0092229

SAF-RC-175
ARRA Remaining Sites Characterization Sampling – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 12/1/10
INITIAL/DATE

COMMENTS:

SDG J00927 SAF-RC-175

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-K-92

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DEC 06 2010
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Analytical Data Package Prepared For

Washington Closure Hanford

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NOV 2010

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 28 Pages

Report No.: 45232

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.
J00927	RC-175	J1B534	J0K110435-1	L9VX31AA	9L9VX310	0326486
		J1B535	J0K110435-2	L9VX41AA	9L9VX410	0326486
		J1B536	J0K110435-3	L9VX51AA	9L9VX510	0326486
		J1B537	J0K110435-4	L9VX61AA	9L9VX610	0326486
		J1B631	J0K110435-5	L9VX71AA	9L9VX710	0326486
		J1B632	J0K110435-6	L9VX81AA	9L9VX810	0326486

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

November 29, 2010

Attention: Joan Kessner

SAF Number	:	RC-175
Date SDG Closed	:	November 10, 2010
Number of Samples	:	Six (6)
Sample Type	:	Soil
SDG Number	:	J00927
Data Deliverable	:	21/21 Summary

CASE NARRATIVE

I. Introduction

On November 10, 2010 six water samples were received at TestAmerica for chemistry analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1B534	L9VX3	SOIL	11/10/10
J1B535	L9VX4	SOIL	11/10/10
J1B536	L9VX5	SOIL	11/10/10
J1B537	L9VX6	SOIL	11/10/10
J1B631	L9VX7	SOIL	11/10/10
J1B632	L9VX8	SOIL	11/10/10

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

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 was recovery was low so a PDMS was analyzed. The PDMS recovery was within acceptance limits. Except as noted, the LCS, batch blank, sample, sample duplicate (J1B534) and sample matrix spike (J1B534) 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:

Sandra Seger
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.

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Asbestos	RL-ASB-001	N/A	NIOSH 7400	Fiber Counting by Phase Contrast Microscopy based on NIOSH 7400
Asbestos	RL-ASB-002	N/A	NIOSH 9002	Sample Prep and Analysis for Asbestos (bulk) by Polarized Light Microsopy based on NIOSH 9002
Alpha - Gross	ARCHIVED	RICH-RB-5035	Liquid Scintillation Anal/ Packard	DETERMINATION OF GROSS ALPHA IN NASAL SMEARS BY LIQUID SCINTILLATION COUNTING
Alpha - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Alpha - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Alpha - Gross	RL-GPC-002	RICH-RC-5021	00-02 EPA 520	DETERMINATION OF GROSS ALPHA ACTIVITY IN WATER BY COPRECIPITATION
Alpha - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
Am	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Am	RL-ALP-010	RICH-RC-5080	Am03/Pu11HASL 300 NAS-NS-3006	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Beta - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Beta - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Beta - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
C14	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
C14	RL-LSC-008	RICH-RC-5022	EPA C-01 / EPA 520	CARBON 14 BY DIGESTION METHOD
C14	RL-LSC-009	RICH-RC-5040	Mod C14 / EPA 680	DETERMINATION OF CARBON-14 BY BENZENE SYNTHESIS
C14	RL-LSC-010	RICH-RC-5046	EPA C-01 / EPA 520	DETERMINATION OF CARBON-14 IN GRAPHITE AND SOIL
C14	RL-LSC-011	RICH-RC-5047	Mod H-02 / EPA 520	DETERMINATION OF CARBON-14 IN WATER BY DIRECT COUNTING
Cm	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Coliform	RL-WC-001	RICH-WC-5001	9222B	DETERMINATION OF TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
Coliform	RL-WC-002	RICH-WC-5002	9131	TOTAL COLIFORMS BY MEMBRANE FILTRATION
Coliform	RL-WC-005	RICH-WC-5007	9223	TOTAL COLIFORM BY THE COLILERT METHOD
Cr6+	RL-WC-003	RICH-WC-5003	7196A, SW846	DETERMINATION OF HEXAVALENT CHROMIUM [Cr(VI)] IN WATER, SOIL, AND SIMILAR MATRICES
Cr6+	RL-WC-004	RICH-WC-5005	3060 / SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN SOLID MATRICES WITH ALKALINE DIGESTION
Fe	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Fe55	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Fe59	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Gamma	RL-GAM-001	RICH-RC-5017	901.0 / HASL 300 ASTM D3649	PREPARATION OF ALL MATRICES FOR ANALYSIS BY GAMMA SPECTROSCOPY
H3	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
H3	RL-LSC-003	RICH-RB-5034	7500-3 / SM	DETERMINATION OF TRITIUM IN URINE BY DISTILLATION
H3	RL-LSC-004	RICH-RC-5004	H3 / EPA LV539	DETERMINATION OF TRITIUM IN AIR
H3	RL-LSC-005	RICH-RC-5007	Mod 906.0 / EPA 600	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENT OF WINE
H3	RL-LSC-007	RICH-RC-5024	H-3 by BE EPA LV539 / HASL 300	DETERMINATION OF LOW LEVEL TRITIUM IN WATER BY ELECTROLYTIC ENRICHMENT
H3	RL-LSC-002	RICH-RC-5037	H-3 in Water/Tissue / LV 539	DETERMINATION OF TRITIUM BY CRYOGENIC DISTILLATION
H3	RL-LSC-006	RICH-RC-5048	H-3 in Water/Tissue / LV 539	TRITIUM PREPARATION IN MILK SAMPLES
I129	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	ARCHIVED	RICH-RC-5049	HASL 300 (1983)	DETERMINATION OF IODINE-131 IN MILK BY BATCH ION-EXCHANGE
Metals	ARCHIVED	BHI-MT-0001	6010	ICP-AE SPECTROSCOPY, SPECTROMETRIC METHOD FOR TRACE ELEMENT ANALYSIS, METHOD 6010A FOR Bechtel
Metals	RL-MT-001	RICH-MT-0001	6010B	ICP-AES for TRACE ELEMENT ANALYSIS, METHOD 6010B

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Metals	RL-MT-002	RICH-MT-0002	SW486 3050B	ACID DIGESTION FOR ICP ANALYSIS
Metals	RL-MT-003	RICH-MT-0003	NIOSH 7300	DIGESTION PREP based on METHOD NIOSH 7300
Ni	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFa55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Ni63	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Ni63	RL-LSC-017	RICH-RC-5069	EXT Chromatography Mod RP300 / DOE00089T	SEPARATION OF Ni-63 BY EXTRACTION CHROMATOGRAPHY
Np	RL-ALP-013	RICH-RC-5009	NAS-NS-3060	DETERMINATION OF NEPTUNIUM-237 BY LIQUID-LIQUID EXTRACTION IN ALL MATRICES
Np	RL-ALP-006	RICH-RC-5064	EXT Chromatography	SEPARATION OF NEPTUNIUM BY EXTRACTION CHROMATOGRAPHY
P32	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Pb	RL-ALP-011	RICH-RC-5076	EXT Chromatography	DETERMINATION OF LEAD-210 BY EXTRACTION CHROMATOGRAPHY
Po	RL-ALP-007	RICH-RB-5001	NAS-NS-3037 HASL 300	DETERMINATION OF POLONIUM-210 IN URINE
Po	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
Prep - Bioassay	ARCHIVED	RICH-RB-0001		PREPARATION FOR RAPID BIOASSAY ANALYSES
Prep - Bioassay	RL-PRP-001	RICH-RB-5002	Mod Pu06 / HASL 300	PREPARATION OF URINE AND BLOOD SAMPLES
Prep - Bioassay	ARCHIVED	RICH-RB-5004	ASTM D1429-95	DETERMINATION OF SPECIFIC GRAVITY OF URINE
Prep - Bioassay	RL-RPL-002	RICH-RB-5036	Pub 6490,6601 / PNL	PREPARATION OF SYNTHETIC URINE AND FECES USING RECIPES FROM HPS N13.50 PREFORMANCE TESTING
Prep - Bioassay	RL-PRP-002	RICH-RB-5037	LA-10000-M R200 ASTM D3865	PREPARATION OF FECAL SAMPLES USING HYDROFLUORIC ACID DIGESTION
Prep - Bioassay	RL-RPL-005	RICH-RC-5028	ICRP Publication 23	PREPARATION OF SYNTHETIC URINE AND FECES
Prep - Count	RL-ALP-016	RICH-RC-5003	G-03 / HASL 300	COPRECIPITATION OF SOME ACTINIDES ON NEODYMIUM FLUORIDE FOR ALPHA-PARTICLE SPECTROMETRY
Prep - Count	RL-ALP-015	RICH-RC-5059	G-03 / HASL 300 Anal Chem 1972	ELECTRODEPOSITION OF ACTINIDES
Prep - Count	RL-ALP-014	RICH-RC-5085	Morrison & Freiser NAS-NS-3050	ANHYDROUS ETHER EXTRACTION OF URANIUM
Prep - Env	RL-KPA-001	RICH-RC-5015	ASTM / D5174-97	ENVIRONMENTAL SAMPLE PREPARATION FOR URANIUM BY LASER-INDUCED PHOSPHORESCENCE
Prep - Env	RL-PRP-004	RICH-RC-5016	Sr02 / HASL 300	PREPARATION OF ENVIRONMENTAL MATRICES
Prep - Env	RL-PRP-007	RICH-RC-5045	Mod Pu02 / HASL 300	PREPARATION OF MIXED BED RESINS AND PRE-FILTERS
Prep - Env	RL-PRP-008	RICH-RC-5068	Mod ER100 / LA10300	PREPARATION OF SOIL, VEGETATION AND AIR FILTERS BY MIXED STRONG ACID LEACHING
Prep - Resin	RL-ALP-017	RICH-RC-5018	Mod Pu11 / Mod 300	ION-EXCHANGE PREPARATION
Prep - Soil	RL-PRP-003	RICH-RC-5013	Pu02A / HASL 300	PREPARATION OF SOIL SAMPLES
Prep - Soil	RL-PRP-005	RICH-RC-5019	D5259 / ASTM SW 846/3015/3051/3052	PREPARATION AND DISSOLUTION OF SEDIMENTS AND SOIL BY MICROWAVE BOMB DIGESTION
Prep - Soil	RL-PRP-006	RICH-RC-5032	Pu02A / HASL 300	COMPLETE DISSOLUTION BY MIXED ACIDS IN A TEFLON BEAKER
Prep - Soil	RL-PRP-009	RICH-RC-5077	Mod ER100 / LA10300	PREPARATION OF SMALL SOIL SAMPLES FOR GAMMA SPEC AND/OR RADIOCHEM ANAL BY ACID DIGESTION
Prep - Urine	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Prep - Water	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Pu	ARCHIVED	RICH-RB-5015	Pu11 / HASL 300	RAPID DETERMINATION OF PLUTONIUM IN FECES
Pu	RL-ALP-002	RICH-RC-5010	Pu11 / HASL 300	DETERMINATION OF ISOTOPIC PLUTONIUM IN ALL MATRICES
Pu	RL-ALP-010	RICH-RC-5080	Am03 HASL 300 Pu11 / HASL 300	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Pu	RL-ALP-001	RICH-RC-5087	AnalyticaChemActa1992 RP800 / DOE00089T	DETERMINATION OF PLUTONIUM BY EXTRACTION CHROMATOGRAPHY
Ra	RL-RA-001	RICH-RC-5005	903.1 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-001	RICH-RC-5005	904.0 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-002	RICH-RC-5027	Mod D2460/ ASTM 903.0 / EPA 600	DETERMINATION OF TOTAL RADIUM
Rn	RL-LSC-019	RICH-RC-5082	913.0 / EPA	DETERMINATION OF RADON-222 - ADAPTED FROM METHOD 913.0

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
S35	ARCHIVED	RICH-RB-5020	Hillebrand, Lundell, Bright, Hoffman 1953	DETERMINATION OF SULFUR-35 IN URINE
Se79	RL-LSC-012	RICH-RC-5043	Selenium / NAS-NS-3030	RADIOCHEMICAL DETERMINATION OF SELENIUM-79
Solubility	ARCHIVED	RICH-RC-5035	Kalfward&Thomas PNL3716	DETERMINATION OF SOLUBILITY OF RADIOACTIVE PARTICLE CONSTITUENTS
Sr	RL-GPC-005	RICH-RB-5007	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE
Sr	RL-GPC-006	RICH-RB-5021	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF STRONTIUM IN FECES
Sr	ARCHIVED	RICH-RB-5022	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE FOR RAPID ANALYSIS
Sr	ARCHIVED	RICH-RB-5031	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	RAPID DETERMINATION OF TOTAL STRONTIUM IN FECES
Sr	RL-GPC-003	RICH-RC-5006	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	STRONTIUM SEPARATION IN ENVIROMENTAL MATRICES
Sr - Yt	RL-GPC-004	RICH-RC-5071	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	YTTRIUM-90 SEPARATION FOR STRONTIUM-90 DETERMINATION IN ALL MATRICES
Tc	RL-LSC-014	RICH-RC-5065	EXT Chromatography Mod RP550 / DOE0089T	DETERMINATION OF TECHNETIUM-99 BY EXTRACTION CHROMATOGRAPHY
Tc	RL-LSC-013	RICH-RC-5078	Tc01 / HASL 300	SEPARATION OF TECHNETIUM-99 IN ALL MATRICES
Th	RL-ALP-008	RICH-RB-5006	Mod Th01 / HASL 300	SEPARATION OF THORIUM FROM URINE AND FECAL SAMPLES
Th	RL-ALP-006	RICH-RC-5084	Mod Th01 / HASL 300 Anal Chim Acta 1982	DETERMINATION OF THORIUM ISOTOPIC IN ENVIRONMENTAL MATRICES
U	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 / HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
U	RL-KPA-002	RICH-RC-5031	Mod U01 / HASL 300	SEPARATION OF TOTAL URANIUM IN WATER AND URINE
U	RL-KPA-003	RICH-RC-5058	D5174 / ASTM	DETERMINATION OF URANIUM BY PHOSPHORESCENCE ANALYSIS
U	RL-ALP-004	RICH-RC-5067	EXT Chromatography Mod RP725 / DOE0089T	SEPARATION OF URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-005	RICH-RC-5072	EXT Chrom Mod RP725 & 800 / DOE0089T	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-009	RICH-RC-5079	EXT Chromatography Mod RP725 / DOE0089T	DETERMINATION OF ISOTOPIC URANIUM IN ALL MATRICES

