

SAF-RC-110
100-H Burial Grounds Remaining Sites –
Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21

KW 11/28/11
INITIAL/DATE

COMMENTS:

SDG JP0325 SAF-RC-110

Rad only

Chem only

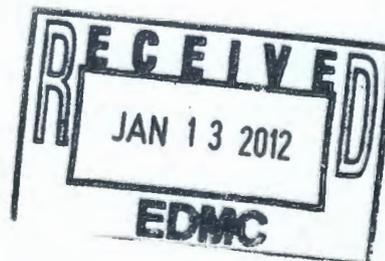
Rad & Chem

Complete

Partial

ADD-ON Cr-VI DATA ATTACHED

Waste Site: 100-H-28:2 NW Building 190



Analytical Data Package Prepared For
Washington Closure Hanford



Radiochemical Analysis By
TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 20 Pages

Report No.: 49447

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.
JP0325	RC-110	J1K577	J1K220434-1	MN7GN1AA	9MN7GN10	1326177

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

November 23, 2011

Attention: Joan Kessner

SAF Number	:	RC-110
Date SDG Closed	:	November 22, 2011
Number of Samples	:	One (1)
Sample Type	:	Soil
SDG Number	:	JP0325
Data Deliverable	:	24-Hour / Summary

CASE NARRATIVE

I. Introduction

On November 22, 2011, one soil sample was received at TestAmerica for chemistry analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

<u>WCH ID#</u>	<u>TARL ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
J1K577	MN7GN	SOIL	11/22/11

II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in. The client contacted TestAmerica Richland on November 21, 2011 and requested Hexavalent Chromium be analyzed on sample J1K577. The sample was originally analyzed at the Denver laboratory; they were contacted about the additional analysis request and the sample container was shipped overnight to Richland for the Hexavalent Chromium analysis. It was noted that the sample had not been refrigerated since October 21, 2011.

III. Analytical Results/Methodology

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

The requested analysis was:

Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

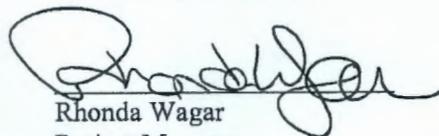
Chemical Analysis

Hexavalent Chromium by EPA method 7196A:

The matrix spike recovered low at 45%. The post digestive matrix spike recovered at 85% and the insoluble matrix spike recovered at 88%. This implies a reducing capacity in the sample, but not enough to exhaust the more copious insoluble matrix spike. Except as noted; the LCS, batch blank, sample, sample duplicate (J1K577) and sample matrix spike (J1K577) results are within contractual requirements.

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

Reviewed and approved:


Rhonda Wagar
Project Manager

Drinking Water Method Cross References

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

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

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z, \dots)$. 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/\sqrt{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 $(\text{Result}/\text{Expected})-1$ 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) <i>u_c - Combined Uncertainty.</i>	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, <i>u_c the combined uncertainty.</i> 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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 = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 23-Nov-11

TestAmerica TARL

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

Report No. : 49447

SDG No: JP0325

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
1328177	7198_CR6								
	J1K577								
	MN7GN1AA	HEXCHROME	8.03E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	MN7GN1AE	HEXCHROME	9.85E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	3.50E-01	20.4

No. of Results: 2

TestAmerica RPD - Relative Percent Difference.

rptSTLRchSaSum
mary2 V5.2.18.1
A2002

QC Results Summary

Date: 23-Nov-11

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 49447

SDG No.: JP0325

Batch	Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
7196_CR6									
1326177	MATRIX SPIKE, J1K577								
	MN7GN1AC	HEXCHROME	4.75E+00 +- 0.0E+00		mg/kg	N/A	45%	-0.6	1.55E-01
1326177	LCS,								
	MN7VW1AC	HEXCHROME	1.89E+01 +- 0.0E+00		mg/kg	N/A	95%	-0.1	1.55E-01
1326177	BLANK QC,								
	MN7VW1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
No. of Results: 3									

TestAmerica
rptSTLRchQcSummary V5.2.18.1
A2002

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

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

FORM I
SAMPLE RESULTS

Date: 23-Nov-11

Lab Name: TestAmerica
 Lot-Sample No.: J1K220434-1
 Client Sample ID: J1K577

SDG: JP0325
 Report No.: 49447
 COC No.: RC-110-055

Collection Date: 10/6/2011 9:35:00 AM
 Received Date: 11/22/2011 10:30:00 AM
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Count Qual	Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1326177	7196_CR6			Work Order: MN7GN1AA		Report DB ID: 9MN7GN10						
HEXCHROME	8.03E-01			0.0E+00	1.55E-01	mg/kg	N/A	(5.2)	11/22/11 02:00 p		2.5291	
							1.55E-01	N/A			g	

No. of Results: 1 Comments:

