80	4500	N J
53584-60-4	28-Nor-17.alpha.(H)-hopane	12.85	3300	N J
	Unknown	13.19	2200	N J

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid
% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-64752	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-64519	Initial Weight/Volume:	30.0 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 2037			Injection Volume:	
Prep Date:	04/28/2011 0900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.70	U	0.70	2.2
4,4'-DDE		12		0.30	2.2
4,4'-DDT		4.3	X	0.75	2.2
Aldrin		0.32	U	0.32	2.1
alpha-BHC		4.5	X	0.27	2.1
beta-BHC		0.85	U	0.85	2.1
delta-BHC		0.51	U	0.51	2.1
gamma-BHC (Lindane)		0.59	U	0.59	2.1
Heptachlor		0.27	U	0.27	2.1
Heptachlor epoxide		0.54	U	0.54	2.1
Endosulfan I		0.22	U	0.22	2.1
Endosulfan II		0.37	U	0.37	2.2
Endosulfan sulfate		0.35	U	0.35	2.2
Endrin		0.39	U	0.39	2.2
Endrin aldehyde		0.22	U	0.22	2.2
Endrin ketone		0.62	U	0.62	2.2
gamma-Chlordane		5.3		0.34	2.2
Methoxychlor		0.57	U	0.57	4.2
alpha-Chlordane		1.9	J	0.41	2.2
Dieldrin		0.27	U	0.27	2.2
Toxaphene		20	U	20	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		59 - 115
Decachlorobiphenyl	98		63 - 124

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid
% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-65221	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-64480	Initial Weight/Volume:	30.2 g
Dilution:	5.0			Final Weight/Volume:	5000 uL
Analysis Date:	05/02/2011 1228			Injection Volume:	1 uL
Prep Date:	04/27/2011 2355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		18	U D	18	63
Aroclor 1221		51	U D	51	100
Aroclor 1232		13	U D	13	63
Aroclor 1242		30	U D	30	63
Aroclor 1248		30	U D	30	63
Aroclor 1254		350	D P	16	63
Aroclor 1260		500	D	16	63

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	99	D	59 - 130
Tetrachloro-m-xylene	91	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid
% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-65030	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64437	Lab File ID:	25A4042911.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	04/29/2011 1934			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8100		1.9	6.1
Antimony		1.7		0.46	0.73
Arsenic		6.9		0.80	1.2
Barium		1550		0.092	0.61
Boron		6.7		1.2	2.4
Cadmium		5.8		0.050	0.24
Chromium		211		0.071	0.24
Cobalt		8.8		0.12	1.2
Copper		79.1		0.26	1.2
Lead		97.1		0.33	0.61
Manganese		343		0.12	1.2
Molybdenum		4.4		0.32	2.4
Nickel		16.4		0.15	4.9
Potassium		1620		49.9	365
Selenium		1.0	U	1.0	1.2
Silver		3.2		0.19	0.24
Sodium		600		71.8	146
Vanadium		49.3		0.11	2.4
Zinc		1400	X	0.48	1.2

Analysis Method:	6010B	Analysis Batch:	280-65248	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64437	Lab File ID:	25A1050211.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	05/02/2011 1621			Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.040	U	0.040	0.24
Calcium		14300		17.2	60.8
Iron		22900		4.6	6.1
Magnesium		4710		4.5	24.3
Silicon		293		6.9	12.2

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-65253	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-64610	Lab File ID:	25A6050211.asc
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	10 mL
Analysis Date:	05/03/2011 0019			Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 1500				
Leach Date:	04/27/2011 1753				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.23	B	0.0020	1.0
Cadmium		0.080	B	0.0020	0.10
Chromium		0.047	B	0.0030	0.50
Lead		0.016	B M	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-65036	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-64674	Lab File ID:	110429AC.txt
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	30 mL
Analysis Date:	04/30/2011 0048			Final Weight/Volume:	30 mL
Prep Date:	04/29/2011 1200				
Leach Date:	04/27/2011 1753				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.00049	B	0.000030	0.0020

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-64422	Lab File ID:	110428AA.txt
Dilution:	100			Initial Weight/Volume:	0.69 g
Analysis Date:	04/28/2011 1548			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		23.9		0.61	1.9

