

Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica TARL

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

Data Package Contains _____ Pages

Report Nbr: 51766

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06433	I12-020	B2KFW3	J2D110427-1	MRXJ81AA	9MRXJ810	2111067
		B2KFW4	J2D110427-2	MRXKL1AA	9MRXKL10	2111067
I12-009		B2JY46	J2D110430-1	MRXKM1AA	9MRXKM10	2111065
		B2JY73	J2D110430-2	MRXKN1AA	9MRXKN10	2111065
		B2JYC9	J2D110430-3	MRXKP1AA	9MRXKP10	2111065
		B2JYJ2	J2D110430-4	MRXKQ1AA	9MRXKQ10	2111065
I12-017		B2K5F4	J2D110432-1	MRXK91AA	9MRXK910	2111067
		B2K5F4	J2D110432-1	MRXK91AC	9MRXK910	2111062
		B2K5F5	J2D110432-2	MRXLV1AA	9MRXLV10	2111067
		B2K5F5	J2D110432-2	MRXLV1AC	9MRXLV10	2111062
		B2JY66	J2D120510-1	MR0VK1AA	9MR0VK10	2111065
I12-009		B2JYB1	J2D120510-2	MR0VL1AA	9MR0VL10	2111065
		B2KFX4	J2D120511-1	MR0VM1AA	9MR0VM10	2111067
I12-020		B2KFX4	J2D120511-1	MR0VM1AA	9MR0VM10	2111067
		B2KL28	J2D160452-1	MR14J1AA	9MR14J10	2110132
W12-004		B2KL28	J2D160452-1	MR14J1AA	9MR14J10	2110132
		B2KL48	J2D160452-2	MR14R1AA	9MR14R10	2110132

Comments:

Report Nbr: 51766

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH	
W06433	W12-004	B2KL58	J2D160452-3	MR14V1AA	9MR14V10	2110132	
		B2KL68	J2D160452-4	MR1471AA	9MR14710	2110132	
		B2KL78	J2D160452-5	MR1491AA	9MR14910	2110132	
		B2KL79	J2D160452-6	MR15F1AA	9MR15F10	2110132	
		B2K4B6	J2D160469-1	MR19F1AA	9MR19F10	2111066	
		B2K6V0	J2D160470-1	MR19G1AA	9MR19G10	2111067	
	W12-003	W12-004	B2KLB5	J2D170416-1	MR2KR1AA	9MR2KR10	2110131
			B2KL95	J2D170416-2	MR2K01AA	9MR2K010	2110131

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Amended Certificate of Analysis

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop – R3-60
Richland, WA 99352

TestAmerica Laboratories, Inc.

June 29, 2012

Attention: Scot Fitzgerald

SAF Number : I12-020, I12-009, I12-017, W12-004, W12-003,
S12-003,
Date SDG Closed : April 17, 2012
Number of Samples : Twenty One (21)
Sample Type : Water
SDG Number : W06433
Data Deliverable : 45-Day / Summary

AMENDED CASE NARRATIVE

I. Introduction

Between April 11, 2012 and April 17, 2012 twenty one water samples were received at TestAmerica (TARL). Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the CH2M specific IDs:

<u>CH2M ID#</u>	<u>TARL ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B2KFW3	MRXJ8	4/11/12	WATER
B2KFW4	MRXKL	4/11/12	WATER
B2JY46	MRXKM	4/11/12	WATER
B2JY73	MRXKN	4/11/12	WATER
B2JYC9	MRXKP	4/11/12	WATER
B2JYJ2	MRXKQ	4/11/12	WATER
B2K5F4	MRXK9	4/11/12	WATER
B2K5F5	MRXLV	4/11/12	WATER
B2JY66	MR0VK	4/12/12	WATER
B2JYB1	MR0VL	4/12/12	WATER
B2KFX4	MR0VM	4/12/12	WATER
B2KL28	MR14J	4/16/12	WATER
B2KL48	MR14R	4/16/12	WATER

CH2M Hill Plateau Remediation Company
June 29, 2012

B2KL58	MR14V	4/16/12	WATER
B2KL68	MR147	4/16/12	WATER
B2KL78	MR149	4/16/12	WATER
B2KL79	MR15F	4/16/12	WATER
B2K4B6	MR19F	4/16/12	WATER
B2K6V0	MR19G	4/16/12	WATER
B2KLB5	MR2KR	4/17/12	WATER
B2KL95	MR2K0	4/17/12	WATER

II. Sample Receipt

The samples were received in good condition. The service list on the COCs differ from the TARL service list. For more details refer the SIR (SDR12-236) included in this report. No other anomalies were noted during check-in.