FORM II

Date: 23-Nov-11

DUPLICATE RESULTS

Lab Name: TestAmerica

SDG: JP0325

Collection Date: 10/6/2011 9:35:00 AM

Lot-Sample No.: J1K220434-1

Report No. : 49447

Received Date: 11/22/2011 10:30:00 AM

Client Sample ID: J1K577

COC No. : RC-110-055

Matrix: SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1326177	7196_CR6				Work Order: MN7GN1AE			Report DB ID: MN7GN1ER		Orig Sa DB ID: 9MN7GN10		
HEXCHROME	9.85E-01			0.0E+00	1.55E-01	mg/kg	N/A	(6.4)	11/22/11 02:00 p		2.4904	
	8.03E-01			RPD 20.4		3.50E-01		N/A			g	

No. of Results: 1 Comments:

FORM II BLANK RESULTS

Date: 23-Nov-11

Lab Name: TestAmerica
Matrix: SOIL

SDG: JP0325
Report No. : 49447

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1326177			7196_CR6			Work Order: MN7VW1AA			Report DB ID: MN7VW1AB			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	11/22/11 02:00 p		2.5	
						1.55E-01		N/A			g	

No. of Results: 1 Comments:

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchBlank U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.
 V5.2.18.1 A2002

FORM II
LCS RESULTS

Date: 23-Nov-11

Lab Name: TestAmerica

SDG: JP0325

Matrix: SOIL

Report No. : 49447

Parameter	Result	Count Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1326177	7196_CR6			Work Order: MN7VW1AC			Report DB ID: MN7VW1AS						
HEXCHROME	1.89E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		95%	11/22/11 02:00 p	2.5	
							Rec Limits:	80	120	-0.1		g	

No. of Results: 1 Comments:

FORM II
MATRIX SPIKE RESULTS

Date: 23-Nov-11

Lab Name: TestAmerica

SDG: JP0325

Lot-Sample No.: J1K220434-1, J1K577

Report No. : 49447

Matrix: SOIL

Parameter	SpikeResult, Orig Rst	Count Qual 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: 1326177	Work Order: MN7GN1AC	Report DB ID: MN7GN1CW	Orig Sa DB ID: 9MN7GN10								
HEXCHROME	4.75E+00	0.0E+00	1.55E-01	mg/kg	N/A	44.52%	1.07E+01	11/22/11 02:00 p	2.5747	7196_CR6	
	8.03E-01								g		

Number of Results: 1

Comments:

<u>Batch Number(s):</u> 1326177				
<u>Lab Sample Numbers or SDG:</u> JP0325				
<u>Method/Test/Parameter:</u> Cr+6 in SOLID / RL-WC-004				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd 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 (✓)	2 nd Level Review (✓)
E. Other	✓			
1. Are all nonconformances included and noted?				/
2. Is the correct date and time of analysis shown?	✓			/
3. Did the analyst sign and date the front page of the analytical run?	✓			/
4. Correct methodology used?	✓			/
5. Transcriptions checked?	✓			/
6. Calculations checked at minimum frequency?	✓			/
7. Units checked?	✓			/

Comments on any "No" response: The MS recovered low at 44.5%. PDMS recovered at 85.4%. The insoluble MS recovered within limits at 88.2%. Suspect reducing capacity in the sample. See NCM

Analyst: H. Ravi

Date: 11/23/11

Second-Level Review: [Signature]

Date: 11/23/11

Clouseau Nonconformance Memo



NCM #: 10-19792 NCM Initiated By: Hooshang Rahavi Date Opened: 11/23/2011 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Classical Chemistry Tests: 7196A Lot #'s (Sample #'s): J1K220000 (177), J1K220434 (1), QC Batches: 1326177,
Nonconformance: QC data exceeded criteria Subcategory: MS/MSD accuracy and/or precision out of control	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Hooshang Rahavi	11/23/2011	: The MS recovered low at 44.5%. PDMS recovered at 85.4%. The insoluble MS recovered within limits at 88.2%. Suspect reducing capacity in the sample.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Hooshang Rahavi	11/23/2011	Report data.

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
		This section not yet completed by QA.	

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
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3.0

TestAmerica Laboratories, Inc.