General Chemistry

Client Sample ID: **J1H217**

Lab Sample ID: 280-15106-1
Client Matrix: Solid

% Moisture: 21.7

Date Sampled: 04/25/2011 1300
Date Received: 04/27/2011 1200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	367	D N	mg/Kg	4.6	9.6	10	353.2
Analysis Batch: 280-65002	Analysis Date: 04/30/2011 1142						DryWt Corrected: Y
Chloride-Soluble	19.9		mg/Kg	2.5	6.4	1.0	9056M
Analysis Batch: 280-64946	Analysis Date: 04/29/2011 1437						DryWt Corrected: Y
Nitrate as N-Soluble	331	D	mg/Kg	2.0	16.0	5.0	9056M
Analysis Batch: 280-64945	Analysis Date: 04/29/2011 1527						DryWt Corrected: Y
Bromide-Soluble	0.50	U N	mg/Kg	0.50	2.6	1.0	9056M
Analysis Batch: 280-64946	Analysis Date: 04/29/2011 1437						DryWt Corrected: Y
Nitrite as N-Soluble	0.43	U	mg/Kg	0.43	3.2	1.0	9056M
Analysis Batch: 280-64945	Analysis Date: 04/29/2011 1437						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.6	U N	mg/Kg	1.6	6.4	1.0	9056M
Analysis Batch: 280-64945	Analysis Date: 04/29/2011 1437						DryWt Corrected: Y
Sulfate-Soluble	2620	D N	mg/Kg	11.1	31.9	5.0	9056M
Analysis Batch: 280-64946	Analysis Date: 04/29/2011 1527						DryWt Corrected: Y
Fluoride-Soluble	1.1	U N	mg/Kg	1.1	6.4	1.0	9056M
Analysis Batch: 280-64946	Analysis Date: 04/29/2011 1437						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	7.41		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-64737	Analysis Date: 04/28/2011 1025						DryWt Corrected: N
Percent Moisture	21.7	M	%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-64531	Analysis Date: 04/28/2011 0830						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-64483					
LCS 280-64483/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-64483/1-A	Method Blank	T	Solid	3550C	
280-15106-1	J1H217	T	Solid	3550C	
280-15106-1MS	Matrix Spike	T	Solid	3550C	
280-15106-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-64735					
LCS 280-64483/2-A	Lab Control Sample	T	Solid	8270C	280-64483
MB 280-64483/1-A	Method Blank	T	Solid	8270C	280-64483
280-15106-1	J1H217	T	Solid	8270C	280-64483
280-15106-1MS	Matrix Spike	T	Solid	8270C	280-64483
280-15106-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-64483

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-64480					
LCS 280-64480/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-64480/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-64480/1-A	Method Blank	T	Solid	3550C	
280-15106-1	J1H217	T	Solid	3550C	
Prep Batch: 280-64519					
LCS 280-64519/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-64519/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-64519/1-A	Method Blank	T	Solid	3550C	
280-15106-1	J1H217	T	Solid	3550C	
Analysis Batch:280-64752					
LCS 280-64519/2-A	Lab Control Sample	T	Solid	8081A	280-64519
LCSD 280-64519/3-A	Lab Control Sample Duplicate	T	Solid	8081A	280-64519
MB 280-64519/1-A	Method Blank	T	Solid	8081A	280-64519
280-15106-1	J1H217	T	Solid	8081A	280-64519
Analysis Batch:280-65221					
LCS 280-64480/2-A	Lab Control Sample	T	Solid	8082	280-64480
LCSD 280-64480/3-A	Lab Control Sample Duplicate	T	Solid	8082	280-64480
MB 280-64480/1-A	Method Blank	T	Solid	8082	280-64480
280-15106-1	J1H217	T	Solid	8082	280-64480

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-64422					
LCS 280-64422/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 280-64422/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 280-64422/1-A	Method Blank	T	Solid	7471A	
280-15106-1	J1H217	T	Solid	7471A	
Prep Batch: 280-64437					
LCS 280-64437/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 280-64437/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
MB 280-64437/1-A	Method Blank	T	Solid	3050B	
280-15106-1	J1H217	T	Solid	3050B	
Prep Batch: 280-64464					
LCS 280-64464/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-64464/2-C	Lab Control Sample	P	Solid	1311	
LB 280-64464/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-64464/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-15106-1	J1H217	P	Solid	1311	
280-15106-1DU	Duplicate	P	Solid	1311	
280-15106-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-64610					
LCS 280-64464/2-B	Lab Control Sample	P	Solid	3010A	280-64464
LB 280-64464/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-64464
280-15106-1	J1H217	P	Solid	3010A	280-64464
280-15106-1DU	Duplicate	P	Solid	3010A	280-64464
280-15106-1MS	Matrix Spike	P	Solid	3010A	280-64464
Prep Batch: 280-64674					
LCS 280-64464/2-C	Lab Control Sample	P	Solid	7470A	280-64464
LB 280-64464/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-64464
280-15106-1	J1H217	P	Solid	7470A	280-64464
280-15106-1DU	Duplicate	P	Solid	7470A	280-64464
280-15106-1MS	Matrix Spike	P	Solid	7470A	280-64464
Analysis Batch:280-64749					
LCS 280-64422/2-A	Lab Control Sample	T	Solid	7471A	280-64422
LCSD 280-64422/3-A	Lab Control Sample Duplicate	T	Solid	7471A	280-64422
MB 280-64422/1-A	Method Blank	T	Solid	7471A	280-64422
280-15106-1	J1H217	T	Solid	7471A	280-64422
Analysis Batch:280-65030					
LCS 280-64437/2-A	Lab Control Sample	T	Solid	6010B	280-64437
LCSD 280-64437/3-A	Lab Control Sample Duplicate	T	Solid	6010B	280-64437
MB 280-64437/1-A	Method Blank	T	Solid	6010B	280-64437
280-15106-1	J1H217	T	Solid	6010B	280-64437