On December 14, 2011 TARL was notified that all groundwater samples received after January 1, 2012 will have 45 day turnaround times even though the COCs may not reflect a 45 day turnaround time.

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:

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001

Iodine-129 (LL) by method RL-GAM-002

Liquid Scintillation Counting

Selenium-79 by method RL-LSC-012

Carbon-14 by method RL-LSC-008

Chemical Analysis

Total Coliform by method 9223

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.

CH2M Hill Plateau Remediation Company
June 29, 2012

V. Comments

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001:

There was insufficient volume for a duplicate. Sample B1V9W5 was recounted on a different detector for the duplicate (B2K4B6 DUP). Except as noted, the LCS, batch blank, samples and sample duplicate (B1V9W5) results are within contractual requirements.

Iodine-129 (LL) by method RL-GAM-002:

The LCS, batch blank, samples and sample duplicate (B2KFW3) results are within contractual requirements.

Liquid Scintillation Counting

Selenium-79 by method RL-LSC-012:

There is no LCS for selenium-79. Except as noted, batch blank, samples and sample duplicate (B2K5F4) results are within contractual requirements.

Carbon-14 by method RL-LSC-008:

The RPD is greater than 20%. According to the SOW, Exhibit III, Section 2.3.0-The duplicate agreement is within contractual limits. The SOW states the following: When one or both results are <5 X the RDL, the difference between the sample and duplicate should not exceed the RDL. Except as noted, the LCS, batch blank, samples and sample duplicate (B2JY46) results are within contractual requirements.

Chemical Analysis

Total Coliform by method 9223

BATCH 2110131

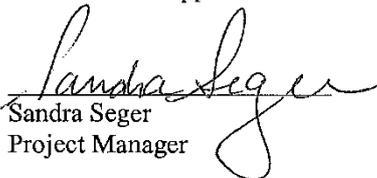
The LCS, batch blank, samples and sample duplicate (B2KLB5) results are within contractual requirements.

BATCH 2110132

The LCS, batch blank, samples and sample duplicate (B2KL28) 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

6/25/12

Problem and Discrepancy Report

TARL

SDG W06433

1. The data package has the following issues:

- a) Duplicate report, C-14, page 23, RPD is out of limits, not discussed in narrative.

Resolution: *Provide correction.*

Lab Response: Case narrative was amended. Amended hard copy data
Package was submitted on 6/29/12.

Please correct the issues and resubmit the hard copy data package.

Provide a resolution to each issue noted on the report
Page 1 of 1

SAMPLE ISSUE RESOLUTION

SIR NUM SDR12-236
REV NUM 0
DATE INITIATED 4/18/2012

SAMPLE EVENT INFORMATION

SAF NUM(S) S12-004, I12-020
OPERABLE UNIT(S) 200-ZP-1, NONE
PROJECT(S) CERC12, SURV12
SAMPLE EVENT TITLE(S) CERC12, SURV12
LABORATORY TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES 17
SAMPLE NUMBERS B2KFW3, B2KFW4, B2KFX4, B2KM67, B2KM86, B2KM87, B2KM89, B2KM91, B2KM92, B2KM95, B2KM97, B2KMB1, B2KMB3, B2KMR3, B2KMR8, B2KMOV2, B2KMOV7
SAMPLE MATRIX WATER
COLLECTION DATE 4/10/2012 - 4/10/2012
SDG NUM W06433 *W06434 SKS 5/10/12, see attached email.*

ISSUE BACKGROUND

CLASS General Laboratory Direction
TYPE Other General Laboratory Direction (Specify)
DESCRIPTION The service lists on the COCs differ from the TARL service lists. The service list on COCs is I129LL_SEP_LSC: I-129LL. The TARL service list for the requested analysis is I129LL_SEP_LEPS_GS_LL: I-129 (1).