Sample Results Summary

Date: 24-Nov-10

TestAmerica TARL

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

Report No. : 45232 **SDG No:** J00927

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
0326486	7196_CR6								
J1B534									
	L9VX31AA	HEXCHROME	1.34E+01 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
	L9VX31AD	HEXCHROME	1.32E+01 +- 0.0E+00		mg/kg	N/A	1.54E-01	3.50E-01	1.5
J1B535									
	L9VX41AA	HEXCHROME	3.41E+00 +- 0.0E+00		mg/kg	N/A	1.52E-01	1.55E-01	
J1B536									
	L9VX51AA	HEXCHROME	4.35E+00 +- 0.0E+00		mg/kg	N/A	1.53E-01	1.55E-01	
J1B537									
	L9VX61AA	HEXCHROME	4.03E+00 +- 0.0E+00		mg/kg	N/A	1.54E-01	1.55E-01	
J1B631									
	L9VX71AA	HEXCHROME	1.05E+00 +- 0.0E+00		mg/kg	N/A	1.52E-01	1.55E-01	
J1B632									
	L9VX81AA	HEXCHROME	5.65E+00 +- 0.0E+00		mg/kg	N/A	1.52E-01	1.55E-01	

No. of Results: 7

TestAmerica **RPD** - **Relative Percent Difference.**

rptSTLRchSaSum
mary2 V5.2.9
A2002

QC Results Summary

Date: 24-Nov-10

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 45232

SDG No.: J00927

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
7196_CR6								
0326486 BLANK QC,								
MAFCW1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
0326486 LCS,								
MAFCW1AC	HEXCHROME	1.89E+01 +- 0.0E+00		mg/kg	N/A	95%	-0.1	1.55E-01
0326486 MATRIX SPIKE, J1B534								
L9VX31AC	HEXCHROME	6.66E+00 +- 0.0E+00		mg/kg	N/A	65%	-0.4	1.54E-01

No. of Results: 3

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	**SDG:**	J00927	**Collection Date:**	11/9/2010 2:30:00 PM
Lot-Sample No.:	J0K110435-1	**Report No. :**	45232	**Received Date:**	11/10/2010 9:30:00 AM
Client Sample ID:	J1B534	**COC No. :**	RC-175-001	**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: 0326486	7196_CR6			**Work Order:** L9VX31AA			**Report DB ID:** 9L9VX310					
HEXCHROME	***1.34E+01***			0.0E+00	1.54E-01	mg/kg	N/A	*(87.1)*	11/22/10 10:40 a		2.5164	
							1.55E-01	*N/A*			g	

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

TestAmerica
rptSTLRchSample
V5.2.9 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, Total Uncert,CRDL, or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	SDG:	J00927	Collection Date:	11/9/2010 2:50:00 PM
Lot-Sample No.:	J0K110435-2	Report No. :	45232	Received Date:	11/10/2010 9:30:00 AM
Client Sample ID:	J1B535	COC No. :	RC-175-001	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: 0326486	7196_CR6			Work Order: L9VX41AA			Report DB ID: 9L9VX410					
HEXCHROME	***3.41E+00***			0.0E+00	1.52E-01	mg/kg	N/A	*(22.4)*	11/22/10 10:40 a		2.549	
							1.55E-01	*N/A*			9	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchSample
V5.2.9 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, Total Uncert,CRDL, or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	SDG:	J00927	Collection Date:	11/9/2010 3:00:00 PM
Lot-Sample No.:	J0K110435-3	Report No. :	45232	Received Date:	11/10/2010 9:30:00 AM
Client Sample ID:	J1B536	COC No. :	RC-175-001	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: 0326486	7196_CR6			Work Order: L9VX51AA			Report DB ID: 9L9VX510					
HEXCHROME	***4.35E+00***			0.0E+00	1.53E-01	mg/kg	N/A	*(28.5)*	11/22/10 10:40 a		2.5271	
							1.55E-01	*N/A*			g	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchSample
V5.2.9 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, Total Uncert,CRDL, or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	SDG:	J00927	Collection Date:	11/9/2010 3:15:00 PM
Lot-Sample No.:	J0K110435-4	Report No. :	45232	Received Date:	11/10/2010 9:30:00 AM
Client Sample ID:	J1B537	COC No. :	RC-175-001	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: 0326486	7196_CR6			Work Order: L9VX61AA			Report DB ID: 9L9VX610					
HEXCHROME	***4.03E+00***			0.0E+00	1.54E-01	mg/kg	N/A	*(26.2)*	11/22/10 10:40 a		2.5188	
							1.55E-01	*N/A*			g	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchSample
V5.2.9 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, Total Uncert,CRDL, or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	**SDG:**	J00927	**Collection Date:**	11/9/2010 3:05:00 PM
Lot-Sample No.:	J0K110435-5	**Report No. :**	45232	**Received Date:**	11/10/2010 9:30:00 AM
Client Sample ID:	J1B631	**COC No. :**	RC-175-001	**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: 0326486	7196_CR6			**Work Order:** L9VX71AA			**Report DB ID:** 9L9VX710					
HEXCHROME	***1.05E+00***			0.0E+00	1.52E-01	mg/kg	N/A	*(6.9)*	11/22/10 10:40 a		2.5519	
							1.55E-01	*N/A*			g	

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

TestAmerica
rptSTLRchSample
V5.2.9 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, Total Uncert,CRDL, or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 24-Nov-10

Lab Name:	TestAmerica	**SDG:**	J00927	**Collection Date:**	11/9/2010 3:00:00 PM
Lot-Sample No.:	J0K110435-6	**Report No. :**	45232	**Received Date:**	11/10/2010 9:30:00 AM
Client Sample ID:	J1B632	**COC No. :**	RC-175-001	**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: 0326486	7196_CR6			**Work Order:** L9VX81AA			**Report DB ID:** 9L9VX810					
HEXCHROME	***5.65E+00***			0.0E+00	1.52E-01	mg/kg	N/A	*(37.2)*	11/22/10 10:40 a		2.551	
							1.55E-01	*N/A*			g	

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

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

TestAmerica

FORM II

Date: 24-Nov-10

DUPLICATE RESULTS

Lab Name:	TestAmerica	SDG:	J00927	Collection Date:	11/9/2010 2:30:00 PM
Lot-Sample No.:	J0K110435-1	Report No. :	45232	Received Date:	11/10/2010 9:30:00 AM
Client Sample ID:	J1B534	COC No. :	RC-175-001	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: 0326486	7196_CR6			Work Order: L9VX31AD		Report DB ID: L9VX31AD			Orig Sa DB ID: 9L9VX310			
HEXCHROME	1.32E+01			0.0E+00	1.54E-01	mg/kg	N/A	(85.8)	11/22/10 10:40 a		2.5127	
	1.34E+01		RPD 1.5			3.50E-01		N/A			g	

No. of Results: 1 Comments:

TestAmerica RPD - Relative Percent Difference.

rptSTLRchDupV5.2 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
.9 A2002

TestAmerica

FORM II

BLANK RESULTS

Date: 24-Nov-10

Lab Name: TestAmerica

Matrix: SOIL

SDG: J00927

Report No. : 45232

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: 0326486	7196_CR6			Work Order:	MAFCW1AA		Report DB ID:	MAFCW1AA				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	11/22/10 10:40 a		2.5	
						1.55E-01		N/A			g	

No. of Results: 1 Comments:

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

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

TestAmerica

FORM II

LCS RESULTS

Date: 24-Nov-10

Lab Name: TestAmerica

Matrix: SOIL

SDG: J00927

Report No. : 45232

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: 0326486	7196_CR6			Work Order:	MAFCW1AC		Report DB ID:	MAFCW1AC					
HEXCHROME	1.89E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		95%	11/22/10 10:40 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
V5.2.9 A2002

TestAmerica

FORM II

MATRIX SPIKE RESULTS

Date: 24-Nov-10

Lab Name: TestAmerica **SDG:** J00927

Lot-Sample No.: J0K110435-1, J1B534 **Report No. :** 45232 **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: 0326486	Work Order: L9VX31AC			Report DB ID: L9VX31AC			Orig Sa DB ID: 9L9VX310					
HEXCHROME	6.66E+00			0.0E+00	1.54E-01	mg/kg	N/A	64.58%	1.03E+01	11/22/10 10:40 a	2.5078	7196_CR6
	1.34E+01										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.9 A2002

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 0326486

Lab Sample Numbers or SDG: J00927

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

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

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

Comments on any "No" response: The MS % recovery was not within QC limits (64.5747%) so a PDMS was performed which brought it up to 116.316%

Analyst: [signature] Date: 11/23/2010

Second-Level Review: [signature] Date: 11/29/10

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-17021
NCM Initiated By: Dawn Lucas
Date Opened: 11/23/2010
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J0K110435 (1,2,3,4,5,6), J0K220000 (486),
QC Batches: 0326486,

Nonconformance: Batch Result Out of Limits
Subcategory: MS/MSD result outside acceptance limits

Problem Description / Root Cause

Name	Date	Description
Dawn Lucas	11/23/2010	The MS % recovery was low (64.574%) so a PDMS was performed which brought it within the acceptable limits (116.316%).

Corrective Action

Name	Date	Corrective Action
Dawn Lucas	11/23/2010	N/A

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

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-175-001	Page 1 of 2

Collector: W. Saxsmith	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8G JEB C 11-10-10	Data Turnaround: 21 Days		
Project Designation: ARRA Remaining Sites Characterization Sampling - Soil In P	Sampling Location: 100-K-92		SAF No.: RC-175
Ice Chest No.: NA	Field Logbook No.: EL-1649	COA: S10K92A000	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

J0K110435

POSSIBLE SAMPLE HAZARDS/REMARKS

NONE JEB 11-9-10

Special Handling and/or Storage

Cool 4°C JEB 11-9-10

Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	aG	aG	aG	aG	aG	aG	aG	P		
No. of Container(s)	1	1	1	1	1	1	1	1		
Volume	125mL	125mL	125mL	60mL	60mL	60mL	60mL	500mL		
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	TPH-Diesel Range - WTPH-D +	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	See item (3) in Special Instructions.		Area
Sample No.	Matrix *	Sample Date	Sample Time								
J1B533	SOIL	11/9/10	1475	✓			✓				EB
J1B534	SOIL	11/9/10	1430	✓	✓	✓	✓		✓	✓	L9VX3 1 surf
J1B535	SOIL	11/9/10	1450	✓	✓	✓	✓		✓	✓	L9VX4 1 subSurf
J1B536	SOIL	11/9/10	1500	✓	✓	✓	✓		✓	✓	L9VX5 2 surf
J1B537	SOIL	11/9/10	1515	✓	✓	✓	✓		✓	✓	L9VX6 2 subSurf

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 1545	Received By/Stored In	Date/Time 1545
Chris Saxsmith	11/9/10	SEDeBrigne TRDeBrig	11/9/10
Relinquished By/Removed From	Date/Time 1630	Received By/Stored In	Date/Time 1630
TRDeBrigne TRDeBrig	11/9/10	J.E. Beuhl	11-9-10
Relinquished By/Removed From	Date/Time 0930	Received By/Stored In	Date/Time 0930
J.E. Beuhl WCH	11-10-10	Angela Lance ANSEL	11.10.10
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (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) {Mercury}
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}
(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Gross Alpha & Gross Beta

WCH
J0K110435 - DUE 12.01.10
J00927

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

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

REVIEWED BY JR DATE 11/10/10

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-175-001	Page 2 of 2

Collector: W. Sexsmith	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8C JEB 11-10-10	Data Turnaround: 21 Days		
Project Designation: ARRA Remaining Sites Characterization Sampling - Soil In P	Sampling Location: 100-K-92		SAF No.: RC-175
Ice Chest No.: NA	Field Logbook No.: EL-1649	COA: S10K92A000	Method of Shipment: Hand Deliver
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

J0K110435

POSSIBLE SAMPLE HAZARDS/REMARKS

NONE JEB 11-9-10

Special Handling and/or Storage

Cool 4°C JEB 11-9-10

Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	aG	aG	aG	aG	aG	aG	aG	P		
No. of Container(s)	1	1	~~500~~ 1	1	1	1	1	1		
Volume	125mL	125mL	125mL	60mL	60mL	60mL	60mL	500mL		
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	TPH-Diesel Range - WTPH-D +	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	See item (3) in Special Instructions.		Area
Sample No.	Matrix *	Sample Date	Sample Time								
J1B631	SOIL	11/9/10	1505	✓	✓	✓	✓		✓	✓	L9VX1	2 underdrum
J1B632	SOIL	11/9/10	1500	✓	✓	✓	✓		✓	✓	L9VX8	D

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Christopher Sexsmith	1545 11/9/10	J.D. DeBuigne	1545 11/9/10
J.D. DeBuigne	1630 11/9/10	J.E. Benbul	1630 11-9-10
J.E. Benbul	0930 11-10-10	TMR / Angela Ansel	0930 11.10.10

SPECIAL INSTRUCTIONS

(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) {Mercury}
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}
(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Gross Alpha & Gross Beta

J0K110435 · DUE 12-01-10
JDB100927 -WCH-

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

REVIEWED BY VR DATE 11/10/10

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 11.10.10@930 GM Screen Result (out) .3 (in) .5 Initials [✓]

Client: WCH SDG #: J00927 NA [ ] SAF #: RC-175 NA [ ]

Work Order Number: JOK110435 Chain of Custody # RC-175-001

Shipping Container ID: Hand Delivery NA [✓] Air Bill # _____ NA [✓]

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

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

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 6
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   ___ tape
   ✓ custody seals
   ✓ hazard labels
   ✓ appropriate sample labels
9. Samples:
   ✓ are in good condition
   ___ are broken
   (soil 14ex7198)
   ___ are leaking
   ___ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [✓] (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 [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓]