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-65036					
LCS 280-64464/2-C	Lab Control Sample	P	Solid	7470A	280-64674
LB 280-64464/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-64674
280-15106-1	J1H217	P	Solid	7470A	280-64674
280-15106-1DU	Duplicate	P	Solid	7470A	280-64674
280-15106-1MS	Matrix Spike	P	Solid	7470A	280-64674
Analysis Batch:280-65248					
LCS 280-64437/2-A	Lab Control Sample	T	Solid	6010B	280-64437
LCSD 280-64437/3-A	Lab Control Sample Duplicate	T	Solid	6010B	280-64437
MB 280-64437/1-A	Method Blank	T	Solid	6010B	280-64437
280-15106-1	J1H217	T	Solid	6010B	280-64437
Analysis Batch:280-65253					
LCS 280-64464/2-B	Lab Control Sample	P	Solid	6010B	280-64610
LB 280-64464/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-64610
280-15106-1	J1H217	P	Solid	6010B	280-64610
280-15106-1DU	Duplicate	P	Solid	6010B	280-64610
280-15106-1MS	Matrix Spike	P	Solid	6010B	280-64610

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-64521					
280-15106-1	J1H217	S	Solid	DI Leach	
Analysis Batch:280-64531					
280-15106-1	J1H217	T	Solid	D-2216	
280-15106-1DU	Duplicate	T	Solid	D-2216	
Analysis Batch:280-64737					
LCS 280-64737/4	Lab Control Sample	T	Water	9045C	
LCSD 280-64737/5	Lab Control Sample Duplicate	T	Water	9045C	
280-15106-1	J1H217	S	Solid	9045C	
Prep Batch: 280-64846					
LCS 280-64846/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-64846/2-A	Method Blank	S	Solid	DI Leach	
280-15106-1	J1H217	S	Solid	DI Leach	
280-15106-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-64945					
LCS 280-64846/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-64846/2-A	Method Blank	S	Solid	9056M	
LCS 280-64945/11	Lab Control Sample	T	Water	9056M	
LCSD 280-64945/12	Lab Control Sample Duplicate	T	Water	9056M	
280-15106-1	J1H217	S	Solid	9056M	
280-15106-1MS	Matrix Spike	S	Solid	9056M	
Analysis Batch:280-64946					
LCS 280-64846/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-64846/2-A	Method Blank	S	Solid	9056M	
LCS 280-64946/11	Lab Control Sample	T	Water	9056M	
LCSD 280-64946/12	Lab Control Sample Duplicate	T	Water	9056M	
280-15106-1	J1H217	S	Solid	9056M	
280-15106-1MS	Matrix Spike	S	Solid	9056M	
Prep Batch: 280-64961					
LCS 280-64961/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-64961/2-A	Method Blank	S	Solid	DI Leach	
280-15106-1	J1H217	S	Solid	DI Leach	
280-15106-1MS	Matrix Spike	S	Solid	DI Leach	

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-65002					
LCS 280-64961/1-A	Lab Control Sample	S	Solid	353.2	
MB 280-64961/2-A	Method Blank	S	Solid	353.2	
LCS 280-65002/77	Lab Control Sample	T	Water	353.2	
LCSD 280-65002/78	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-65002/76	Method Blank	T	Water	353.2	
280-15106-1	J1H217	S	Solid	353.2	
280-15106-1MS	Matrix Spike	S	Solid	353.2	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64483

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-64483/1-A	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-64483	Lab File ID:	B4513.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.5 g
Analysis Date:	04/28/2011 1316	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.5	U	9.5	300
Acenaphthylene	16	U	16	300
Anthracene	16	U	16	300
Benzo[a]anthracene	18	U	18	300
Benzo[a]pyrene	18	U	18	300
Benzo[b]fluoranthene	24	U	24	300
Benzo[ghi]perylene	15	U	15	300
Benzo[k]fluoranthene	37	U	37	300
Bis(2-chloroethoxy)methane	21	U	21	300
Bis(2-chloroethyl)ether	15	U	15	300
bis (2-chloroisopropyl) ether	21	U	21	300
Bis(2-ethylhexyl) phthalate	42	U	42	300
4-Bromophenyl phenyl ether	18	U	18	300
Butyl benzyl phthalate	40	U	40	300
Carbazole	33	U	33	300
4-Chloroaniline	76	U	76	300
4-Chloro-3-methylphenol	61	U	61	300
2-Chloronaphthalene	9.2	U	9.2	300
2-Chlorophenol	19	U	19	300
4-Chlorophenyl phenyl ether	19	U	19	300
Chrysene	25	U	25	300
Dibenz(a,h)anthracene	18	U	18	300
Dibenzofuran	18	U	18	300
1,2-Dichlorobenzene	20	U	20	300
1,3-Dichlorobenzene	11	U	11	300
1,4-Dichlorobenzene	13	U	13	300
3,3'-Dichlorobenzidine	83	U	83	610
2,4-Dichlorophenol	9.2	U	9.2	300
Diethyl phthalate	24	U	24	300
2,4-Dimethylphenol	61	U	61	300
Dimethyl phthalate	21	U	21	300
Di-n-butyl phthalate	27	U	27	300
4,6-Dinitro-2-methylphenol	300	U	300	610
2,4-Dinitrophenol	310	U	310	760
2,4-Dinitrotoluene	61	U	61	300
2,6-Dinitrotoluene	26	U	26	300
Di-n-octyl phthalate	13	U	13	300
Fluoranthene	33	U	33	300
Fluorene	17	U	17	300
Hexachlorobenzene	27	U	27	300
Hexachlorobutadiene	9.2	U	9.2	300
Hexachlorocyclopentadiene	46	U	46	300
Hexachloroethane	20	U	20	300
Indeno[1,2,3-cd]pyrene	20	U	20	300
Isophorone	16	U	16	300