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION: Analyze samples by I129LL_SEP_LEPS_GS_LL: I-129 (1). Initiate SIR and include comments in the case narratives.

JUSTIFICATION

ACCEPTED DISPOSITION: Accept proposed resolution.

SUBMITTED BY: Sandra Seger/TARL DATE: 4/18/12

ACCEPTED BY: Karen Waters-Husted DATE: 4/18/12

Seger, Sandra

From: Seger, Sandra
Sent: Wednesday, May 02, 2012 11:10 AM
To: 'Puckett, Susan'
Subject: RE: SDR12-236 & SDR12-238 Missing SDG Numbers
I can and will add the SDG numbers to the SIRs.

Thanks,
Sandra

From: Puckett, Susan [mailto:Susan_Puckett@rl.gov]
Sent: Wednesday, May 02, 2012 11:01 AM
To: Seger, Sandra
Subject: RE: SDR12-236 & SDR12-238 Missing SDG Numbers

Sandra,

If we don't have the SDG entered into our system at the time that I process the SIR the SDG will not print. Are you able to add them to the SIR when you insert it into the data package?

Susan Puckett
CH2M HILL Plateau Remediation Company (CHPRC)
Soil & Groundwater Project (S&GRP)
Phone: (509)-373-0880

From: Seger, Sandra [mailto:Sandra.Seger@testamericainc.com]
Sent: Wednesday, May 02, 2012 10:48 AM
To: Puckett, Susan
Subject: SDR12-236 & SDR12-238 Missing SDG Numbers

Susan,

I was starting case narratives yesterday and noticed a couple of problems with 2 SIRs. SDR12-236 should include SDGs W06433 & W06434 instead of just W06433. SDR12-238 does not have a SDG number. It is for W06434.

Thanks,
Sandra

5/2/2012

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, $R = \text{constants} * f(x,y,z,...)$. 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</i> 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, <i>u_c</i> 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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 hatch 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.

TestAmerica Report

5/23/2012 11:51:40 AM

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 51766 File Name: h:\Reportdb\edd\Feed\Rad\W06433.Edd, h:\Reportdb\edd\Feed\Rad\51766.Ed