See other side for additional comments

Sample Custodian: [signature] Date: 11.10.10@930 TAN

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 11/11/10

23/2010 10:05:35 AM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

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

AnalyDueDate: 12/01/2010

Batch: 0326486 SOIL mg/kg PM, Quote: SS , 27038

SQ Batch, Test: None All Tests: 0326486 DWEA,

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 L9VX3-1-AA J0K110435-1-SAMP 11/09/2010 14:30		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
2 L9VX3-1-AC-S J0K110435-1-MS 11/09/2010 14:30		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
3 L9VX3-1-AD-X J0K110435-1-DUP 11/09/2010 14:30		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
4 L9VX4-1-AA J0K110435-2-SAMP 11/09/2010 14:50		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
5 L9VX5-1-AA J0K110435-3-SAMP 11/09/2010 15:00		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
6 L9VX6-1-AA J0K110435-4-SAMP 11/09/2010 15:15		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:
7 L9VX7-1-AA J0K110435-5-SAMP 11/09/2010 15:05		AmtRec: 1XJAR125MLG		#Containers: 1				Scr:	Alpha:	Beta:

2010 10:05:35 AM

Sample Preparation/Analysis

Balance Id:

642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

Pipet #:

AnalyDueDate: 12/01/2010

Sep1 DT/Tm Tech:

Batch: 0326486 SOIL mg/kg PM, Quote: SS , 27038

Sep2 DT/Tm Tech:

SQ Batch, Test: None

Prep Tech:

TestAmerica

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L9VX8-1-AA J0K110435-6-SAMP 11/09/2010 15:00		AmtRec: 1XJAR125MLG	#Containers: 1					Scr:	Alpha:	Beta:
9 MAFCW-1-AA-B J0K220000-486-BLK 11/23/2010 10:05 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
10 MAFCW-1-AC-C J0K220000-486-LCS 11/23/2010 10:05 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

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

L9VX31AA-SAMP Constituent List:
HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20
L9VX31AC-MS Constituent List:
HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20
MAFCW1AA-BLK:
HEXCHROME RDL:0.1548 mg/kg LCL: UCL: RPD:
MAFCW1AC-LCS:
HEXCHROME RDL:0.35 mg/kg LCL:80 UCL:120 RPD:20

L9VX31AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
L9VX31AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MAFCW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-9733-1

SDG Number: J00927

Job Description: SAF# RC-175

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

Attention: Joan H Kessner

RECEIVED NOV 2010

Approved for release.
Kae E Yoder
Project Manager II
11/29/2010 1:22 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
11/29/2010

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: 280-9733-1

SDG #: J00927
SAF#: RC-175

Date SDG Closed: November 12, 2010
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1B533	280-9733-1	6010/7471/WTPH-D+	6010B/7471A/NWTPH-D+
J1B534	280-9733-2	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082
J1B535	280-9733-3	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082
J1B536	280-9733-4	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082
J1B537	280-9733-5	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082
J1B631	280-9733-6	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082
J1B632	280-9733-7	6010/7471/1311-6010-7470/ WTPH-D+/8270A/8082	6010B/7471A/1311-6010B-7470A/ NWTPH-D+/8270C/8082

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

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

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

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

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

RECEIPT

The samples were received on 11/12/2010; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.6 C, 1.8 C and 2.0 C.

As instructed by the client during a telephone conversation on 11/12/2010, the data turnaround time was changed from 21 days to 15 days.

GC/MS SEMIVOLATILES - SW846 8270C

Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in several samples 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".

Low levels of Diethyl phthalate, a common laboratory contaminant, are present in the method blank associated with batch 280-41015. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

Surrogate Terphenyl-d14 was recovered outside the control limits in the MSD aliquot of the MS/MSD performed on sample J1B534. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs

The laboratory noted that samples J1B536, J1B537, J1B631 and J1B632 contained more than one Aroclor component. Results are estimated due to shared peaks. Peaks that appeared to be co-eluting were dropped.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, samples J1B536, J1B631 and J1B632 had to be analyzed at dilutions, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilutions required.

Surrogate recoveries were not calculated for samples J1B536, J1B631 and J1B632, because the extracts were diluted beyond the ability to reliably quantitate recoveries. Recoveries have been flagged with a "D".

The RPD between the primary and confirmation columns exceeded 25% for Aroclor 1254 in samples J1B536 and J1B632. The results have been flagged with a "P".

Surrogate Decachlorobiphenyl was recovered outside the control limits, biased high, in sample J1B537. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1B534 exhibited percent recoveries outside the control limits for Aroclor 1260, and the associated sample result has been flagged "N". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, sample J1B534 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.

The surrogate recovery was not calculated for sample J1B534, because the extract was diluted beyond the ability to reliably quantitate a recovery. The recovery has been flagged with a "D".

Surrogate o-Terphenyl was recovered outside the control limits, biased high, in sample J1B536. The laboratory noted that this anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

Surrogate o-Terphenyl was recovered outside the control limits in the MS/MSD performed on sample J1B632. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-41041 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "L".

Low levels of Aluminum, Barium, Calcium, Magnesium, Manganese, Zinc and Silicon are present in the method blanks associated with batches 280-41041 and 280-42260, respectively. Because the concentrations in the method blanks are not present at levels greater than the reporting limits, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "J".

The SW846 6010B Matrix Spike performed on sample J1B535 exhibited percent recoveries outside the control limits for Vanadium and Zinc, 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.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1B535; therefore, control limits are not applicable.

The SW846 6010B duplicate analysis of sample J1B535 exhibited RPD data outside the control limits for Arsenic, Cadmium, Chromium, Magnesium and Nickel, and the associated sample results have been flagged "M". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

The Mercury duplicate analysis of sample J1B632 exhibited RPD data outside the control limits, 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.

TCLP METALS - SW846 1311/6010B/7470A

Serial dilution of a digestate in batch 280-41043 indicates that physical and chemical interferences are present for Barium. Results have been flagged with an "L".

Low levels of Barium, Selenium and Mercury are present in the method blanks associated with batches 280-41043 and 280-41828, respectively. Because the concentrations in the method blanks are not present at levels greater than the reporting limits, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "J".

Lead was recovered outside the control limits in the SW846 6010B Matrix Spike performed on sample J1B535, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

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.
	*	Surrogate exceeds the control limit
GC Semi VOA		
	U	Analyzed for but not detected.
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	*	Surrogate exceeds the control limit
	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

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	J	Method blank contamination. The assoicated method blank contains the target analyte at a reportable level.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
	L	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Metals	TAL DEN		SW846 3050B
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
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8082	Pavlakovich, Adam M	AMP
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Bowen, Heidi E	HEB
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Stoltz, Katie	KS
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-9733-1	J1B533	Solid	11/09/2010 1425	11/12/2010 0900
280-9733-2	J1B534	Solid	11/09/2010 1430	11/12/2010 0900
280-9733-3	J1B535	Solid	11/09/2010 1450	11/12/2010 0900
280-9733-4	J1B536	Solid	11/09/2010 1500	11/12/2010 0900
280-9733-5	J1B537	Solid	11/09/2010 1515	11/12/2010 0900
280-9733-6	J1B631	Solid	11/09/2010 1505	11/12/2010 0900
280-9733-7	J1B632	Solid	11/09/2010 1500	11/12/2010 0900

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1949.D
Dilution:	1.0			Initial Weight/Volume:	30.0 g
Date Analyzed:	11/17/2010 1327			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		18	U	18	340
Anthracene		18	U	18	340
Benzo[a]anthracene		21	U	21	340
Benzo[a]pyrene		21	U	21	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		17	U	17	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		24	U	24	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		24	U	24	340
Bis(2-ethylhexyl) phthalate		48	U	48	340
4-Bromophenyl phenyl ether		20	U	20	340
Butyl benzyl phthalate		45	U	45	340
Carbazole		37	U	37	340
4-Chloroaniline		85	U	85	340
4-Chloro-3-methylphenol		68	U	68	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		22	U	22	340
4-Chlorophenyl phenyl ether		22	U	22	340
Chrysene		56	J	28	340
Dibenz(a,h)anthracene		20	U	20	340
Dibenzofuran		21	U	21	340
1,2-Dichlorobenzene		23	U	23	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		93	U	93	680
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		68	U	68	340
Dimethyl phthalate		24	U	24	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	680
2,4-Dinitrophenol		340	U	340	850
2,4-Dinitrotoluene		68	U	68	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		19	U	19	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		52	U	52	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		23	U	23	340
Isophorone		18	U	18	340
2-Methylnaphthalene		20	U	20	340

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1949.D
Dilution:	1.0			Initial Weight/Volume:	30.0 g
Date Analyzed:	11/17/2010 1327			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		52	U	52	340
3-Nitroaniline		76	U	76	340
4-Nitroaniline		75	U	75	340
Nitrobenzene		23	U	23	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		100	U	100	680
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		22	U	22	340
Pentachlorophenol		340	U	340	680
Phenanthrene		18	U	18	340
Phenol		19	U	19	340
Pyrene		13	U	13	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		50 - 120
2-Fluorophenol	82		53 - 120
Nitrobenzene-d5	80		50 - 120
Phenol-d5	85		52 - 120
Terphenyl-d14	90		55 - 120
2,4,6-Tribromophenol	87		51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid % Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1949.D
Dilution:	1.0			Initial Weight/Volume:	30.0 g
Date Analyzed:	11/17/2010 1327			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.79	180	N J
	Unknown	3.04	200	N J
	Unknown	3.46	3500	N J
928-68-7	2-Heptanone, 6-methyl-	4.44	420	N J
	Unknown	4.55	160	N J
	Unknown	4.72	220	N J
	Unknown	5.12	240	N J
	Unknown	5.58	150	N J
	Unknown	5.75	190	N J
	Unknown	5.94	250	N J
	Unknown	6.06	290	N J
	Unknown	6.60	180	N J
	Unknown	6.92	200	N J
85-44-9	Phthalic anhydride	7.05	630	N J
	Unknown	7.39	350	N J
	Unknown	7.43	290	N J
	Unknown	7.60	180	N J
	Unknown	7.66	300	N J
	Unknown	7.74	160	N J
	Unknown	8.48	180	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1952.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Date Analyzed:	11/17/2010 1429			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		17	U	17	340
Anthracene		17	U	17	340
Benzo[a]anthracene		20	U	20	340
Benzo[a]pyrene		20	U	20	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		16	U	16	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		24	U	24	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		24	U	24	340
Bis(2-ethylhexyl) phthalate		47	U	47	340
4-Bromophenyl phenyl ether		19	U	19	340
Butyl benzyl phthalate		44	U	44	340
Carbazole		37	U	37	340
4-Chloroaniline		84	U	84	340
4-Chloro-3-methylphenol		68	U	68	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		21	U	21	340
4-Chlorophenyl phenyl ether		21	U	21	340
Chrysene		28	U	28	340
Dibenz(a,h)anthracene		19	U	19	340
Dibenzofuran		20	U	20	340
1,2-Dichlorobenzene		23	U	23	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		92	U	92	680
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		68	U	68	340
Dimethyl phthalate		24	U	24	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	680
2,4-Dinitrophenol		340	U	340	840
2,4-Dinitrotoluene		68	U	68	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		18	U	18	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		51	U	51	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		23	U	23	340
Isophorone		17	U	17	340
2-Methylnaphthalene		19	U	19	340

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1952.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Date Analyzed:	11/17/2010 1429			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		51	U	51	340
3-Nitroaniline		75	U	75	340
4-Nitroaniline		74	U	74	340
Nitrobenzene		23	U	23	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		99	U	99	680
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		21	U	21	340
Pentachlorophenol		340	U	340	680
Phenanthrene		17	U	17	340
Phenol		18	U	18	340
Pyrene		12	U	12	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	78		50 - 120
2-Fluorophenol	75		53 - 120
Nitrobenzene-d5	74		50 - 120
Phenol-d5	79		52 - 120
Terphenyl-d14	84		55 - 120
2,4,6-Tribromophenol	80		51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1952.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Date Analyzed:	11/17/2010 1429			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.73	1600	N J
141-79-7	3-Penten-2-one, 4-methyl-	3.05	220	N J
	Unknown	3.47	4500	N J
	Unknown	11.92	330	N J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	12.04	1500	N J
	Unknown	12.27	2000	N J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	12.29	2400	N J
	Unknown	12.59	3400	N J
	Unknown	13.03	13000	N J
	Unknown	13.35	870	N J
	Unknown	13.42	520	N J
55724-23-7	Ergost-5-en-3-ol, 22,23-dimethyl-, (3.be	13.46	770	N J
	Unknown	13.49	820	N J
	Unknown	13.51	1600	N J
	Unknown	13.63	1200	N J
	Unknown	13.66	1900	N J
	Unknown	13.89	8900	N J
	Unknown	14.38	910	N J
	Unknown	14.70	8500	N J
	Unknown	14.94	2300	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1953.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Date Analyzed:	11/17/2010 1449			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	320
Acenaphthylene		17	U	17	320
Anthracene		17	U	17	320
Benzo[a]anthracene		60	J	20	320
Benzo[a]pyrene		58	J	20	320
Benzo[b]fluoranthene		110	J K	26	320
Benzo[ghi]perylene		52	J	16	320
Benzo[k]fluoranthene		39	U K	39	320
Bis(2-chloroethoxy)methane		23	U	23	320
Bis(2-chloroethyl)ether		16	U	16	320
bis (2-chloroisopropyl) ether		23	U	23	320
Bis(2-ethylhexyl) phthalate		99	J	45	320
4-Bromophenyl phenyl ether		19	U	19	320
Butyl benzyl phthalate		42	U	42	320
Carbazole		35	U	35	320
4-Chloroaniline		81	U	81	320
4-Chloro-3-methylphenol		65	U	65	320
2-Chloronaphthalene		9.8	U	9.8	320
2-Chlorophenol		21	U	21	320
4-Chlorophenyl phenyl ether		21	U	21	320
Chrysene		470		27	320
Dibenz(a,h)anthracene		19	U	19	320
Dibenzofuran		20	U	20	320
1,2-Dichlorobenzene		22	U	22	320
1,3-Dichlorobenzene		12	U	12	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		89	U	89	650
2,4-Dichlorophenol		9.8	U	9.8	320
Diethyl phthalate		26	U	26	320
2,4-Dimethylphenol		65	U	65	320
Dimethyl phthalate		23	U	23	320
Di-n-butyl phthalate		60	J	29	320
4,6-Dinitro-2-methylphenol		320	U	320	650
2,4-Dinitrophenol		330	U	330	810
2,4-Dinitrotoluene		65	U	65	320
2,6-Dinitrotoluene		28	U	28	320
Di-n-octyl phthalate		14	U	14	320
Fluoranthene		120	J	35	320
Fluorene		18	U	18	320
Hexachlorobenzene		29	U	29	320
Hexachlorobutadiene		9.8	U	9.8	320
Hexachlorocyclopentadiene		49	U	49	320
Hexachloroethane		21	U	21	320
Indeno[1,2,3-cd]pyrene		42	J	22	320
Isophorone		17	U	17	320
2-Methylnaphthalene		19	U	19	320