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64483

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-64483/1-A	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-64483	Lab File ID:	B4513.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.5 g
Analysis Date:	04/28/2011 1316	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	18	U	18	300
2-Methylphenol	12	U	12	300
3 & 4 Methylphenol	30	U	30	300
Naphthalene	29	U	29	300
2-Nitroaniline	46	U	46	300
3-Nitroaniline	67	U	67	300
4-Nitroaniline	67	U	67	300
Nitrobenzene	20	U	20	300
2-Nitrophenol	9.2	U	9.2	300
4-Nitrophenol	90	U	90	610
N-Nitrosodi-n-propylamine	29	U	29	300
N-Nitrosodiphenylamine	19	U	19	300
Pentachlorophenol	300	U	300	610
Phenanthrene	16	U	16	300
Phenol	17	U	17	300
Pyrene	11	U	11	300
1,2,4-Trichlorobenzene	26	U	26	300
2,4,5-Trichlorophenol	9.2	U	9.2	300
2,4,6-Trichlorophenol	9.2	U	9.2	300

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	80	50 - 120
2-Fluorophenol	80	53 - 120
Nitrobenzene-d5	79	50 - 120
Phenol-d5	82	52 - 120
Terphenyl-d14	82	55 - 120
2,4,6-Tribromophenol	83	51 - 120

Method Blank TICs- Batch: 280-64483

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	3.20	2170	N J

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample - Batch: 280-64483

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-64483/2-A	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-64483	Lab File ID:	B4514.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.7 g
Analysis Date:	04/28/2011 1336	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2520	2130	84	52 - 120	
Anthracene	2520	2350	93	57 - 120	
Carbazole	2520	2270	90	54 - 120	
4-Chloro-3-methylphenol	2520	2200	87	57 - 120	
2-Chlorophenol	2520	2090	83	53 - 120	
1,4-Dichlorobenzene	2520	1890	75	46 - 120	
2,4-Dinitrotoluene	2520	2370	94	53 - 120	
2-Methylnaphthalene	2520	2030	81	55 - 120	
2-Methylphenol	2520	1980	78	51 - 120	
4-Nitrophenol	2520	2490	99	41 - 120	
N-Nitrosodi-n-propylamine	2520	1970	78	51 - 120	
Pentachlorophenol	2520	2220	88	30 - 120	
Phenol	2520	2020	80	54 - 120	
Pyrene	2520	2300	91	50 - 120	
1,2,4-Trichlorobenzene	2520	1920	76	50 - 120	
2,4,6-Trichlorophenol	2520	2310	91	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	81	50 - 120
2-Fluorophenol	77	53 - 120
Nitrobenzene-d5	78	50 - 120
Phenol-d5	78	52 - 120
Terphenyl-d14	91	55 - 120
2,4,6-Tribromophenol	90	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-64483

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-15106-1	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-64483	Lab File ID:	B4531.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.1 g
Analysis Date:	04/28/2011 1910			Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-15106-1	Analysis Batch:	280-64735	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-64483	Lab File ID:	B4532.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/28/2011 1930			Final Weight/Volume:	1000 uL
Prep Date:	04/27/2011 2230			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	86	89	52 - 120	6	30		
Anthracene	90	93	57 - 120	7	30		
Carbazole	85	87	54 - 120	6	30		
4-Chloro-3-methylphenol	90	93	57 - 120	6	30		
2-Chlorophenol	84	87	53 - 120	6	30		
1,4-Dichlorobenzene	72	74	46 - 120	6	30		
2,4-Dinitrotoluene	91	95	53 - 120	7	30		
2-Methylnaphthalene	83	87	55 - 120	7	30		
2-Methylphenol	83	87	51 - 120	8	30		
4-Nitrophenol	100	101	41 - 120	4	30		
N-Nitrosodi-n-propylamine	81	83	51 - 120	5	30		
Pentachlorophenol	93	98	30 - 120	8	30		
Phenol	83	85	54 - 120	6	30		
Pyrene	94	96	50 - 120	5	38		
1,2,4-Trichlorobenzene	77	79	50 - 120	6	30		
2,4,6-Trichlorophenol	95	98	50 - 120	7	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	84	86	50 - 120
2-Fluorophenol	77	79	53 - 120
Nitrobenzene-d5	80	81	50 - 120
Phenol-d5	81	84	52 - 120
Terphenyl-d14	96	98	55 - 120
2,4,6-Tribromophenol	89	91	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64519