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MROVK10 B2JY66	B2JY66	MW6-SBB-A1	112-009	W06433	TotU 2S	Qual	7.97E+00	100.0	04/11/2012 11:18	04/11/2012 11:18
Batch 2111065	Analyste C-14	Result 14762-75-5	Unit pCi/L	CntU 2S 3.9E+00	TotU 2S 4.6E+00	Qual	MDA 7.97E+00	TrcYield 100.0	Method C14_LSC	Unit L
										Alq Size 2.00E-01
										Analy Date/Time 04/27/2012 18:48
										Act I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MROVL10 B2JYB1	B2JYB1	MW6-SBB-A1	112-009	W06433	TotU 2S	Qual	7.97E+00	100.0	04/11/2012 12:28	04/11/2012 12:28
Batch 2111065	Analyste C-14	Result 14762-75-5	Unit pCi/L	CntU 2S 3.2E+00	TotU 2S 3.8E+00	Qual	MDA 7.97E+00	TrcYield 100.0	Method C14_LSC	Unit L
										Alq Size 2.00E-01
										Analy Date/Time 04/27/2012 19:31
										Act I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MROVM10 B2KFX4	B2KFX4	MW6-SBB-A1	112-020	W06433	TotU 2S	Qual	1.45E-01	95.4	04/11/2012 13:16	04/11/2012 13:16
Batch 2111067	Analyste I-129	Result 15046-84-1	Unit pCi/L	CntU 2S 8.7E-02	TotU 2S 8.7E-02	Qual	MDA 1.45E-01	TrcYield 95.4	Method I129LL_SEP_LEPS	Unit L
										Alq Size 3.893E+00
										Analy Date/Time 05/01/2012 09:05
										Act I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MR19F10 B2K4B6	B2K4B6	MW6-SBB-A1	W12-003	W06433	TotU 2S	Qual	1.54E+01		04/13/2012 08:30	04/13/2012 08:30
Batch 2111066	Analyste BE-7	Result 13966-02-4	Unit pCi/L	CntU 2S 8.8E+00	TotU 2S 8.8E+00	Qual	MDA 1.54E+01	TrcYield	Method GAMMALL_GS	Unit L
										Alq Size 2.0002E+00
										Analy Date/Time 04/28/2012 04:00
										Act I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
2111066	CO-60	10198-40-0	Unit pCi/L	CntU 2S 1.1E+00	TotU 2S 1.1E+00	Qual	MDA 1.97E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	CS-134	13967-70-9	Unit pCi/L	CntU 2S 1.1E+00	TotU 2S 1.1E+00	Qual	MDA 2.17E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	CS-137	10045-97-3	Unit pCi/L	CntU 2S 9.8E-01	TotU 2S 9.8E-01	Qual	MDA 1.73E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	EU-152	14683-23-9	Unit pCi/L	CntU 2S 2.2E+00	TotU 2S 2.2E+00	Qual	MDA 4.10E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	EU-154	15585-10-1	Unit pCi/L	CntU 2S 3.3E+00	TotU 2S 3.3E+00	Qual	MDA 5.98E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	EU-155	14391-16-3	Unit pCi/L	CntU 2S 1.4E+00	TotU 2S 1.4E+00	Qual	MDA 2.49E+00	TrcYield	Method GAMMALL_GS	Unit L
2111066	K-40	13986-00-2	Unit pCi/L	CntU 2S 3.2E+01	TotU 2S 3.2E+01	Qual	MDA 6.32E+01	TrcYield	Method GAMMALL_GS	Unit L
2111066	RU-106	13967-48-1	Unit pCi/L	CntU 2S 9.0E+00	TotU 2S 9.0E+00	Qual	MDA 1.68E+01	TrcYield	Method GAMMALL_GS	Unit L
2111066	SB-125	14234-35-6	Unit pCi/L	CntU 2S 2.1E+00	TotU 2S 2.1E+00	Qual	MDA 3.93E+00	TrcYield	Method GAMMALL_GS	Unit L
										Alq Size 2.0002E+00
										Analy Date/Time 04/28/2012 04:00
										Act I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MR19G10 B2K6V0	B2K6V0	MW6-SBB-A1	S12-003	W06433	TotU 2S	Qual	2.63E-01	85.4	04/13/2012 08:30	04/13/2012 08:30
Batch 2111067	Analyste I-129	Result 15046-84-1	Unit pCi/L	CntU 2S 6.0E-01	TotU 2S 6.0E-01	Qual	MDA 2.63E-01	TrcYield 85.4	Method I129LL_SEP_LEPS	Unit L
										Alq Size 3.6773E+00
										Analy Date/Time 05/01/2012 12:30
										Act I

TestAmerica
 rptFeedRadSummaryEdd v3.48
 U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual - Analyte was found in the associated laboratory blank above the MDC.

TestAmerica Report

5/23/2012 11:51:40 AM

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 51766 File Name: h:\Reportdb\edd\Fead\VRad\W06433.Edd, h:\Reportdb\edd\Fead\VRad\51766.Ed