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1953.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Date Analyzed:	11/17/2010 1449			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	320
3 & 4 Methylphenol		32	U	32	320
Naphthalene		31	U	31	320
2-Nitroaniline		49	U	49	320
3-Nitroaniline		72	U	72	320
4-Nitroaniline		71	U	71	320
Nitrobenzene		22	U	22	320
2-Nitrophenol		9.8	U	9.8	320
4-Nitrophenol		96	U	96	650
N-Nitrosodi-n-propylamine		31	U	31	320
N-Nitrosodiphenylamine		21	U	21	320
Pentachlorophenol		320	U	320	650
Phenanthrene		77	J	17	320
Phenol		35	J	18	320
Pyrene		110	J	12	320
1,2,4-Trichlorobenzene		28	U	28	320
2,4,5-Trichlorophenol		9.8	U	9.8	320
2,4,6-Trichlorophenol		9.8	U	9.8	320

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	72		50 - 120
2-Fluorophenol	73		53 - 120
Nitrobenzene-d5	69		50 - 120
Phenol-d5	75		52 - 120
Terphenyl-d14	88		55 - 120
2,4,6-Tribromophenol	77		51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1953.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Date Analyzed:	11/17/2010 1449			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **12**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.73	1300	N J
141-79-7	3-Penten-2-one, 4-methyl-	3.05	190	N J
	Unknown	3.47	4300	N J
85-44-9	Phthalic anhydride	7.06	510	N J
544-76-3	Hexadecane	8.30	33	J N
84-15-1	o-Terphenyl	9.53	220	N J
	Unknown	10.13	160	N J
92-94-4	p-Terphenyl	10.37	1100	N J
26140-60-3	Terphenyl	10.50	680	N J
7396-38-5	Phenanthrene, 2,4,5,7-tetramethyl-	10.60	250	N J
	Unknown	11.50	540	N J
1166-18-3	1,1":3",1'":3'",1'''''-Quaterphenyl	12.77	500	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid % Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1954.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Date Analyzed:	11/17/2010 1509			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	310
Acenaphthylene		16	U	16	310
Anthracene		16	U	16	310
Benzo[a]anthracene		32	J	19	310
Benzo[a]pyrene		23	J	19	310
Benzo[b]fluoranthene		52	J K	24	310
Benzo[ghi]perylene		24	J	15	310
Benzo[k]fluoranthene		37	U K	37	310
Bis(2-chloroethoxy)methane		22	U	22	310
Bis(2-chloroethyl)ether		16	U	16	310
bis (2-chloroisopropyl) ether		22	U	22	310
Bis(2-ethylhexyl) phthalate		48	J	43	310
4-Bromophenyl phenyl ether		18	U	18	310
Butyl benzyl phthalate		40	U	40	310
Carbazole		34	U	34	310
4-Chloroaniline		77	U	77	310
4-Chloro-3-methylphenol		62	U	62	310
2-Chloronaphthalene		9.3	U	9.3	310
2-Chlorophenol		20	U	20	310
4-Chlorophenyl phenyl ether		20	U	20	310
Chrysene		210	J	25	310
Dibenz(a,h)anthracene		18	U	18	310
Dibenzofuran		19	U	19	310
1,2-Dichlorobenzene		21	U	21	310
1,3-Dichlorobenzene		11	U	11	310
1,4-Dichlorobenzene		13	U	13	310
3,3'-Dichlorobenzidine		84	U	84	620
2,4-Dichlorophenol		9.3	U	9.3	310
Diethyl phthalate		24	U	24	310
2,4-Dimethylphenol		62	U	62	310
Dimethyl phthalate		22	U	22	310
Di-n-butyl phthalate		34	J	27	310
4,6-Dinitro-2-methylphenol		310	U	310	620
2,4-Dinitrophenol		310	U	310	770
2,4-Dinitrotoluene		62	U	62	310
2,6-Dinitrotoluene		26	U	26	310
Di-n-octyl phthalate		13	U	13	310
Fluoranthene		57	J	34	310
Fluorene		17	U	17	310
Hexachlorobenzene		27	U	27	310
Hexachlorobutadiene		9.3	U	9.3	310
Hexachlorocyclopentadiene		47	U	47	310
Hexachloroethane		20	U	20	310
Indeno[1,2,3-cd]pyrene		21	U	21	310
Isophorone		16	U	16	310
2-Methylnaphthalene		18	U	18	310

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid
% Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1954.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Date Analyzed:	11/17/2010 1509			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		12	U	12	310
3 & 4 Methylphenol		31	U	31	310
Naphthalene		29	U	29	310
2-Nitroaniline		47	U	47	310
3-Nitroaniline		68	U	68	310
4-Nitroaniline		68	U	68	310
Nitrobenzene		21	U	21	310
2-Nitrophenol		11	J	9.3	310
4-Nitrophenol		91	U	91	620
N-Nitrosodi-n-propylamine		29	U	29	310
N-Nitrosodiphenylamine		20	U	20	310
Pentachlorophenol		310	U	310	620
Phenanthrene		33	J	16	310
Phenol		24	J	17	310
Pyrene		44	J	11	310
1,2,4-Trichlorobenzene		26	U	26	310
2,4,5-Trichlorophenol		9.3	U	9.3	310
2,4,6-Trichlorophenol		9.3	U	9.3	310

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		50 - 120
2-Fluorophenol	83		53 - 120
Nitrobenzene-d5	78		50 - 120
Phenol-d5	82		52 - 120
Terphenyl-d14	99		55 - 120
2,4,6-Tribromophenol	86		51 - 120

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid
% Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1954.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Date Analyzed:	11/17/2010 1509			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.73	1400	N J
141-79-7	3-Penten-2-one, 4-methyl-	3.05	170	N J
	Unknown	3.47	4500	N J
85-44-9	Phthalic anhydride	7.06	130	N J
544-76-3	Hexadecane	8.30	14	J N
92-94-4	p-Terphenyl	10.37	2200	N J
26140-60-3	Terphenyl	10.50	1600	N J
	Unknown	11.50	170	N J
612-71-5	1,1":3",1""-Terphenyl, 5"-phenyl-	12.77	420	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1955.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Date Analyzed:	11/17/2010 1530			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		32	J	20	330
Benzo[a]pyrene		49	J	20	330
Benzo[b]fluoranthene		83	J K	26	330
Benzo[ghi]perylene		59	J	16	330
Benzo[k]fluoranthene		40	U K	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		50	J	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		82	U	82	330
4-Chloro-3-methylphenol		66	U	66	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		160	J	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		90	U	90	660
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		66	U	66	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		33	J	29	330
4,6-Dinitro-2-methylphenol		330	U	330	660
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		66	U	66	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		42	J	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		47	J	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1955.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Date Analyzed:	11/17/2010 1530			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		73	U	73	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		97	U	97	660
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	660
Phenanthrene		26	J	17	330
Phenol		18	U	18	330
Pyrene		43	J	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	78		50 - 120
2-Fluorophenol	82		53 - 120
Nitrobenzene-d5	79		50 - 120
Phenol-d5	81		52 - 120
Terphenyl-d14	96		55 - 120
2,4,6-Tribromophenol	84		51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1955.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Date Analyzed:	11/17/2010 1530			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 6

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.74	1700	N J
141-79-7	3-Penten-2-one, 4-methyl-	3.05	220	N J
	Unknown	3.47	4700	N J
85-44-9	Phthalic anhydride	7.06	270	N J
544-76-3	Hexadecane	8.30	17	J N
92-94-4	p-Terphenyl	10.37	350	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1956.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Date Analyzed:	11/17/2010 1550			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	340
Acenaphthylene		52	J	17	340
Anthracene		55	J	17	340
Benzo[a]anthracene		20	U	20	340
Benzo[a]pyrene		400		20	340
Benzo[b]fluoranthene		590	K	27	340
Benzo[ghi]perylene		530		16	340
Benzo[k]fluoranthene		41	U K	41	340
Bis(2-chloroethoxy)methane		23	U	23	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		23	U	23	340
Bis(2-ethylhexyl) phthalate		68	J	47	340
4-Bromophenyl phenyl ether		19	U	19	340
Butyl benzyl phthalate		44	U	44	340
Carbazole		37	U	37	340
4-Chloroaniline		83	U	83	340
4-Chloro-3-methylphenol		67	U	67	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		21	U	21	340
4-Chlorophenyl phenyl ether		21	U	21	340
Chrysene		610		27	340
Dibenz(a,h)anthracene		210	J	19	340
Dibenzofuran		20	U	20	340
1,2-Dichlorobenzene		22	U	22	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		92	U	92	670
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		26	U	26	340
2,4-Dimethylphenol		67	U	67	340
Dimethyl phthalate		23	U	23	340
Di-n-butyl phthalate		110	J	29	340
4,6-Dinitro-2-methylphenol		340	U	340	670
2,4-Dinitrophenol		340	U	340	840
2,4-Dinitrotoluene		67	U	67	340
2,6-Dinitrotoluene		28	U	28	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		18	U	18	340
Hexachlorobenzene		29	U	29	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		51	U	51	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		460		22	340
Isophorone		17	U	17	340
2-Methylnaphthalene		19	U	19	340

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1956.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Date Analyzed:	11/17/2010 1550			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		51	U	51	340
3-Nitroaniline		74	U	74	340
4-Nitroaniline		74	U	74	340
Nitrobenzene		22	U	22	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		99	U	99	670
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		21	U	21	340
Pentachlorophenol		340	U	340	670
Phenanthrene		28	J	17	340
Phenol		30	J	18	340
Pyrene		39	J	12	340
1,2,4-Trichlorobenzene		28	U	28	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		50 - 120
2-Fluorophenol	73		53 - 120
Nitrobenzene-d5	71		50 - 120
Phenol-d5	76		52 - 120
Terphenyl-d14	92		55 - 120
2,4,6-Tribromophenol	81		51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 280-41546		Instrument ID:	MSS_B
Preparation:	3550C	Prep Batch: 280-41015		Lab File ID:	B1956.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Date Analyzed:	11/17/2010 1550			Final Weight/Volume:	1000 uL
Date Prepared:	11/15/2010 1945			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **13**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	3.05	180	N J
	Unknown	3.47	4300	N J
85-44-9	Phthalic anhydride	7.06	470	N J
544-76-3	Hexadecane	8.30	33	J N
	Unknown	10.26	160	N J
92-94-4	p-Terphenyl	10.49	1900	N J
	Unknown	11.11	150	N J
	Unknown	11.49	320	N J
1165-58-8	1,1":2",1"":4"",1"""-Quaterphenyl	11.59	310	N J
	Unknown	12.44	340	N J
192-97-2	Benzo[e]pyrene	12.59	700	N J
1166-18-3	1,1":3",1"":3"",1"""-Quaterphenyl	12.76	770	N J
612-71-5	1,1":3",1""-Terphenyl, 5"-phenyl-	13.07	650	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid % Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	11/18/2010 0445			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	66		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	11/19/2010 0701			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	11
Aroclor 1221		8.5	U	8.5	17
Aroclor 1232		2.1	U	2.1	11
Aroclor 1242		4.9	U	4.9	11
Aroclor 1248		4.9	U	4.9	11
Aroclor 1254		2.7	U	2.7	11
Aroclor 1260		2.7	U	2.7	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	65		59 - 130
Tetrachloro-m-xylene	88		53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	31.6 g
Dilution:	10			Final Weight/Volume:	5000 uL
Date Analyzed:	11/19/2010 0908			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		27	U D	27	99
Aroclor 1221		79	U D	79	160
Aroclor 1232		20	U D	20	99
Aroclor 1242		46	U D	46	99
Aroclor 1248		46	U D	46	99
Aroclor 1254		630	P D	26	99
Aroclor 1260		750	D	26	99

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid
% Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Date Analyzed:	11/18/2010 0724			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		45		2.6	10
Aroclor 1260		81		2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	4049	*	59 - 130
Tetrachloro-m-xylene	80		53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	31.2 g
Dilution:	20			Final Weight/Volume:	5000 uL
Date Analyzed:	11/19/2010 0940			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		55	U D	55	200
Aroclor 1221		160	U D	160	330
Aroclor 1232		40	U D	40	200
Aroclor 1242		92	U D	92	200
Aroclor 1248		92	U D	92	200
Aroclor 1254		490	D	51	200
Aroclor 1260		1200	D	51	200

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 280-42433		Instrument ID:	GCS_W
Preparation:	3550C	Prep Batch: 280-40825		Initial Weight/Volume:	32.3 g
Dilution:	10			Final Weight/Volume:	5000 uL
Date Analyzed:	11/19/2010 1012			Injection Volume:	1 uL
Date Prepared:	11/14/2010 0924			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		27	U D	27	96
Aroclor 1221		77	U D	77	160
Aroclor 1232		19	U D	19	96
Aroclor 1242		45	U D	45	96
Aroclor 1248		45	U D	45	96
Aroclor 1254		620	P D	25	96
Aroclor 1260		730	D	25	96

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	0	D	59 - 130
Tetrachloro-m-xylene	0	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B533**