Method: 8081A
Preparation: 3550C

Lab Sample ID:	MB 280-64519/1-A	Analysis Batch:	280-64752	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64519	Lab File ID:	011F1101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.1 g
Analysis Date:	04/28/2011 2053	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/28/2011 0900			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.54	U	0.54	1.7
4,4'-DDE	0.24	U	0.24	1.7
4,4'-DDT	0.59	U	0.59	1.7
Aldrin	0.25	U	0.25	1.6
alpha-BHC	0.21	U	0.21	1.6
beta-BHC	0.66	U	0.66	1.6
delta-BHC	0.40	U	0.40	1.6
gamma-BHC (Lindane)	0.46	U	0.46	1.6
Heptachlor	0.21	U	0.21	1.6
Heptachlor epoxide	0.42	U	0.42	1.6
Endosulfan I	0.18	U	0.18	1.6
Endosulfan II	0.29	U	0.29	1.7
Endosulfan sulfate	0.28	U	0.28	1.7
Endrin	0.30	U	0.30	1.7
Endrin aldehyde	0.17	U	0.17	1.7
Endrin ketone	0.49	U	0.49	1.7
gamma-Chlordane	0.27	U	0.27	1.7
Methoxychlor	0.45	U	0.45	3.3
alpha-Chlordane	0.32	U	0.32	1.7
Dieldrin	0.21	U	0.21	1.7
Toxaphene	16	U	16	160

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	89	59 - 115
Decachlorobiphenyl	98	63 - 124

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64519

Method: 8081A
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-64519/2-A	Analysis Batch:	280-64752	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64519	Lab File ID:	008F0801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	04/28/2011 2003	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/28/2011 0900			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-64519/3-A	Analysis Batch:	280-64752	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64519	Lab File ID:	009F0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	04/28/2011 2020	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/28/2011 0900			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
4,4'-DDD	87	79	57 - 118	9	20		
4,4'-DDE	93	87	61 - 115	7	15		
4,4'-DDT	92	86	53 - 125	6	29		
Aldrin	89	84	60 - 115	6	50		
alpha-BHC	91	85	54 - 115	6	17		
beta-BHC	91	85	58 - 115	7	17		
delta-BHC	92	85	62 - 115	7	19		
gamma-BHC (Lindane)	91	85	59 - 115	6	24		
Heptachlor	92	87	61 - 115	6	18		
Heptachlor epoxide	93	87	62 - 112	6	18		
Endosulfan I	90	84	55 - 115	7	26		
Endosulfan II	91	85	60 - 115	6	20		
Endosulfan sulfate	93	87	58 - 118	7	22		
Endrin	108	102	61 - 121	6	30		
Endrin aldehyde	79	76	54 - 115	4	29		
Endrin ketone	81	76	61 - 118	6	20		
gamma-Chlordane	93	86	60 - 115	7	21		
Methoxychlor	94	86	52 - 123	8	23		
alpha-Chlordane	93	87	60 - 115	6	18		
Dieldrin	93	86	63 - 117	7	25		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	95	89	59 - 115
Decachlorobiphenyl	103	96	63 - 124

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64480

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-64480/1-A	Analysis Batch:	280-65221	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64480	Lab File ID:	004F0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	05/02/2011 1053	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/27/2011 2355			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.6
Aroclor 1221	7.7	U	7.7	16
Aroclor 1232	1.9	U	1.9	9.6
Aroclor 1242	4.5	U	4.5	9.6
Aroclor 1248	4.5	U	4.5	9.6
Aroclor 1254	2.5	U	2.5	9.6
Aroclor 1260	2.5	U	2.5	9.6

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	77	59 - 130
Tetrachloro-m-xylene	92	53 - 128

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64480

Method: 8082
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-64480/2-A	Analysis Batch:	280-65221	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64480	Lab File ID:	005F0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/02/2011 1124	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/27/2011 2355			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-64480/3-A	Analysis Batch:	280-65221	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64480	Lab File ID:	006F0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	05/02/2011 1156	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/27/2011 2355			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aroclor 1016	84	84	54 - 132	5	26		
Aroclor 1260	91	91	62 - 129	5	26		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Decachlorobiphenyl	82	82	59 - 130
Tetrachloro-m-xylene	92	89	53 - 128

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64437

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-64437/1-A	Analysis Batch:	280-65030	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A4042911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/29/2011 1927	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
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	0.168	B	0.076	0.50
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Lead	0.27	U	0.27	0.50
Manganese	0.113	B	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.462	B	0.40	1.0

Method Blank - Batch: 280-64437

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-64437/1-A	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	05/02/2011 1614	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Beryllium	0.033	U	0.033	0.20
Calcium	14.1	U	14.1	50.0
Iron	3.8	U	3.8	5.0
Magnesium	3.7	U	3.7	20.0
Silicon	5.7	U	5.7	10.0