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXJ810 B2KFW3			MW6-SBB-A1	I12-020	W06433					04/10/2012 07:10			
Batch 2111067	Analyte I-129	CAS# 15046-84-1	Result 6.03E-03	Unit pCi/L	CntU 2S 1.5E-01	Qual U	MDA 2.23E-01	TrcYield 85.7	Method I129LL_SEP_LEPS	Alq Size 3.8556E+00	Unit L	Analy Date/Time 04/30/2012 23:56	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXK910 B2KSF4			MW6-SBB-A1	I12-017	W06433					04/10/2012 08:20			
Batch 2111067	Analyte I-129	CAS# 15046-84-1	Result 1.39E-02	Unit pCi/L	CntU 2S 8.5E-02	Qual U	MDA 1.57E-01	TrcYield 97.0	Method I129LL_SEP_LEPS	Alq Size 3.8251E+00	Unit L	Analy Date/Time 05/01/2012 05:36	Act I
Batch 2111062	Analyte Se-79	CAS# 15758-45-9	Result -2.79E-03	Unit pCi/L	CntU 2S 5.2E+00	Qual U	MDA 1.26E+01	TrcYield 67.8	Method SE79_SEP_IE_LS	Alq Size 2.002E-01	Unit L	Analy Date/Time 05/19/2012 08:14	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXK10 B2KFW4			MW6-SBB-A1	I12-020	W06433					04/10/2012 11:05			
Batch 2111067	Analyte I-129	CAS# 15046-84-1	Result 1.60E+01	Unit pCi/L	CntU 2S 1.8E+00	Qual U	MDA 2.83E-01	TrcYield 101.6	Method I129LL_SEP_LEPS	Alq Size 3.8458E+00	Unit L	Analy Date/Time 05/01/2012 05:34	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXKM10 B2JY46			MW6-SBB-A1	I12-009	W06433					04/10/2012 12:10			
Batch 2111065	Analyte C-14	CAS# 14762-75-5	Result 2.18E+02	Unit pCi/L	CntU 2S 8.0E+00	Qual U	MDA 7.97E+00	TrcYield 100.0	Method C14_LSC	Alq Size 2.00E-01	Unit L	Analy Date/Time 04/27/2012 15:13	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXKN10 B2JY73			MW6-SBB-A1	I12-009	W06433					04/10/2012 10:30			
Batch 2111065	Analyte C-14	CAS# 14762-75-5	Result 4.02E+00	Unit pCi/L	CntU 2S 3.4E+00	Qual U	MDA 7.97E+00	TrcYield 100.0	Method C14_LSC	Alq Size 2.00E-01	Unit L	Analy Date/Time 04/27/2012 16:39	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:			
9MRXKP10 B2JYC9			MW6-SBB-A1	I12-009	W06433					04/10/2012 09:01			
Batch 2111065	Analyte C-14	CAS# 14762-75-5	Result -2.22E+00	Unit pCi/L	CntU 2S 3.2E+00	Qual U	MDA 7.97E+00	TrcYield 100.0	Method C14_LSC	Alq Size 2.00E-01	Unit L	Analy Date/Time 04/27/2012 17:22	Act I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume:	Sample On Date:	Collection Date:
9MRXKG10 B2JYJ2			MW6-SBB-A1	I12-009	W06433					04/10/2012 11:04

TestAmerica
 rptFeadRadSummaryEdd v3.48
 U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Code: TARL

TestAmerica Report

5/23/2012 11:51:40 AM

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 51766 File Name: h:\Reportdb\edd\Fead\VRad\W06433.Edd, h:\Reportdb\edd\Fead\VRad\51766.Ed

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2111065	C-14	14762-75-5	6.28E+00	pCi/L	3.5E+00	4.1E+00	U	7.97E+00	100.0	C14_LSC	2.00E-01	L	04/27/2012 18:05	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr	QC Type	Moisture/Solids%	Distilled Volume	Sample On Date	Collection Date				
9MRXLV10 B2K5F5			MW6-SBB-A1	I12-017	W06433					04/10/2012 12:42				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2111067	I-129	15046-84-1	5.76E-01	pCi/L	2.3E-01	2.3E-01	U	2.03E-01	94.3	I129LL_SEP_LEPS	3.8588E+00	L	05/01/2012 09:03	I
2111062	Se-79	15758-45-9	-3.07E+00	pCi/L	4.5E+00	5.5E+00	U	1.11E+01	74.8	SE79_SEP_IE_LS	2.044E-01	L	05/19/2012 10:00	I

TestAmerica
 rptFeadRadSummaryEdd v3.48
 U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual - Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W06433.Edd, h:\Reportdb\ledd\Fead\VRad\51766.Ed

Lab Sample Id: MR4T41AB **Sdg/Rept Nbr:** W06433 **Collection Date:** 04/10/2012 12:10
Client Id: NA **Matrix:** WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType
	MW6-SBB-A19981								AO	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Uncert	2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2111065 BLK	C-14 14762-75-5	7.76E-01	pCi/L	3.9E+00 3.3E+00	U		7.97E+00	100.0			C14_LSC	2.00E-01 L	04/27/2012 20:14				D