Lab Sample ID: 280-9733-1
Client Matrix: Solid
% Moisture: 0.2

Date Sampled: 11/09/2010 1425
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	007B0701.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Date Analyzed:	11/16/2010 1945			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		5200		970	3900
C10-C28		4900		660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	78		49 - 115

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41960		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	074B7401.D
Dilution:	5.0			Initial Weight/Volume:	30.5 g
Date Analyzed:	11/19/2010 0228			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		2500000	D	5100	20000
C10-C28		1600000	D	3500	20000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	D	49 - 115

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	009B0901.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Date Analyzed:	11/16/2010 2041			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		410000		1000	4000
C10-C28		260000		680	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	90		49 - 115

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	010B1001.D
Dilution:	1.0			Initial Weight/Volume:	30.4 g
Date Analyzed:	11/16/2010 2110			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		110000		1000	4100
C10-C28		76000		700	4100

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	142	*	49 - 115

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid
% Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	011B1101.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Date Analyzed:	11/16/2010 2138			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		33000		980	3900
C10-C28		22000		670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	81		49 - 115

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	012B1201.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Date Analyzed:	11/16/2010 2206			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		67000		970	3900
C10-C28		41000		660	3900

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

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

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

Method:	NWTPH-Dx	Analysis Batch: 280-41950		Instrument ID:	GCS_U
Preparation:	3550C	Prep Batch: 280-41018		Lab File ID:	013B1301.D
Dilution:	1.0			Initial Weight/Volume:	30.4 g
Date Analyzed:	11/16/2010 2234			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		97000		1000	4100
C10-C28		64000		690	4100

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

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B533**

Lab Sample ID: 280-9733-1
Client Matrix: Solid
% Moisture: 0.2

Date Sampled: 11/09/2010 1425
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Date Analyzed:	11/19/2010 1803			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		257	J L	1.3	4.2
Antimony		0.49	B	0.32	0.51
Arsenic		0.56	U	0.56	0.84
Barium		3.6	J L	0.064	0.42
Beryllium		0.057	B	0.028	0.17
Boron		0.83	U	0.83	1.7
Cadmium		0.035	U	0.035	0.17
Calcium		78.4	L J C	11.9	42.1
Chromium		0.049	U	0.049	0.17
Cobalt		0.15	B L	0.084	0.84
Copper		0.34	B L	0.18	0.84
Iron		449		3.2	4.2
Lead		0.42		0.23	0.42
Magnesium		42.2	J L	3.1	16.8
Manganese		7.0	J L	0.084	0.84
Molybdenum		0.27	B	0.22	1.7
Nickel		0.12	B L	0.10	3.4
Potassium		61.7	B	34.5	253
Selenium		0.87		0.72	0.84
Silver		0.13	U	0.13	0.17
Sodium		49.7	U	49.7	101
Vanadium		0.56	B L	0.079	1.7
Zinc		1.8	L J C	0.34	0.84

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Date Analyzed:	11/23/2010 2203			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		104	J	1.9	8.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892		Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984		Lab File ID:	101118AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/18/2010 1532			Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0054	U	0.0054	0.016

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid
% Moisture: 3.4

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Date Analyzed:	11/19/2010 1805			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9120	J L	1.4	4.5
Antimony		0.35	U	0.35	0.54
Arsenic		2.2		0.60	0.91
Barium		72.6	J L	0.069	0.45
Beryllium		0.27		0.030	0.18
Boron		1.3	B	0.89	1.8
Cadmium		0.10	B	0.037	0.18
Calcium		3310	J L	12.8	45.4
Chromium		10.1		0.053	0.18
Cobalt		7.2	L	0.091	0.91
Copper		12.5	L	0.20	0.91
Iron		20900		3.5	4.5
Lead		4.8		0.25	0.45
Magnesium		3350	J L	3.4	18.2
Manganese		319	J L	0.091	0.91
Molybdenum		0.24	U	0.24	1.8
Nickel		8.8	L	0.11	3.6
Potassium		1750		37.2	272
Selenium		0.78	U	0.78	0.91
Silver		0.15	U	0.15	0.18
Sodium		203		53.6	109
Vanadium		51.0	L	0.085	1.8
Zinc		81.8	J L	0.36	0.91

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/23/2010 2205			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		172	J	2.1	10

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2024			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.22	B J L	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.0030	B	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

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1556		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000046	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.62 g
Date Analyzed:	11/18/2010 1534		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

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

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.12 g
Date Analyzed:	11/19/2010 1808			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8270	J L	1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		1.7	M	0.63	0.95
Barium		95.9	J L	0.072	0.48
Beryllium		0.24		0.031	0.19
Boron		1.1	B	0.93	1.9
Cadmium		0.13	B M	0.039	0.19
Calcium		3050	J L	13.4	47.5
Chromium		7.9	M	0.055	0.19
Cobalt		6.4	L	0.095	0.95
Copper		12.1	L	0.21	0.95
Iron		16900		3.6	4.8
Lead		3.9		0.26	0.48
Magnesium		2700	J L M	3.5	19.0
Manganese		294	J L	0.095	0.95
Molybdenum		0.25	U	0.25	1.9
Nickel		7.6	L M	0.12	3.8
Potassium		1930		39.0	285
Selenium		0.82	U	0.82	0.95
Silver		0.15	U	0.15	0.19
Sodium		146		56.1	114
Vanadium		42.3	L N	0.089	1.9
Zinc		38.4	J L N	0.38	0.95

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Date Analyzed:	11/23/2010 2208			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		173	J	1.9	9.3

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2026			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.18	B J L	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.0030	U	0.0030	0.50
Lead		0.013	U N	0.013	0.50
Selenium		0.038	B J C	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1558		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000051	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.61 g
Date Analyzed:	11/18/2010 1537		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

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

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid
% Moisture: 3.9

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/19/2010 1826			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		1650	J L	1.6	5.2
Antimony		81.6		0.39	0.62
Arsenic		20.7		0.68	1.0
Barium		116	J L	0.078	0.52
Beryllium		0.10	B	0.034	0.21
Boron		6.1		1.0	2.1
Cadmium		5.3		0.042	0.21
Calcium		4580	J L	14.5	51.5
Chromium		151		0.060	0.21
Cobalt		10.9	L	0.10	1.0
Copper		329	L	0.22	1.0
Iron		75500		3.9	5.2
Lead		361		0.28	0.52
Magnesium		1550	J L	3.8	20.6
Manganese		951	J L	0.10	1.0
Molybdenum		193		0.27	2.1
Nickel		103	L	0.13	4.1
Potassium		361		42.2	309
Selenium		0.89	U	0.89	1.0
Silver		0.96		0.16	0.21
Sodium		1100		60.8	124
Vanadium		78.6	L	0.097	2.1
Zinc		1000	J L	0.41	1.0

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/23/2010 2226			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		112	J	2.1	10.2

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2029			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.98	B J L	0.0020	1.0
Cadmium		0.087	B	0.0020	0.10
Chromium		0.033	B	0.0030	0.50
Lead		1.5		0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1601		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000055	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.64 g
Date Analyzed:	11/18/2010 1539		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.38		0.0054	0.017

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid
% Moisture: 2.5

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Date Analyzed:	11/19/2010 1828			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6510	J L	1.3	4.3
Antimony		9.1		0.33	0.52
Arsenic		2.3		0.57	0.86
Barium		65.2	J L	0.065	0.43
Beryllium		0.21		0.028	0.17
Boron		3.4		0.84	1.7
Cadmium		1.5		0.035	0.17
Calcium		3580	J L	12.1	43.1
Chromium		30.6		0.050	0.17
Cobalt		5.8	L	0.086	0.86
Copper		287	L	0.19	0.86
Iron		19200		3.3	4.3
Lead		108		0.23	0.43
Magnesium		2760	J L	3.2	17.2
Manganese		363	J L	0.086	0.86
Molybdenum		44.9		0.22	1.7
Nickel		16.2	L	0.11	3.4
Potassium		1370		35.3	258
Selenium		0.74	U	0.74	0.86
Silver		0.14	U	0.14	0.17
Sodium		144		50.8	103
Vanadium		46.5	L	0.081	1.7
Zinc		276	J L	0.34	0.86

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Date Analyzed:	11/23/2010 2229			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		179	J	2.0	9.6

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2031			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.42	B J L	0.0020	1.0
Cadmium		0.13		0.0020	0.10
Chromium		0.013	B	0.0030	0.50
Lead		0.094	B	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1603		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000057	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.64 g
Date Analyzed:	11/18/2010 1546		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.13		0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Date Analyzed:	11/19/2010 1831			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		818	J L	1.4	4.7
Antimony		44.8		0.36	0.56
Arsenic		24.1		0.62	0.93
Barium		68.3	J L	0.071	0.47
Beryllium		0.063	B	0.031	0.19
Boron		2.6		0.92	1.9
Cadmium		3.9		0.038	0.19
Calcium		2060	J L	13.2	46.7
Chromium		198		0.054	0.19
Cobalt		16.8	L	0.093	0.93
Copper		678	L	0.20	0.93
Iron		161000		3.6	4.7
Lead		347		0.25	0.47
Magnesium		522	J L	3.5	18.7
Manganese		1300	J L	0.093	0.93
Molybdenum		51.1		0.24	1.9
Nickel		271	L	0.11	3.7
Potassium		163	B	38.3	280
Selenium		0.81	B	0.80	0.93
Silver		0.46		0.15	0.19
Sodium		2280		55.1	112
Vanadium		17.5	L	0.088	1.9
Zinc		902	J L	0.37	0.93

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Date Analyzed:	11/23/2010 2231			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		89.1	J	2.0	9.4

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2033			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.88	B J L	0.0020	1.0
Cadmium		0.080	B	0.0020	0.10
Chromium		0.021	B	0.0030	0.50
Lead		1.4		0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1605		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000055	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.62 g
Date Analyzed:	11/18/2010 1548		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.30		0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 280-42187		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-41041		Lab File ID:	26a111910.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Date Analyzed:	11/19/2010 1833			Final Weight/Volume:	100 mL
Date Prepared:	11/19/2010 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		1550	J L	1.4	4.5
Antimony		40.4		0.35	0.55
Arsenic		5.2		0.60	0.91
Barium		104	J L	0.069	0.45
Beryllium		0.11	B	0.030	0.18
Boron		12.2		0.89	1.8
Cadmium		6.0		0.037	0.18
Calcium		3540	J L	12.8	45.5
Chromium		112		0.053	0.18
Cobalt		6.0	L	0.091	0.91
Copper		6650	L	0.20	0.91
Iron		31200		3.5	4.5
Lead		751		0.25	0.45
Magnesium		1320	J L	3.4	18.2
Manganese		560	J L	0.091	0.91
Molybdenum		129		0.24	1.8
Nickel		74.1	L	0.11	3.6
Potassium		304		37.3	273
Selenium		0.78	U	0.78	0.91
Silver		1.3		0.15	0.18
Sodium		107	B	53.7	109
Vanadium		88.7	L	0.086	1.8
Zinc		1070	J L	0.36	0.91

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3050B	Prep Batch: 280-42260		Lab File ID:	26c112310.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/23/2010 2233			Final Weight/Volume:	100 mL
Date Prepared:	11/23/2010 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silicon		113	J	2.1	10

6010B TCLP Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 280-42686		Instrument ID:	MT_026
Preparation:	3010A	Prep Batch: 280-41043		Lab File ID:	26c112310.asc
Dilution:	1.0	Leachate Batch: 280-40756		Initial Weight/Volume:	10 mL
Date Analyzed:	11/23/2010 2047			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2010 1400				
Date Leached:	11/12/2010 1815				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

6010B TCLP Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Barium		0.91	B J L	0.0020	1.0
Cadmium		0.089	B	0.0020	0.10
Chromium		0.038	B	0.0030	0.50
Lead		2.0		0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Method:	7470A	Analysis Batch: 280-42193	Instrument ID:	MT_033
Preparation:	7470A	Prep Batch: 280-41828	Lab File ID:	101119AA.txt
Dilution:	1.0	Leachate Batch: 280-40756	Initial Weight/Volume:	1.0 mL
Date Analyzed:	11/19/2010 1608		Final Weight/Volume:	10 mL
Date Prepared:	11/18/2010 2200			
Date Leached:	11/12/2010 1815			

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000058	B C J	0.000030	0.0020

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 280-41892	Instrument ID:	MT_033
Preparation:	7471A	Prep Batch: 280-40984	Lab File ID:	101118AA.txt
Dilution:	1.0		Initial Weight/Volume:	0.67 g
Date Analyzed:	11/18/2010 1550		Final Weight/Volume:	50 mL
Date Prepared:	11/18/2010 0900			

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.28	M	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B533**

Lab Sample ID: 280-9733-1
Client Matrix: Solid

Date Sampled: 11/09/2010 1425
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.19		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B534**

Lab Sample ID: 280-9733-2
Client Matrix: Solid

Date Sampled: 11/09/2010 1430
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B535**

Lab Sample ID: 280-9733-3
Client Matrix: Solid

Date Sampled: 11/09/2010 1450
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B536**

Lab Sample ID: 280-9733-4
Client Matrix: Solid

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B537**

Lab Sample ID: 280-9733-5
Client Matrix: Solid

Date Sampled: 11/09/2010 1515
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B631**

Lab Sample ID: 280-9733-6
Client Matrix: Solid

Date Sampled: 11/09/2010 1505
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

General Chemistry

Client Sample ID: **J1B632**

Lab Sample ID: 280-9733-7
Client Matrix: Solid

Date Sampled: 11/09/2010 1500
Date Received: 11/12/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.6		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-40944 Date Analyzed: 11/15/2010 1018 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-41015					
LCS 280-41015/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-41015/1-A	Method Blank	T	Solid	3550C	
280-9733-2	J1B534	T	Solid	3550C	
280-9733-2MS	Matrix Spike	T	Solid	3550C	
280-9733-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-9733-3	J1B535	T	Solid	3550C	
280-9733-4	J1B536	T	Solid	3550C	
280-9733-5	J1B537	T	Solid	3550C	
280-9733-6	J1B631	T	Solid	3550C	
280-9733-7	J1B632	T	Solid	3550C	
Analysis Batch:280-41546					
LCS 280-41015/2-A	Lab Control Sample	T	Solid	8270C	280-41015
MB 280-41015/1-A	Method Blank	T	Solid	8270C	280-41015
280-9733-2	J1B534	T	Solid	8270C	280-41015
280-9733-2MS	Matrix Spike	T	Solid	8270C	280-41015
280-9733-2MSD	Matrix Spike Duplicate	T	Solid	8270C	280-41015
280-9733-3	J1B535	T	Solid	8270C	280-41015
280-9733-4	J1B536	T	Solid	8270C	280-41015
280-9733-5	J1B537	T	Solid	8270C	280-41015
280-9733-6	J1B631	T	Solid	8270C	280-41015
280-9733-7	J1B632	T	Solid	8270C	280-41015