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64437

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 280-64437/2-A	Analysis Batch:	280-65030	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A4042911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/29/2011 1930	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64437/3-A	Analysis Batch:	280-65030	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A4042911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/29/2011 1932	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	94	94	82 - 116	0	20		
Antimony	96	95	82 - 110	1	20		
Arsenic	98	98	85 - 110	0	20		
Barium	98	97	87 - 112	1	20		
Boron	95	94	81 - 110	0	20		
Cadmium	97	96	87 - 110	1	20		
Chromium	96	96	84 - 114	1	20		
Cobalt	95	94	87 - 110	1	20		
Copper	95	94	88 - 110	1	20		
Lead	93	93	86 - 110	1	20		
Manganese	92	90	88 - 110	2	20		
Molybdenum	98	96	86 - 110	2	20		
Nickel	95	94	87 - 110	1	20		
Potassium	104	103	89 - 110	1	20		
Selenium	93	92	83 - 110	2	20		
Silver	94	93	87 - 114	1	20		
Sodium	109	108	90 - 112	1	20		
Vanadium	94	92	88 - 110	2	20		
Zinc	90	89	76 - 114	1	20		

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64437

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 280-64437/2-A	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	05/02/2011 1616	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64437/3-A	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64437	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	05/02/2011 1619	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/29/2011 0700				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Beryllium	99	98	84 - 114	1	20		
Calcium	101	100	82 - 114	1	20		
Iron	100	100	87 - 120	0	20		
Magnesium	102	101	90 - 110	1	20		
Silicon	20	22	10 - 70	8	20		

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

TCLP SPLPE Leachate Blank - Batch: 280-64610

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-64464/1-B	Analysis Batch:	280-65253	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64610	Lab File ID:	25A6050211.asc
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	10 mL
Analysis Date:	05/03/2011 0014	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 1500				
Leach Date:	04/27/2011 1753				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.00355	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Lead	0.013	U	0.013	0.50
Selenium	0.024	U	0.024	0.10
Silver	0.0040	U	0.0040	0.50

Lab Control Sample - Batch: 280-64610

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-64464/2-B	Analysis Batch:	280-65253	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64610	Lab File ID:	25A6050211.asc
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	10 mL
Analysis Date:	05/03/2011 0017	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 1500				
Leach Date:	04/27/2011 1753				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	4.04	101	80 - 120	
Barium	12.0	13.68	114	80 - 120	
Cadmium	1.10	1.19	108	80 - 120	
Chromium	5.20	5.65	109	80 - 120	
Lead	5.50	5.98	109	80 - 120	
Selenium	3.00	3.20	107	80 - 120	
Silver	1.05	1.20	115	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Matrix Spike - Batch: 280-64610

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15106-1	Analysis Batch:	280-65253	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64610	Lab File ID:	25A6050211.asc
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	10 mL
Analysis Date:	05/03/2011 0024	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 1500				
Leach Date:	04/27/2011 1753				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	4.21	105	80 - 120	
Barium	0.23	B	12.0	14.12	116	80 - 120	
Cadmium	0.080	B	1.10	1.31	112	80 - 120	
Chromium	0.047	B	5.20	5.74	110	80 - 120	
Lead	0.016	B	5.50	6.05	110	80 - 120	
Selenium	0.024	U	3.00	3.31	110	80 - 120	
Silver	0.0040	U	1.05	1.22	116	80 - 120	

Duplicate - Batch: 280-64610

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15106-1	Analysis Batch:	280-65253	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64610	Lab File ID:	25A6050211.asc
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	10 mL
Analysis Date:	05/03/2011 0026	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 1500				
Leach Date:	04/27/2011 1753				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.0237	NC	20	B
Barium	0.23	B	0.253	11	20	B
Cadmium	0.080	B	0.0892	11	20	B
Chromium	0.047	B	0.0530	11	20	B
Lead	0.016	B	0.0228	35	20	B M
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0040	U	0.00405	NC	20	B

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

TCLP SPLPE Leachate Blank - Batch: 280-64674

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-64464/1-C	Analysis Batch:	280-65036	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64674	Lab File ID:	110429AC.txt
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	30 mL
Analysis Date:	04/30/2011 0044	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/29/2011 1200				
Leach Date:	04/27/2011 1753				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-64674

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-64464/2-C	Analysis Batch:	280-65036	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64674	Lab File ID:	110429AC.txt
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	30 mL
Analysis Date:	04/30/2011 0046	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/29/2011 1200				
Leach Date:	04/27/2011 1753				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00484	97	90 - 116	

Matrix Spike - Batch: 280-64674

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-15106-1	Analysis Batch:	280-65036	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64674	Lab File ID:	110429AC.txt
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	30 mL
Analysis Date:	04/30/2011 0058	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/29/2011 1200				
Leach Date:	04/27/2011 1753				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00049	B	0.00500	0.00621	114	90 - 116	

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Duplicate - Batch: 280-64674

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-15106-1	Analysis Batch:	280-65036	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64674	Lab File ID:	110429AC.txt
Dilution:	1.0	Leach Batch:	280-64464	Initial Weight/Volume:	30 mL
Analysis Date:	04/30/2011 0055	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/29/2011 1200				
Leach Date:	04/27/2011 1753				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.00049	B	0.000472	4	20	B

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64422

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-64422/1-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64422	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1527	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64422