TestAmerica

rpt\FeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W06433.Edd, h:\Reportdb\edd\Fead\W06433.Edd

Lab Sample Id: MR4TX1AB **Sdg/Rept Nbr:** W06433 **Collection Date:** 04/10/2012 08:20
Client Id: NA **Matrix:** WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ
	MW6-SBB-A19981								AQ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2111062	Se-79	-4.33E+00	pCi/L	5.3E+00	U	1.10E+01	77.4		SE79_SEP_IE	2.009E-01	05/19/2012				D
BLK	15758-45-9			4.4E+00						L	10:52				

TestAmerica
 rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual - Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06433.Edd, h:\Reportdb\ledd\Fead\W06433.Edd

Lab Sample Id: MR4VA1AB **Sdg/Rept Nbr:** W06433 **Collection Date:** 04/13/2012 08:30
Client Id: NA **Matrix:** WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/16/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	MW6-SBB-A19981								AR	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
2111066 BLK	BE-7 13966-02-4	3.64E+00	pCi/L	1.5E+01	U	2.67E+01			GAMMALL_GS	L	04:01				D
2111066 BLK	CO-60 10198-40-0	1.16E+00	pCi/L	1.9E+00	U	3.78E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	CS-134 13967-70-9	8.32E-01	pCi/L	2.2E+00	U	4.04E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	CS-137 10045-97-3	3.36E-01	pCi/L	2.0E+00	U	3.54E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	EU-152 14683-23-9	2.08E+00	pCi/L	4.9E+00	U	8.72E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	EU-154 15585-10-1	7.76E-01	pCi/L	4.9E+00	U	9.36E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	EU-155 14391-16-3	-1.60E+00	pCi/L	5.4E+00	U	8.96E+00			GAMMALL_GS	L	04:01				D
2111066 BLK	K-40 13966-00-2	-4.28E+01	pCi/L	5.1E+01	U	1.07E+02			GAMMALL_GS	L	04:01				D
2111066 BLK	RU-106 13967-48-1	-4.26E+00	pCi/L	1.7E+01	U	2.89E+01			GAMMALL_GS	L	04:01				D
2111066 BLK	SB-125 14234-35-6	3.87E+00	pCi/L	4.7E+00	U	8.54E+00			GAMMALL_GS	L	04:01				D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\W06433.Edd, h:\Reportdb\ledd\Fead\W06433.Edd, h:\Reportdb\ledd\Fead\W06433.Edd

Lab Sample Id: MR4VE1AB **Sdg/Rept Nbr:** W06433 **Collection Date:** 04/10/2012 07:10
Client Id: NA **Matrix:** WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType
	MW6-SBB-A19981								AT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
2111067	I-129	-3.80E-02	pCi/L	9.8E-02	U	1.42E-01	95.9		1129LL_SEP_L	3.9594E+00	05/01/2012				D
BLK	15046-84-1			9.8E-02						L	12:31				

TestAmerica

rpt\FeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Feed\VRad\W06433.Edd, h:\Reportdb\edd\Feed\VRad\51766.Ed

Lab Sample Id: MR4T41CS **Sdg/Rept Nbr:** W06433 **51766** **Collection Date:** 04/10/2012 12:10
Client Id: NA **Matrix:** WATER **WATER** **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType			
	MW6-SBB-A19981								AP	H			
Batch # / Qc Type	Anal/V CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Tracer Yield	Spt Concl %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2111065 BS	C-14 14762-75-5	7.22E+03	pCi/L	4.2E+02 3.0E+02	100.0	7.24E+03 99.8	C-14_LSC	5.00E-03 L	04/27/2012 20:58	UCL	UCL	70 130	D

TestAmerica U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. 5
 rptFeedRadEdd v3.68 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\W06433.Edd, h:\Reportdb\ledd\Fead\W06433.Edd