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-40825					
LCS 280-40825/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-40825/1-A	Method Blank	T	Solid	3550C	
280-9733-2	J1B534	T	Solid	3550C	
280-9733-2MS	Matrix Spike	T	Solid	3550C	
280-9733-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-9733-3	J1B535	T	Solid	3550C	
280-9733-4	J1B536	T	Solid	3550C	
280-9733-5	J1B537	T	Solid	3550C	
280-9733-6	J1B631	T	Solid	3550C	
280-9733-7	J1B632	T	Solid	3550C	
Prep Batch: 280-41018					
LCS 280-41018/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-41018/1-A	Method Blank	T	Solid	3550C	
280-9733-1	J1B533	T	Solid	3550C	
280-9733-2	J1B534	T	Solid	3550C	
280-9733-3	J1B535	T	Solid	3550C	
280-9733-4	J1B536	T	Solid	3550C	
280-9733-5	J1B537	T	Solid	3550C	
280-9733-6	J1B631	T	Solid	3550C	
280-9733-7	J1B632	T	Solid	3550C	
280-9733-7MS	Matrix Spike	T	Solid	3550C	
280-9733-7MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-41950					
LCS 280-41018/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-41018
MB 280-41018/1-A	Method Blank	T	Solid	NWTPH-Dx	280-41018
280-9733-1	J1B533	T	Solid	NWTPH-Dx	280-41018
280-9733-3	J1B535	T	Solid	NWTPH-Dx	280-41018
280-9733-4	J1B536	T	Solid	NWTPH-Dx	280-41018
280-9733-5	J1B537	T	Solid	NWTPH-Dx	280-41018
280-9733-6	J1B631	T	Solid	NWTPH-Dx	280-41018
280-9733-7	J1B632	T	Solid	NWTPH-Dx	280-41018
280-9733-7MS	Matrix Spike	T	Solid	NWTPH-Dx	280-41018
280-9733-7MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-41018
Analysis Batch:280-41960					
280-9733-2	J1B534	T	Solid	NWTPH-Dx	280-41018

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-42433					
LCS 280-40825/2-A	Lab Control Sample	T	Solid	8082	280-40825
MB 280-40825/1-A	Method Blank	T	Solid	8082	280-40825
280-9733-2	J1B534	T	Solid	8082	280-40825
280-9733-2MS	Matrix Spike	T	Solid	8082	280-40825
280-9733-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-40825
280-9733-3	J1B535	T	Solid	8082	280-40825
280-9733-4	J1B536	T	Solid	8082	280-40825
280-9733-5	J1B537	T	Solid	8082	280-40825
280-9733-6	J1B631	T	Solid	8082	280-40825
280-9733-7	J1B632	T	Solid	8082	280-40825

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-40756					
LCS 280-40756/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-40756/2-D	Lab Control Sample	P	Solid	1311	
LB 280-40756/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-40756/1-D	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-9733-2	J1B534	P	Solid	1311	
280-9733-3	J1B535	P	Solid	1311	
280-9733-3DU	Duplicate	P	Solid	1311	
280-9733-3MS	Matrix Spike	P	Solid	1311	
280-9733-4	J1B536	P	Solid	1311	
280-9733-5	J1B537	P	Solid	1311	
280-9733-6	J1B631	P	Solid	1311	
280-9733-7	J1B632	P	Solid	1311	
280-9733-7DU	Duplicate	P	Solid	1311	
280-9733-7MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-40984					
LCS 280-40984/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-40984/1-A	Method Blank	T	Solid	7471A	
280-9733-1	J1B533	T	Solid	7471A	
280-9733-2	J1B534	T	Solid	7471A	
280-9733-3	J1B535	T	Solid	7471A	
280-9733-4	J1B536	T	Solid	7471A	
280-9733-5	J1B537	T	Solid	7471A	
280-9733-6	J1B631	T	Solid	7471A	
280-9733-7	J1B632	T	Solid	7471A	
280-9733-7DU	Duplicate	T	Solid	7471A	
280-9733-7MS	Matrix Spike	T	Solid	7471A	
Prep Batch: 280-41041					
LCS 280-41041/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-41041/1-A	Method Blank	T	Solid	3050B	
280-9733-1	J1B533	T	Solid	3050B	
280-9733-2	J1B534	T	Solid	3050B	
280-9733-3	J1B535	T	Solid	3050B	
280-9733-3DU	Duplicate	T	Solid	3050B	
280-9733-3MS	Matrix Spike	T	Solid	3050B	
280-9733-4	J1B536	T	Solid	3050B	
280-9733-5	J1B537	T	Solid	3050B	
280-9733-6	J1B631	T	Solid	3050B	
280-9733-7	J1B632	T	Solid	3050B	

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-41043					
LCS 280-40756/2-B	Lab Control Sample	P	Solid	3010A	280-40756
LB 280-40756/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-40756
280-9733-2	J1B534	P	Solid	3010A	280-40756
280-9733-3	J1B535	P	Solid	3010A	280-40756
280-9733-3DU	Duplicate	P	Solid	3010A	280-40756
280-9733-3MS	Matrix Spike	P	Solid	3010A	280-40756
280-9733-4	J1B536	P	Solid	3010A	280-40756
280-9733-5	J1B537	P	Solid	3010A	280-40756
280-9733-6	J1B631	P	Solid	3010A	280-40756
280-9733-7	J1B632	P	Solid	3010A	280-40756
Prep Batch: 280-41828					
LCS 280-40756/2-D	Lab Control Sample	P	Solid	7470A	280-40756
LB 280-40756/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-40756
280-9733-2	J1B534	P	Solid	7470A	280-40756
280-9733-3	J1B535	P	Solid	7470A	280-40756
280-9733-4	J1B536	P	Solid	7470A	280-40756
280-9733-5	J1B537	P	Solid	7470A	280-40756
280-9733-6	J1B631	P	Solid	7470A	280-40756
280-9733-7	J1B632	P	Solid	7470A	280-40756
280-9733-7DU	Duplicate	P	Solid	7470A	280-40756
280-9733-7MS	Matrix Spike	P	Solid	7470A	280-40756
Analysis Batch:280-41892					
LCS 280-40984/2-A	Lab Control Sample	T	Solid	7471A	280-40984
MB 280-40984/1-A	Method Blank	T	Solid	7471A	280-40984
280-9733-1	J1B533	T	Solid	7471A	280-40984
280-9733-2	J1B534	T	Solid	7471A	280-40984
280-9733-3	J1B535	T	Solid	7471A	280-40984
280-9733-4	J1B536	T	Solid	7471A	280-40984
280-9733-5	J1B537	T	Solid	7471A	280-40984
280-9733-6	J1B631	T	Solid	7471A	280-40984
280-9733-7	J1B632	T	Solid	7471A	280-40984
280-9733-7DU	Duplicate	T	Solid	7471A	280-40984
280-9733-7MS	Matrix Spike	T	Solid	7471A	280-40984

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-42187					
LCS 280-41041/2-A	Lab Control Sample	T	Solid	6010B	280-41041
MB 280-41041/1-A	Method Blank	T	Solid	6010B	280-41041
280-9733-1	J1B533	T	Solid	6010B	280-41041
280-9733-2	J1B534	T	Solid	6010B	280-41041
280-9733-3	J1B535	T	Solid	6010B	280-41041
280-9733-3DU	Duplicate	T	Solid	6010B	280-41041
280-9733-3MS	Matrix Spike	T	Solid	6010B	280-41041
280-9733-4	J1B536	T	Solid	6010B	280-41041
280-9733-5	J1B537	T	Solid	6010B	280-41041
280-9733-6	J1B631	T	Solid	6010B	280-41041
280-9733-7	J1B632	T	Solid	6010B	280-41041
Analysis Batch:280-42193					
LCS 280-40756/2-D	Lab Control Sample	P	Solid	7470A	280-41828
LB 280-40756/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-41828
280-9733-2	J1B534	P	Solid	7470A	280-41828
280-9733-3	J1B535	P	Solid	7470A	280-41828
280-9733-4	J1B536	P	Solid	7470A	280-41828
280-9733-5	J1B537	P	Solid	7470A	280-41828
280-9733-6	J1B631	P	Solid	7470A	280-41828
280-9733-7	J1B632	P	Solid	7470A	280-41828
280-9733-7DU	Duplicate	P	Solid	7470A	280-41828
280-9733-7MS	Matrix Spike	P	Solid	7470A	280-41828
Prep Batch: 280-42260					
LCS 280-42260/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-42260/1-A	Method Blank	T	Solid	3050B	
280-9733-1	J1B533	T	Solid	3050B	
280-9733-2	J1B534	T	Solid	3050B	
280-9733-3	J1B535	T	Solid	3050B	
280-9733-3DU	Duplicate	T	Solid	3050B	
280-9733-3MS	Matrix Spike	T	Solid	3050B	
280-9733-4	J1B536	T	Solid	3050B	
280-9733-5	J1B537	T	Solid	3050B	
280-9733-6	J1B631	T	Solid	3050B	
280-9733-7	J1B632	T	Solid	3050B	

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-42686					
LCS 280-40756/2-B	Lab Control Sample	P	Solid	6010B	280-41043
LB 280-40756/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-41043
LCS 280-42260/2-A	Lab Control Sample	T	Solid	6010B	280-42260
MB 280-42260/1-A	Method Blank	T	Solid	6010B	280-42260
280-9733-1	J1B533	T	Solid	6010B	280-42260
280-9733-2	J1B534	P	Solid	6010B	280-41043
280-9733-2	J1B534	T	Solid	6010B	280-42260
280-9733-3	J1B535	P	Solid	6010B	280-41043
280-9733-3DU	Duplicate	P	Solid	6010B	280-41043
280-9733-3MS	Matrix Spike	P	Solid	6010B	280-41043
280-9733-3	J1B535	T	Solid	6010B	280-42260
280-9733-3DU	Duplicate	T	Solid	6010B	280-42260
280-9733-3MS	Matrix Spike	T	Solid	6010B	280-42260
280-9733-4	J1B536	P	Solid	6010B	280-41043
280-9733-4	J1B536	T	Solid	6010B	280-42260
280-9733-5	J1B537	P	Solid	6010B	280-41043
280-9733-5	J1B537	T	Solid	6010B	280-42260
280-9733-6	J1B631	P	Solid	6010B	280-41043
280-9733-6	J1B631	T	Solid	6010B	280-42260
280-9733-7	J1B632	P	Solid	6010B	280-41043
280-9733-7	J1B632	T	Solid	6010B	280-42260

Report Basis
P = TCLP
T = Total

General Chemistry

Analysis Batch:280-40944				
280-9733-1	J1B533	T	Solid	D-2216
280-9733-1DU	Duplicate	T	Solid	D-2216
280-9733-2	J1B534	T	Solid	D-2216
280-9733-3	J1B535	T	Solid	D-2216
280-9733-4	J1B536	T	Solid	D-2216
280-9733-5	J1B537	T	Solid	D-2216
280-9733-6	J1B631	T	Solid	D-2216
280-9733-7	J1B632	T	Solid	D-2216

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-41015

Method: 8270C
Preparation: 3550C

Lab Sample ID: MB 280-41015/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/17/2010 0943
Date Prepared: 11/15/2010 1945

Analysis Batch: 280-41546
Prep Batch: 280-41015
Units: ug/Kg

Instrument ID: MSS_B
Lab File ID: B1938.D
Initial Weight/Volume: 32.4 g
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.5	U	9.5	310
Acenaphthylene	16	U	16	310
Anthracene	16	U	16	310
Benzo[a]anthracene	19	U	19	310
Benzo[a]pyrene	19	U	19	310
Benzo[b]fluoranthene	24	U	24	310
Benzo[ghi]perylene	15	U	15	310
Benzo[k]fluoranthene	37	U	37	310
Bis(2-chloroethoxy)methane	21	U	21	310
Bis(2-chloroethyl)ether	15	U	15	310
bis (2-chloroisopropyl) ether	21	U	21	310
Bis(2-ethylhexyl) phthalate	43	U	43	310
4-Bromophenyl phenyl ether	18	U	18	310
Butyl benzyl phthalate	40	U	40	310
Carbazole	33	U	33	310
4-Chloroaniline	76	U	76	310
4-Chloro-3-methylphenol	61	U	61	310
2-Chloronaphthalene	9.3	U	9.3	310
2-Chlorophenol	19	U	19	310
4-Chlorophenyl phenyl ether	19	U	19	310
Chrysene	25	U	25	310
Dibenz(a,h)anthracene	18	U	18	310
Dibenzofuran	19	U	19	310
1,2-Dichlorobenzene	20	U	20	310
1,3-Dichlorobenzene	11	U	11	310
1,4-Dichlorobenzene	13	U	13	310
3,3'-Dichlorobenzidine	83	U	83	610
2,4-Dichlorophenol	9.3	U	9.3	310
Diethyl phthalate	32.2	J	24	310
2,4-Dimethylphenol	61	U	61	310
Dimethyl phthalate	21	U	21	310
Di-n-butyl phthalate	27	U	27	310
4,6-Dinitro-2-methylphenol	310	U	310	610
2,4-Dinitrophenol	310	U	310	760
2,4-Dinitrotoluene	61	U	61	310
2,6-Dinitrotoluene	26	U	26	310
Di-n-octyl phthalate	13	U	13	310
Fluoranthene	33	U	33	310
Fluorene	17	U	17	310
Hexachlorobenzene	27	U	27	310
Hexachlorobutadiene	9.3	U	9.3	310
Hexachlorocyclopentadiene	46	U	46	310
Hexachloroethane	20	U	20	310