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 280-64422/2-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64422	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1530	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64422/3-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64422	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1532	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	93	104	87 - 111	12	20		

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-65002

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-64961/2-A	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	280-64961	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/30/2011 1139	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/30/2011 0817				

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

Method Blank - Batch: 280-65002

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-65002/76	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/30/2011 1210	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.036	U	0.036	0.075

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Reporting Limit Check - Batch: 280-65002

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-65002/17	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/30/2011 1026	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0803	80	50 - 150	B

Lab Control Sample - Batch: 280-65002

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-64961/1-A	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	280-64961	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/30/2011 1141	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/30/2011 0817				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	50.0	51.28	103	90 - 110	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-65002

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-65002/77	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/30/2011 1211	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-65002/78	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/30/2011 1213	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate Nitrite as N-Soluble	106	105	90 - 110	0	10		

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Matrix Spike - Batch: 280-65002

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-65002	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0430NXN.
Dilution:	10	Leach Batch:	280-64961	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/30/2011 1144	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/30/2011 0817				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	367	51.1	383.2	32	90 - 110	N

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64737

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-64737/4	Analysis Batch:	280-64737	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 1018	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64737/5	Analysis Batch:	280-64737	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 1019	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

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

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-64846/2-A	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	167.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1420	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

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

Method Reporting Limit Check - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-64945/14	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2116	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.202	101	50 - 150	B
Nitrite as N-Soluble	0.200	0.190	95	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.19	60	50 - 150	U

Lab Control Sample - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-64846/1-A	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	166.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1403	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	50.0	51.01	102	90 - 110	
Nitrite as N-Soluble	50.0	51.84	104	90 - 110	
Orthophosphate as P-Soluble	50.0	48.37	97	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64945

Method: 9056M
Preparation: N/A

LCS Lab Sample ID:	LCS 280-64945/11	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	110.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2023	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64945/12	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	111.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2040	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate as N-Soluble	103	102	90 - 110	1	10		
Nitrite as N-Soluble	103	103	90 - 110	0	10		
Orthophosphate as P-Soluble	98	98	90 - 110	1	10		

Matrix Spike - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	169.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1454	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrite as N-Soluble	0.43	U	63.9	64.27	101	80 - 120	
Orthophosphate as P-Soluble	1.6	U	63.9	43.59	68	80 - 120	N

Matrix Spike - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	171.TXT
Dilution:	5.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1552	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	331	63.9	403.0	113	80 - 120	D

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Method Blank - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-64846/2-A	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	167.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1420	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	2.0	U	2.0	5.0
Bromide-Soluble	0.38	U	0.38	2.0
Sulfate-Soluble	1.7	U	1.7	5.0
Fluoride-Soluble	0.81	U	0.81	5.0

Method Reporting Limit Check - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-64946/14	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2116	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.00	1.07	107	50 - 150	B
Bromide-Soluble	0.200	0.186	93	50 - 150	B
Sulfate-Soluble	1.00	1.09	109	50 - 150	B
Fluoride-Soluble	0.200	0.201	100	50 - 150	B

Lab Control Sample - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-64846/1-A	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	166.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1403	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	250	256.2	102	90 - 110	
Bromide-Soluble	50.0	50.58	101	90 - 110	
Sulfate-Soluble	250	257.2	103	90 - 110	
Fluoride-Soluble	50.0	51.91	104	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64946

Method: 9056M
Preparation: N/A

LCS Lab Sample ID:	LCS 280-64946/11	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	110.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2023	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64946/12	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	111.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2040	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloride-Soluble	104	102	90 - 110	2	10		
Bromide-Soluble	101	101	90 - 110	0	10		
Sulfate-Soluble	102	101	90 - 110	1	10		
Fluoride-Soluble	108	104	90 - 110	4	10		

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Matrix Spike - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	169.TXT
Dilution:	1.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1454	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	19.9		319	349.6	103	80 - 120	
Bromide-Soluble	0.50	U	63.9	43.47	68	80 - 120	N
Fluoride-Soluble	1.1	U	63.9	40.18	63	80 - 120	N

Matrix Spike - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	171.TXT
Dilution:	5.0	Leach Batch:	280-64846	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1552	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/29/2011 1242				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate-Soluble	2620	319	3617	313	80 - 120	D N

Client: Washington Closure Hanford

Job Number: 280-15106-1
Sdg Number: JP0169

Duplicate - Batch: 280-64531

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-15106-1	Analysis Batch:	280-64531	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/28/2011 0830	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	21.7	15.3	34	20	M

2.5°c IR1 AB 4/27/11

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-074-220	Page 1 of 1

Collector: K LUCAS	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: ~~81~~ 83 D 4/7/11	Data Turnaround: ~~21~~ 7 Days D 4/7/11		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location: 100-D-62		SAF No.: RC-074
Ice Chest No.: WCH-11-023 D 4/7/11	Field Logbook No.: EL-1607-10	COA: ~~C00D622600~~ D 4/25/11 010D622600	Method of Shipment: FED EX
Shipped To: TestAmerica Incorporated, ~~Richland~~ DENVER	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7970 3074 7090