Lab Sample Id: MR4VA1CS **Sdg/Rept Nbr:** W06433 **Collection Date:** 04/13/2012 08:30
Client Id: NA **Matrix:** WATER **Sample On Date:** 04/16/2012
Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/16/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ
	MW6-SBB-A19981								AS	H
2111066	CO-60	Unit	3.85E+01	3.67E+00	3.80E+01	GAMMALL_GS	2.0014E+00	04/28/2012	70	D
BS	10198-40-0	pCi/L	7.0E+00		101.3		L	04:01	130	
2111066	CS-137	Unit	5.40E+01	4.73E+00	5.05E+01	GAMMALL_GS	2.0014E+00	04/28/2012	70	D
BS	10045-97-3	pCi/L	9.9E+00		107.0		L	04:01	130	
2111066	EU-152	Unit	7.42E+01	1.16E+01	7.69E+01	GAMMALL_GS	2.0014E+00	04/28/2012	70	D
BS	14683-23-9	pCi/L	1.8E+01		96.9		L	04:01	130	

TestAmerica

rp\FeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Feed\VRad\W06433.Edd, h:\Reportdb\edd\Feed\VRad\51766.Ed

Lab Sample Id: MR4VE1CS **Sdg/Rept Nbr:** W06433 **51766** **Collection Date:** 04/10/2012 07:10
Client Id: NA **Matrix:** WATER **WATER** **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	Fsuffix	RType					
	MW6-SBB-A19981								AU	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2111067	I-129	1.07E+01	pCi/L	1.2E+00 1.2E+00		2.65E-01	90.0	9.79E+00 109.2	I129LL_SEP_L	3.9516E+00	05/01/2012 16:41			70	D
BS	15046-84-1									L				130	

TestAmerica
 rptFeedRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, May 23, 2012

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\W06433.Edd, h:\Reportdb\ledd\Fead\W06433.Edd

Lab Sample Id: MR19F1CR

Sdg/Rept Nbr: W06433

Collection Date: 04/13/2012 08:30

Client Id: B2K4B6

Matrix: WATER

Sample On Date:

Moisture/Solids%*: DUP

QC Type: DUP

Received Date: 04/16/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType				
Batch # / Gc Type	Analvt CAS#	Result/ Orig Rst	Unit	Qu- al	MDC	Tracer Yield	Spk Concl / %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
W12-003	MW6-SBB-A19981													
2111066	BE-7	-5.42E+00	pCi/L	U	3.34E+01			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	0.0	0.4		D
DUP	13966-02-4	3.01E-02	pCi/L	U	4.10E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	CO-60	-5.31E-01	pCi/L	U	4.12E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	0.0	0.3		D
DUP	10198-40-0	-1.18E-01	pCi/L	U	4.12E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	CS-134	9.22E-01	pCi/L	U	3.97E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	5.2	0.		D
DUP	13967-70-9	8.76E-01	pCi/L	U	3.97E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	CS-137	-8.81E-01	pCi/L	U	9.48E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	0.0	0.4		D
DUP	10045-97-3	-1.71E-01	pCi/L	U	9.48E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	EU-152	1.10E+00	pCi/L	U	1.12E+01			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	15.0	0.		D
DUP	14683-23-9	1.28E+00	pCi/L	U	1.12E+01			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	EU-154	-7.40E-01	pCi/L	U	7.12E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	0.0	0.1		D
DUP	15585-10-1	-2.09E-01	pCi/L	U	7.12E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	EU-155	1.06E+00	pCi/L	U	1.11E+02			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	226.5	0.4		D
DUP	14391-16-3	-6.57E-02	pCi/L	U	1.11E+02			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	K-40	-2.88E+01	pCi/L	U	3.38E+01			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	0.0	0.1		D
DUP	13966-00-2	-2.36E+01	pCi/L	U	3.38E+01			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	RU-106	1.01E+01	pCi/L	U	9.58E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	78.9	0.4		D
DUP	13967-48-1	4.39E+00	pCi/L	U	9.58E+00			GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D
2111066	SB-125	2.27E+00	pCi/L	U				GAMMALL_GS	2.0002E+00	04/28/2012 10:53	68.4	0.3		D
DUP	14234-35-6	1.11E+00	pCi/L	U				GAMMALL_GS	2.0002E+00	04/28/2012 10:53	20.0	3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