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-41015

Method: 8270C
Preparation: 3550C

Lab Sample ID: MB 280-41015/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/17/2010 0943
Date Prepared: 11/15/2010 1945

Analysis Batch: 280-41546
Prep Batch: 280-41015
Units: ug/Kg

Instrument ID: MSS_B
Lab File ID: B1938.D
Initial Weight/Volume: 32.4 g
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

Analyte	Result	Qual	MDL	RL
Indeno[1,2,3-cd]pyrene	20	U	20	310
Isophorone	16	U	16	310
2-Methylnaphthalene	18	U	18	310
2-Methylphenol	12	U	12	310
3 & 4 Methylphenol	31	U	31	310
Naphthalene	29	U	29	310
2-Nitroaniline	46	U	46	310
3-Nitroaniline	68	U	68	310
4-Nitroaniline	67	U	67	310
Nitrobenzene	20	U	20	310
2-Nitrophenol	9.3	U	9.3	310
4-Nitrophenol	90	U	90	610
N-Nitrosodi-n-propylamine	29	U	29	310
N-Nitrosodiphenylamine	19	U	19	310
Pentachlorophenol	310	U	310	610
Phenanthrene	16	U	16	310
Phenol	17	U	17	310
Pyrene	11	U	11	310
1,2,4-Trichlorobenzene	26	U	26	310
2,4,5-Trichlorophenol	9.3	U	9.3	310
2,4,6-Trichlorophenol	9.3	U	9.3	310

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	79	50 - 120
2-Fluorophenol	83	53 - 120
Nitrobenzene-d5	78	50 - 120
Phenol-d5	82	52 - 120
Terphenyl-d14	102	55 - 120
2,4,6-Tribromophenol	71	51 - 120

Method Blank TICs- Batch: 280-41015

Cas Number	Analyte	RT	Est. Result	Qual
4914-92-5	2-Pentene, 3,4-dimethyl-, (E)-	3.04	214	N J
	Unknown	3.46	5050	N J
	Unknown	1.73	5810	N J

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Lab Control Sample - Batch: 280-41015

Method: 8270C
Preparation: 3550C

Lab Sample ID: LCS 280-41015/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/17/2010 1003
Date Prepared: 11/15/2010 1945

Analysis Batch: 280-41546
Prep Batch: 280-41015
Units: ug/Kg

Instrument ID: MSS_B
Lab File ID: B1939.D
Initial Weight/Volume: 31.5 g
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2540	2080	82	52 - 120	
Anthracene	2540	1970	77	57 - 120	
Carbazole	2540	1950	77	54 - 120	
4-Chloro-3-methylphenol	2540	2070	81	57 - 120	
2-Chlorophenol	2540	1950	77	53 - 120	
1,4-Dichlorobenzene	2540	2070	82	46 - 120	
2,4-Dinitrotoluene	2540	2340	92	53 - 120	
2-Methylnaphthalene	2540	1770	70	55 - 120	
2-Methylphenol	2540	1930	76	51 - 120	
4-Nitrophenol	2540	2120	84	41 - 120	
N-Nitrosodi-n-propylamine	2540	1970	77	51 - 120	
Pentachlorophenol	2540	1950	77	30 - 120	
Phenol	2540	2010	79	54 - 120	
Pyrene	2540	2600	102	50 - 120	
1,2,4-Trichlorobenzene	2540	1970	78	50 - 120	
2,4,6-Trichlorophenol	2540	1940	77	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	75	50 - 120
2-Fluorophenol	77	53 - 120
Nitrobenzene-d5	77	50 - 120
Phenol-d5	83	52 - 120
Terphenyl-d14	98	55 - 120
2,4,6-Tribromophenol	74	51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-41015

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-9733-2	Analysis Batch: 280-41546	Instrument ID: MSS_B
Client Matrix:	Solid	Prep Batch: 280-41015	Lab File ID: B1950.D
Dilution:	1.0		Initial Weight/Volume: 30.1 g
Date Analyzed:	11/17/2010 1348		Final Weight/Volume: 1000 uL
Date Prepared:	11/15/2010 1945		Injection Volume: 0.5 uL

MSD Lab Sample ID:	280-9733-2	Analysis Batch: 280-41546	Instrument ID: MSS_B
Client Matrix:	Solid	Prep Batch: 280-41015	Lab File ID: B1951.D
Dilution:	1.0		Initial Weight/Volume: 30.1 g
Date Analyzed:	11/17/2010 1408		Final Weight/Volume: 1000 uL
Date Prepared:	11/15/2010 1945		Injection Volume: 0.5 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	82	86	52 - 120	4	30		
Anthracene	81	89	57 - 120	9	30		
Carbazole	85	92	54 - 120	9	30		
4-Chloro-3-methylphenol	94	94	57 - 120	0	30		
2-Chlorophenol	82	85	53 - 120	3	30		
1,4-Dichlorobenzene	70	73	46 - 120	4	30		
2,4-Dinitrotoluene	66	50	53 - 120	26	30		
2-Methylnaphthalene	82	87	55 - 120	6	30		
2-Methylphenol	89	89	51 - 120	1	30		
4-Nitrophenol	86	86	41 - 120	1	30		
N-Nitrosodi-n-propylamine	83	85	51 - 120	3	30		
Pentachlorophenol	96	102	30 - 120	5	30		
Phenol	91	91	54 - 120	0	30		
Pyrene	91	113	50 - 120	22	38		
1,2,4-Trichlorobenzene	72	77	50 - 120	7	30		
2,4,6-Trichlorophenol	89	87	50 - 120	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	82	80	50 - 120
2-Fluorophenol	84	86	53 - 120
Nitrobenzene-d5	80	85	50 - 120
Phenol-d5	88	91	52 - 120
Terphenyl-d14	92	122 *	55 - 120
2,4,6-Tribromophenol	83	88	51 - 120

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-40825

Method: 8082
Preparation: 3550C

Lab Sample ID: MB 280-40825/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 0342
Date Prepared: 11/14/2010 0924

Analysis Batch: 280-42433
Prep Batch: 280-40825
Units: ug/Kg

Instrument ID: GCS_W
Lab File ID: 028F2801.D
Initial Weight/Volume: 31.9 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.6	U	2.6	9.4
Aroclor 1221	7.5	U	7.5	16
Aroclor 1232	1.9	U	1.9	9.4
Aroclor 1242	4.4	U	4.4	9.4
Aroclor 1248	4.4	U	4.4	9.4
Aroclor 1254	2.4	U	2.4	9.4
Aroclor 1260	2.4	U	2.4	9.4

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	81	59 - 130
Tetrachloro-m-xylene	80	53 - 128

Lab Control Sample - Batch: 280-40825

Method: 8082
Preparation: 3550C

Lab Sample ID: LCS 280-40825/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 0414
Date Prepared: 11/14/2010 0924

Analysis Batch: 280-42433
Prep Batch: 280-40825
Units: ug/Kg

Instrument ID: GCS_W
Lab File ID: 029F2901.D
Initial Weight/Volume: 30.6 g
Final Weight/Volume: 5000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	32.7	26.5	81	54 - 132	
Aroclor 1260	32.7	29.4	90	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	85	59 - 130
Tetrachloro-m-xylene	79	53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-40825

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-9733-2	Analysis Batch: 280-42433	Instrument ID: GCS_W
Client Matrix:	Solid	Prep Batch: 280-40825	Lab File ID: 031F3101.D
Dilution:	1.0		Initial Weight/Volume: 30.6 g
Date Analyzed:	11/18/2010 0517		Final Weight/Volume: 5000 uL
Date Prepared:	11/14/2010 0924		Injection Volume: 1 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	280-9733-2	Analysis Batch: 280-42433	Instrument ID: GCS_W
Client Matrix:	Solid	Prep Batch: 280-40825	Lab File ID: 032F3201.D
Dilution:	1.0		Initial Weight/Volume: 32.7 g
Date Analyzed:	11/18/2010 0549		Final Weight/Volume: 5000 uL
Date Prepared:	11/14/2010 0924		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	66	71	54 - 132	1	26		
Aroclor 1260	51	55	62 - 129	1	26	N	N

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	62	71	59 - 130
Tetrachloro-m-xylene	78	83	53 - 128

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-41018

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-41018/1-A	Analysis Batch:	280-41950	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-41018	Lab File ID:	005B0501.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.6 g
Date Analyzed:	11/16/2010 1848			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	Result	Qual	MDL	RL
C10-C36	980	U	980	3900
C10-C28	660	U	660	3900

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	84	49 - 115

Lab Control Sample - Batch: 280-41018

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-41018/2-A	Analysis Batch:	280-41950	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-41018	Lab File ID:	006B0601.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	32.1 g
Date Analyzed:	11/16/2010 1917			Final Weight/Volume:	1000 uL
Date Prepared:	11/16/2010 0038			Injection Volume:	1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	62300	55200	89	57 - 115	
C10-C28	62300	55100	89	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	78	49 - 115

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-41018

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-9733-7	Analysis Batch: 280-41950	Instrument ID: GCS_U
Client Matrix:	Solid	Prep Batch: 280-41018	Lab File ID: 014B1401.D
Dilution:	1.0		Initial Weight/Volume: 30.4 g
Date Analyzed:	11/16/2010 2302		Final Weight/Volume: 1000 uL
Date Prepared:	11/16/2010 0038		Injection Volume: 1 uL

MSD Lab Sample ID:	280-9733-7	Analysis Batch: 280-41950	Instrument ID: GCS_U
Client Matrix:	Solid	Prep Batch: 280-41018	Lab File ID: 016B1601.D
Dilution:	1.0		Initial Weight/Volume: 30.5 g
Date Analyzed:	11/16/2010 2358		Final Weight/Volume: 1000 uL
Date Prepared:	11/16/2010 0038		Injection Volume: 1 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	106	110	57 - 115	1	23		
C10-C28	108	108	56 - 115	0	23		

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
o-Terphenyl	132	*	125	*	49 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-41041

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 280-41041/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/19/2010 1758
Date Prepared: 11/19/2010 0800

Analysis Batch: 280-42187
Prep Batch: 280-41041
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26a111910.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Aluminum	2.12	B	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.157	B	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	16.39	B	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
Magnesium	6.08	B	3.7	20.0
Manganese	0.128	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	0.466	B	0.40	1.0

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Lab Control Sample - Batch: 280-41041

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 280-41041/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/19/2010 1801
Date Prepared: 11/19/2010 0800

Analysis Batch: 280-42187
Prep Batch: 280-41041
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26a111910.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	200.9	100	82 - 116	
Antimony	50.0	49.92	100	82 - 110	
Arsenic	100	102.4	102	85 - 110	
Barium	200	196.9	98	87 - 112	
Beryllium	5.00	4.77	95	84 - 114	
Boron	100	101.6	102	81 - 110	
Cadmium	10.0	10.35	103	87 - 110	
Calcium	5000	4918	98	82 - 114	
Chromium	20.0	20.25	101	84 - 114	
Cobalt	50.0	50.16	100	87 - 110	
Copper	25.0	24.82	99	88 - 110	
Iron	100	98.60	99	87 - 120	
Lead	50.0	50.02	100	86 - 110	
Magnesium	5000	4910	98	90 - 110	
Manganese	50.0	49.35	99	88 - 110	
Molybdenum	100	100.6	101	86 - 110	
Nickel	50.0	48.76	98	87 - 110	
Potassium	5000	5016	100	89 - 110	
Selenium	200	211.2	106	83 - 110	
Silver	5.00	5.37	107	87 - 114	
Sodium	5000	5038	101	90 - 112	
Vanadium	50.0	49.14	98	88 - 110	
Zinc	50.0	51.16	102	76 - 114	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Matrix Spike - Batch: 280-41041

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/19/2010 1815
Date Prepared: 11/19/2010 0800

Analysis Batch: 280-42187
Prep Batch: 280-41041
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26a111910.asc
Initial Weight/Volume: 1.19 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	8270		179	6714	-868	50 - 200	4
Antimony	0.36	U	44.7	30.34	68	20 - 200	
Arsenic	1.7		89.5	86.70	95	76 - 111	
Barium	95.9		179	209.2	63	52 - 159	
Beryllium	0.24		4.47	4.19	88	72 - 105	
Boron	1.1	B	89.5	83.65	92	75 - 107	
Cadmium	0.13	B	8.95	8.72	96	40 - 130	
Calcium	3050		4470	6232	71	43 - 165	
Chromium	7.9		17.9	22.99	84	70 - 200	
Cobalt	6.4		44.7	45.85	88	72 - 106	
Copper	12.1		22.4	28.03	71	37 - 187	
Iron	16900		89.5	9435	-8392	70 - 200	4
Lead	3.9		44.7	43.88	89	70 - 200	
Magnesium	2700		4470	6237	79	64 - 145	
Manganese	294		44.7	221.7	-161	40 - 200	4
Molybdenum	0.25	U	89.5	82.45	92	75 - 103	
Nickel	7.6		44.7	45.70	85	61 - 126	
Potassium	1930		4470	5351	76	56 - 172	
Selenium	0.82	U	179	174.9	98	76 - 104	
Silver	0.15	U	4.47	4.48	100	75 - 141	
Sodium	146		4470	4513	98	78 - 111	
Vanadium	42.3		44.7	62.36	45	50 - 169	N
Zinc	38.4		44.7	64.30	58	70 - 200	N

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Duplicate - Batch: 280-41041

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/19/2010 1812
Date Prepared: 11/19/2010 0800