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-110-055		Page 1 of 1			
Collector Q. Stowe		Company Contact Joan Kessner		Telephone No. 509-375-4688		Project Coordinator KESSNER, JH		Price Code ^{on 10-6-11} 8L 88		Data Turnaround ^{on 10-6-11} 21 Days 7		
Project Designation 100-H Burial Grounds Remaining Sites - Soil In-Process		Sampling Location 100-H-28:2 NW Building 190		SAF No. RC-110								
Ice Chest No. WCH-11-022		Field Logbook No. EL 1627-05		COA 01H2822600		Method of Shipment FedEx						
Shipped To ^{on 10-6-11} TestAmerica Incorporated, Richland Denver		Offsite Property No. A100 885		Bill of Lading/Air Bill No. See OSPC								
POSSIBLE SAMPLE HAZARDS/REMARKS None				Preservation	Cool 4C	None	None					
Special Handling and/ Cool at 4 deg C				Type of Container	G/P	G	G/P					
 JP0325 J1K220434 Due 11-23-11				No. of Container(s)	1	1	1					
				Volume	60mL	120mL	60g					
				See item (1) in Special Instructions.	See item (2) in Special Instructions.	RCF SEA Shipping Screen						
Sample No.	Matrix *	Sample Date	Sample Time									
J1K576	SOIL	10-6-11	0930	X	X		RCF					
J1K577	SOIL	10-6-11	0935	X	X		RCF			MN76N		
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		(1) ICP Metals - 6010TR (Client List) (Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc); Mercury - 7471 - (CV) (2) Metals by ICP (TCLP) - 1311/6010 (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Mercury (TCLP) - 1311/7470				S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=W/pc L=Liquid V=Vegetation X=Other
Quincy Stowe		10/6/11 1010		JV Fullmer		10/6/11						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
JV Fullmer		10-6-11 1440		A. Freier		10-6-11						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
A. Freier		10-10-11 1250		Fed Ex								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION		Received By		Title		Date/Time						
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time						



JP0325

WCH-EE-011

Analyze for Cr 6 for Joan Kessner on 11/01/11. PW

Sample Check-in List

Date/Time Received: 11-22-11 / 1030 Container GM Screen Result: (Airlock) ^{95 11-22-11} ~~10~~ 06 Initials ~~B~~]
Sample GM Screen Result (Sample Receiving) 04 Initials ~~B~~]

Client: WCH SDG #: J10325 NA [] SAF #: RC-110 ~~NA~~]

Lot Number: JK220434

Chain of Custody # RC-110-055

Shipping Container ID: ~~NA~~] Air Bill Number: ~~NA~~]

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [] No []
- 6. Number of samples received (Each sample may contain multiple bottles): 1
- 7. Containers received: 1 x 120 mL AG

8. Sample holding times exceeded? NA ~~B~~] Yes [] No []

9. Samples have:
tape hazard labels
~~B~~ custody seals ~~B~~ appropriate sample labels

10. Matrix:
~~B~~ A (FLT, Wipe, Solid, Soil) I (Water)
S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples:
~~B~~ are in good condition are leaking
are broken have air bubbles (Only for samples requiring no head space)
Other

12. Sample pH appropriate for analysis requested Yes [] No [] NA ~~B~~]
(If acidification is necessary, then document sample ID, initial pH, amount of HNO₃ added and pH after addition on table overleaf)

RPL ID # of preservative used :

13. Were any anomalies identified in sample receipt? Yes [] No ~~B~~]

14. Description of anomalies (include sample numbers): NA ~~B~~]

11/22/2011 1:20:55 PM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)

Pipet #:

AnalysisDueDate: 11/23/2011

SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 1326177 SOIL

mg/kg

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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-1 MN7GN-1-AA													
J1K220434-1-SAMP													
10/06/2011 09:35				AmtRec: 1X120MLAG		#Containers: 1				Scr:	Alpha:		Beta:

2 MN7GN-1-AC-S													
J1K220434-1-MS													
10/06/2011 09:35				AmtRec: 1X120MLAG		#Containers: 1				Scr:	Alpha:		Beta:

3 MN7GN-1-AD-D													
J1K220434-1-MSD													
10/06/2011 09:35				AmtRec: 1X120MLAG		#Containers: 1				Scr:	Alpha:		Beta:

4 MN7GN-1-AE-X													
J1K220434-1-DUP													
10/06/2011 09:35				AmtRec: 1X120MLAG		#Containers: 1				Scr:	Alpha:		Beta:

5 MN7VW-1-AA-B													
J1K220000-177-BLK													
11/22/2011 13:20 pd				AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:

6 MN7VW-1-AC-C													
J1K220000-177-LCS													
11/22/2011 13:20 pd				AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:

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11/22/2011 1:20:56 PM

Sample Preparation/Analysis

Balance Id: _____

DW Alkaline Digestion by method 3060A

Pipet #: _____

EA Chromium, Hexavalent (7196A)

SI CLIENT: HANFORD

AnalyDueDate: 11/23/2011

Sep1 DT/Tm Tech: _____

Batch: 1326177

mg/kg

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: _____



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

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

MN7GN1AA-SAMP Constituent List:

MN7GN1AC-MS Constituent List:

MN7GN1AD-MSD:

MN7VW1AA-BLK:

MN7VW1AC-LCS:

MN7GN1AA-SAMP Calc Info:

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

MN7GN1AC-MS Calc Info:

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

MN7GN1AD-MSD:

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

MN7VW1AA-BLK:

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

MN7VW1AC-LCS:

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

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