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	G/P	G	G/P	G/P	aG	aG	aG	G/P		
No. of Container(s)	1	1	1	0	1	0	0	1		
Volume	125mL	60mL	60mL	125mL	250mL	250mL	250mL	60g		
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196	IC Anions - 9056 Modified; NO2/NO3 - 353.1; pH (Soil) - 9045	Semi-VOA - 8270A (TCL)	PCBs - 8082	Pesticides - 8081	RCF GEA Shipping Screen		
Sample No. / Matrix * / Sample Date / Sample Time										
J1H217 / SOIL / 4/25/11 / 1300	X	X		X	X	X	X			

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kenneth Lucas	4-25-11 1450	DWOOLSEY	4/25/11 1450
DWOOLSEY	4/25/11 1700	A. Freier A. Freier	1700 4-25-11
WCH A. Freier A. Freier	1230 4-26-11	Fed Ex	
		Aaron Rinell	4/27/11 1200

SPECIAL INSTRUCTIONS

None

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV)
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}

REVIEWED BY JEB DATE 4-26-11

JP0169

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

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

JEB 4-26-11

COPY

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 -60102 -3.1.0

Analytical Due:

Report Due: 5/4/11 (Rush Sdg TAT)

Sample Check-in List

Date/Time Received: 4/27/11 1200 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: J P0169 NA[ ] SAF #: RC-074 NA [ ]

Job Number: 15106 Chain of Custody # RC-074-220

Shipping Container ID: WCH-11-023 Air Bill # 7970 3074 7090

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: 25° NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [✓] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ___ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added** ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] **Date:** 4/27/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 4/28/11

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

RICHLAND, WA 99354

J11151102250225

Ship Date: 26APR11
ActWgt: 33.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

WED - 27 APR A1
PRIORITY OVERNIGHT

TRK# 0201 7970 3074 7090

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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4.3°c IR1
RB 4/29/11

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-074-220	Page 1 of 1

Collector: K LUCAS	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH	Price Code: 8L 8B	Data Turnaround: ~~21~~ 7 Days
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location: 100-D-62		SAF No.: RC-074	4/7/11	4/7/11
Ice Chest No.: N/A	Field Logbook No.: EL-1607-10	COA ~~C00D622600~~ 4/25/11 C0D622600	Method of Shipment: HAND DELIVER		
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS
None

50GHJP0169
Lot #J1026047B
Due 5-3-11

Special Handling and/or Storage
Cool 4 Deg C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	G/P	G	G/P	G/P	aG	aG	aG	G/P		
No. of Container(s)	1	1	1	0	1	0	0	1		
Volume	125mL	60mL	60mL	125mL	250mL	250mL	250mL	60g		
SAMPLE ANALYSIS: MHHWC	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196	IC Anions - 9056 Modified; NO2/NO3 - 353.1; pH (Soil) - 9045	Semi-VOA - 8270A (TCL)	PCBs - 8082	Pesticides - 8081	RCF GEA Shipping Screen		
Sample No. / Matrix * / Sample Date / Sample Time										
J1H217 / SOIL / 4/25/11 / 1300			X							

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
K. Lucas Kevin Lucas	4-25-11 1450	DWOOLSEY	4/25/11 1450
DWOOLSEY	4/25/11 1700	A-Freier A-Freier	1700 4-25-11
A-Freier A-Freier (WCH)	1050 4-26-11	TALR Cameron Krupa	1050 4-26-11
Lucas Velarquez (TALR)	1420 4/28/11		4/29/11 0930
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS
None

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Variadium, Zinc}; Mercury - 7471 - (CV)
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}: Mercury (TCLP) - 1311/7470 {Mercury}

REVIEWED BY JEB DATE 4-26-11

JP0169

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

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

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142
Analytical Due:
Report Due:

Sample Check-in List

Date/Time Received: 4/29/11 9:30 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP0169 NA[ ] SAF #: RC-074 NA [ ]

Job Number: 280-15106 extra volume from Richland Chain of Custody # RC-074-220

Shipping Container ID: Air Bill # 7970 4201 0672

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 4.3 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - Broken
   - Leaking
   - Have Air Bubbles (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers):

Sample Custodian: Date: 4/29/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 4/29/11

LS-023, Rev. 7, 1/08

From: (509) 375-3131 Origin ID: PSCA
Shipping Dept.
TESTAMERICA LABORATORIES
2800 GEORGE WASHINGTON WAY

RICHLAND, WA 99354

J111511022502225

Ship Date: 28APR11
ActWgt: 10.0 LB
CAD: 1033413/INET3130

Delivery Address Bar Code

SHIP TO: (303) 736-0100 BILL SENDER
SAMPLE RECEIVING DENVER_WCH
TESTAMERICA DENVER (WCH)
4955 YARROW ST

ARVADA, CO 80002

Ref # WCH/RC-119-041
Invoice #
PO #
Dept #

FRI - 29 APR A1
PRIORITY OVERNIGHT

TRK# 7970 4201 0672
0201

XH WHHA

80002
CO-US
DEN

50DG3/28A8/7EFB

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