Analysis Batch: 280-42187
Prep Batch: 280-41041
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26a111910.asc
Initial Weight/Volume: 1.07 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	8270		10140	20	40	
Antimony	0.36	U	0.38	NC	40	U
Arsenic	1.7		2.56	38	30	M
Barium	95.9		77.47	21	30	
Beryllium	0.24		0.323	29	30	
Boron	1.1	B	1.49	29	30	B
Cadmium	0.13	B	0.0945	31	30	B M
Calcium	3050		3257	7	30	
Chromium	7.9		11.95	41	40	M
Cobalt	6.4		8.22	26	30	
Copper	12.1		15.45	24	30	
Iron	16900		21740	25	40	
Lead	3.9		5.00	24	40	
Magnesium	2700		3856	35	30	M
Manganese	294		383.3	26	40	
Molybdenum	0.25	U	0.26	NC	30	U
Nickel	7.6		11.23	39	30	M
Potassium	1930		2078	7	40	
Selenium	0.82	U	0.86	NC	30	U
Silver	0.15	U	0.16	NC	30	U
Sodium	146		171.7	16	30	
Vanadium	42.3		45.90	8	30	
Zinc	38.4		46.99	20	40	

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

TCLP SPLPE Leachate Blank - Batch: 280-41043

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LB 280-40756/1-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2019
Date Prepared: 11/22/2010 1400
Date Leached: 11/12/2010 1815

Analysis Batch: 280-42686
Prep Batch: 280-41043
Units: mg/L

Leachate Batch: 280-40756

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.0182	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	0.0264	B	0.024	0.10
Silver	0.0040	U	0.0040	0.50

Lab Control Sample - Batch: 280-41043

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LCS 280-40756/2-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2022
Date Prepared: 11/22/2010 1400
Date Leached: 11/12/2010 1815

Analysis Batch: 280-42686
Prep Batch: 280-41043
Units: mg/L

Leachate Batch: 280-40756

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	4.07	102	80 - 120	
Barium	12.0	12.24	102	80 - 120	
Cadmium	1.10	1.13	103	80 - 120	
Chromium	5.20	5.22	100	80 - 120	
Lead	5.50	5.43	99	80 - 120	
Selenium	3.00	3.04	101	80 - 120	
Silver	1.05	1.10	104	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Matrix Spike - Batch: 280-41043

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2050
Date Prepared: 11/22/2010 1400
Date Leached: 11/12/2010 1815

Analysis Batch: 280-42686
Prep Batch: 280-41043
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

Leachate Batch: 280-40756

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	3.26	82	80 - 120	
Barium	0.18	B	12.0	12.15	100	80 - 120	
Cadmium	0.0020	U	1.10	1.12	102	80 - 120	
Chromium	0.0030	U	5.20	4.24	81	80 - 120	
Lead	0.013	U	5.50	4.10	75	80 - 120	N
Selenium	0.038	B	3.00	2.60	85	80 - 120	
Silver	0.0040	U	1.05	1.08	103	80 - 120	

Duplicate - Batch: 280-41043

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2052
Date Prepared: 11/22/2010 1400
Date Leached: 11/12/2010 1815

Analysis Batch: 280-42686
Prep Batch: 280-41043
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

Leachate Batch: 280-40756

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.022	NC	20	U
Barium	0.18	B	0.177	0.7	20	B
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	0.0030	U	0.0030	NC	20	U
Lead	0.013	U	0.013	NC	20	U
Selenium	0.038	B	0.0416	8	20	B
Silver	0.0040	U	0.0040	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-42260

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 280-42260/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2159
Date Prepared: 11/23/2010 0900

Analysis Batch: 280-42686
Prep Batch: 280-42260
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 1.05 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Silicon	6.82	B	2.0	9.5

Lab Control Sample - Batch: 280-42260

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 280-42260/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2201
Date Prepared: 11/23/2010 0900

Analysis Batch: 280-42686
Prep Batch: 280-42260
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silicon	980	210.4	21	10 - 70	

Matrix Spike - Batch: 280-42260

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2215
Date Prepared: 11/23/2010 0900

Analysis Batch: 280-42686
Prep Batch: 280-42260
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 1.11 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Silicon	173	959	378.8	21	20 - 200	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Duplicate - Batch: 280-42260

Method: 6010B
Preparation: 3050B

Lab Sample ID: 280-9733-3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2010 2212
Date Prepared: 11/23/2010 0900

Analysis Batch: 280-42686
Prep Batch: 280-42260
Units: mg/Kg

Instrument ID: MT_026
Lab File ID: 26c112310.asc
Initial Weight/Volume: 1.09 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Silicon	173	134.3	25	40	

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

TCLP SPLPE Leachate Blank - Batch: 280-41828

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-40756/1-D	Analysis Batch: 280-42193	Instrument ID: MT_033
Client Matrix:	Solid	Prep Batch: 280-41828	Lab File ID: 101119AA.txt
Dilution:	1.0	Units: mg/L	Initial Weight/Volume: 1.0 mL
Date Analyzed:	11/19/2010 1551		Final Weight/Volume: 10 mL
Date Prepared:	11/18/2010 2200		
Date Leached:	11/12/2010 1815	Leachate Batch: 280-40756	

Analyte	Result	Qual	MDL	RL
Mercury	0.0000500	B	0.000030	0.0020

Lab Control Sample - Batch: 280-41828

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-40756/2-D	Analysis Batch: 280-42193	Instrument ID: MT_033
Client Matrix:	Solid	Prep Batch: 280-41828	Lab File ID: 101119AA.txt
Dilution:	1.0	Units: mg/L	Initial Weight/Volume: 1.0 mL
Date Analyzed:	11/19/2010 1554		Final Weight/Volume: 10 mL
Date Prepared:	11/18/2010 2200		
Date Leached:	11/12/2010 1815	Leachate Batch: 280-40756	

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00536	107	90 - 116	

Matrix Spike - Batch: 280-41828

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-9733-7	Analysis Batch: 280-42193	Instrument ID: MT_033
Client Matrix:	Solid	Prep Batch: 280-41828	Lab File ID: 101119AA.txt
Dilution:	1.0	Units: mg/L	Initial Weight/Volume: 1.0 mL
Date Analyzed:	11/19/2010 1612		Final Weight/Volume: 10 mL
Date Prepared:	11/18/2010 2200		
Date Leached:	11/12/2010 1815	Leachate Batch: 280-40756	

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000058	B	0.00500	0.00530	105	90 - 116	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Duplicate - Batch: 280-41828

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID: 280-9733-7
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/19/2010 1610
Date Prepared: 11/18/2010 2200
Date Leached: 11/12/2010 1815

Analysis Batch: 280-42193
Prep Batch: 280-41828
Units: mg/L

Leachate Batch: 280-40756

Instrument ID: MT_033
Lab File ID: 101119AA.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.000058	B	0.0000580	0	20	B

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Method Blank - Batch: 280-40984

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 280-40984/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 1527
Date Prepared: 11/18/2010 0900

Analysis Batch: 280-41892
Prep Batch: 280-40984
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 101118AA.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-40984

Method: 7471A
Preparation: 7471A

Lab Sample ID: LCS 280-40984/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 1530
Date Prepared: 11/18/2010 0900

Analysis Batch: 280-41892
Prep Batch: 280-40984
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 101118AA.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.434	104	87 - 111	

Matrix Spike - Batch: 280-40984

Method: 7471A
Preparation: 7471A

Lab Sample ID: 280-9733-7
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 1555
Date Prepared: 11/18/2010 0900

Analysis Batch: 280-41892
Prep Batch: 280-40984
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 101118AA.txt
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.28	0.432	0.683	93	87 - 111	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Duplicate - Batch: 280-40984

Method: 7471A
Preparation: 7471A

Lab Sample ID: 280-9733-7
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/18/2010 1553
Date Prepared: 11/18/2010 0900

Analysis Batch: 280-41892
Prep Batch: 280-40984
Units: mg/Kg

Instrument ID: MT_033
Lab File ID: 101118AA.txt
Initial Weight/Volume: 0.63 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.28	0.366	27	20	M

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-9733-1
Sdg Number: J00927

Duplicate - Batch: 280-40944

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-9733-1	Analysis Batch:	280-40944	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	%	Initial Weight/Volume:	
Date Analyzed:	11/15/2010 1018			Final Weight/Volume:	
Date Prepared:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	0.19	0.19	1	20	

1.6 1.8 2.0 RFP Lm 11/12/10

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-175-001	Page 1 of 2

Collector: W. Sexsmith	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8G JEB C 11-10-10	Data Turnaround: 21 Days 15 MKJ 11/10/10 per Joan Kessner		
Project Designation: ARRA Remaining Sites Characterization Sampling - Soil In P	Sampling Location: 100-K-92		SAF No.: RC-175
Ice Chest No.: NA	Field Logbook No.: EL-1649	COA: S10K92A000	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 JEB 11-9-10

Special Handling and/or Storage

Cool 4°C JEB 11-9-10

Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
Type of Container	aG	aG	aG	aG	aG	aG	aG	P			
No. of Container(s)	1	1	1	1	1	1	1	1			
Volume	125mL	125mL	125mL	60mL	60mL	60mL	60mL	500mL			
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	TPH-Diesel Range - WTPH-D+	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	See item (3) in Special Instructions.			Area
Sample No.	Matrix *	Sample Date	Sample Time								
J1B533	SOIL	11/9/10	1475	✓			✓				E13
J1B534	SOIL	11/9/10	1430	✓	✓	✓	✓		✓	✓	1 surf
J1B535	SOIL	11/9/10	1450	✓	✓	✓	✓		✓	✓	1 subSurf
J1B536	SOIL	11/9/10	1500	✓	✓	✓	✓		✓	✓	2 surf
J1B537	SOIL	11/9/10	1515	✓	✓	✓	✓		✓	✓	2 subSurf

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CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Whitney Sexsmith	11/9/10 1545	Received By/Stored In: JEDeBrigne	11/9/10 1545
Relinquished By/Removed From: JEDeBrigne	11/9/10 1630	Received By/Stored In: J.E. Benbul	11-9-10 1630
Relinquished By/Removed From: J.E. Benbul	11-10-10 0930	Received By/Stored In: Angela Garcia AMBER	11.10.10 0930
Relinquished By/Removed From: Angela Garcia AMBER	11.10.10 1400	Received By/Stored In:	
Relinquished By/Removed From:		Received By/Stored In:	
Relinquished By/Removed From:		Received By/Stored In:	

SPECIAL INSTRUCTIONS

(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) {Mercury}
(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}
(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Gross Alpha & Gross Beta

SDG JOC927

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: Aaron Bailey	Title	Date/Time: 11/10/10 0900	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time	

REVIEWED BY JR DATE 11/10/10

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-175-001	Page 2 of 2

Collector: W. Sersmith	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8G C JEB 11-10-10	Data Turnaround: 21 Days 15 MM 11/10/10 per Joan Kessner		
Project Designation: ARRA Remaining Sites Characterization Sampling - Soil In P	Sampling Location: 100-K-92		SAF No.: RC-175
Ice Chest No.: NA	Field Logbook No.: EL-1649	COA: S10K92A000	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 JEB 11-9-10

Special Handling and/or Storage

Cool 4°C JEB 11-9-10

Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
Type of Container	aG	aG	aG	aG	aG	aG	aG	P			
No. of Container(s)	1	1	~~500~~ 0 1	1	1	1	1	1			
Volume	125mL	125mL	125mL	60mL	60mL	60mL	60mL	500mL			
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	TPH-Diesel Range - WTPH-D+	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	See item (3) in Special Instructions.			Area
Sample No.	Matrix *	Sample Date	Sample Time								
J1B631	SOIL	11/9/10	1505	✓	✓	✓	✓		✓	✓	2 underlyo
J1B632	SOIL	11/9/10	1500	✓	✓	✓	✓		✓	✓	D

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Shirley Sersmith	11/9/10 1545	J.R. DeBulgne	11/9/10 1545
J.R. DeBulgne	11/9/10 1630	J.E. Bernal	11-9-10 1630
J.E. Bernal	11-10-10 0930	Angel Garcia ANGEL	11-10-10 0930
Angel Garcia ANGEL	11-10-10 1400		

SPECIAL INSTRUCTIONS

(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) {Mercury}

(2) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}

(3) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Gross-Alpha & Gross-Beta

J00927

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: Aaron Bissell	Title	Date/Time: 11/12/10 0900
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

REVIEWED BY JR DATE 11/10/10

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 -60/OTR Solid

Analytical Due:

Report Due: ~~11/3~~ 11/29/10

Sample Check-in List

Date/Time Received: 11/12/10 100 GM Screen Result 60 microR/hr

Client: Washington Closure Hanford SDG #: J00927 NA[ ] SAF #: RC-175 NA [ ]

Job Number: 9733 Chain of Custody # RC-175-001

Shipping Container ID: _____ Air Bill # 7941080523 24 7964490900494 7941080353 3

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 1.6, 1.8, 2.0 NA [ ] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 21
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: 11/12/10

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager [signature] Date 11/15/10

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

RICHLAND, WA 99354

FedEx. Express

J1030101004022G

Ship Date: 11NOV10
ActWgt: 24.0 LB
CAD: 1033413/INET3090

Delivery Address Bar Code

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

SHIP TO: (303) 736-0100 BILL SENDER

SAMPLE RECEIVING DENVER_WCH
TESTAMERICA DENVER (WCH)
4955 YARROW ST

ARVADA, CO 80002

TRK# 0201 7941 0805 2324

FRI - 12 NOV A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

XH WHHA

68AG1/BCDA/2780

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

RICHLAND, WA 99354

FedEx. Express

Ship Date: 11NOV10
ActWgt: 25.0 LB
CAD: 1033413/INET3090

Delivery Address Bar Code

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

SHIP TO: (303) 736-0100 BILL SENDER

SAMPLE RECEIVING DENVER_WCH
TESTAMERICA DENVER (WCH)
4955 YARROW ST

ARVADA, CO 80002

TRK# 0201 7964 4090 0494

FRI - 12 NOV A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

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

RICHLAND, WA 99354

FedEx. Express

J1030101040225

Ship Date: 11NOV10
ActWgt: 43.0 LB
CAD: 1033413/INET3090

Delivery Address Bar Code

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

SHIP TO: (303) 736-0100 BILL SENDER

SAMPLE RECEIVING DENVER_WCH
TESTAMERICA DENVER (WCH)
4955 YARROW ST

ARVADA, CO 80002

TRK# 0201 7941 0803 9533

FRI - 12 NOV A1
PRIORITY OVERNIGHT

80002
CO-US
DEN

XH WHHA

60A01/8CDA/2780

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