TestAmerica

rpt\FeadRadEdd v3.68

Wednesday, May 23, 2012

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Feed\Rad\W06433.Edd, h:\Reportdb\edd\Feed\Rad\51766.Ed

Lab Sample Id: MRXJ81CR **Sdg/Rept Nbr:** W06433 **51766** **Collection Date:** 04/10/2012 07:10
Client Id: B2KFW3 **Matrix:** WATER **WATER**
Moisture/Solids%*: **QC Type:** DUP

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ							
I12-020	MW6-SBB-A19981								AV	H							
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Uncert	2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2111067	I-129	1.53E-01	pCi/L	9.1E-02	9.1E-02		U	1.89E-01	95.7		I129LL_SEP_L	3.8423E+00	04/30/2012	183.4	2.3		D
DUP	15046-84-1	6.63E-03										L	23:57	20.0	3		

TestAmerica
rptFeedRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

W060433

Run Date: 4/19/12
Time: 15:04:42

TestAmerica Laboratories, Inc.
WET CHEM BATCHSHEET

TestAmerica Richland

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE

METHOD: IZ COLIFORM BY METHOD 9223
 QC BATCH #: 2110131
 PREP DATE: 4/19/12
 COMP DATE: 4/19/12
 USER: WAGARR

INITIALS: LMW
 ANAL: W

DATA ENTRY: SKS
 INITIALS: SKS
 DATE: 5-1-12

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
MR2KR-1-AA	J-2D170416-001	XX I 88 IZ 5I	E	4-17-12	B2KLB5 ← 1
MR2KR-1-AC	J-2D170416-001-X	XX I 88 IZ 5I	E		B2KLB5 DUP
MR2K0-1-AA	J-2D170416-002	XX I 88 IZ 5I	E		B2KL95
MR4DE-1-AA	J-2D190000-131-B	XX I 88 IZ 5I			INTRA-LAB BLANK
MR4DE-1-AC	J-2D190000-131-C	XX I 88 IZ 5I			INTRA-LAB CHECK 37.9

201/100 ml ↓

Control Limits
(0-0)

Run Date: 4/19/12
Time: 15:05:41

TestAmerica Laboratories, Inc.
WET CHEM BATCHSHEET

TestAmerica Richland
PRODUCTION FIGURES - WET CHEM

RQC050

W06433

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE

METHOD: IZ COLIFORM BY METHOD 9223
 OC BATCH #: 2110132
 PREP DATE: 4/19/12
 COMP DATE: 4/19/12
 USER: WAGARR

INITIALS: LMW
 PREP ANAL: LMW
 DATE ANAL: 5-1-12

DATA ENTRY: SGS
 INITIALS: SGS
 DATE: 5-1-12

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID
MR14J-1-AA	J-2D160452-001	XX I 88 IZ 5I	E	4-16-12	B2KL28
MR14J-1-AC	J-2D160452-001-X	XX I 88 IZ 5I	E		B2KL28 DUP
MR14R-1-AA	J-2D160452-002	XX I 88 IZ 5I	E		B2KL48
MR14V-1-AA	J-2D160452-003	XX I 88 IZ 5I	E		B2KL58
MR147-1-AA	J-2D160452-004	XX I 88 IZ 5I	E		B2KL68
MR149-1-AA	J-2D160452-005	XX I 88 IZ 5I	E		B2KL78
MR15F-1-AA	J-2D160452-006	XX I 88 IZ 5I	E		B2KL79
MR4DF-1-AA	J-2D190000-132-B	XX I 88 IZ 5I			INTRA-LAB BLANK
MR4DF-1-AC	J-2D190000-132-C	XX I 88 IZ 5I			INTRA-LAB CHECK 40.4

Handwritten notes: <1, Col/100 mL, and arrows pointing to the sample IDs.

Control Limits

(0-0)

Lot No., Due Date: J2D160469; 06/01/2012
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2111066; RGAMMA Gamma by GER
SDG, Matrix: W06433; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A
 Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A
 Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A
 Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A
 Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A
 Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A
 Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A
 Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A
 Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A
 Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A
 Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A
 Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A
 Yes No N/A

5.2 Are all required forms filled out? Yes No N/A
 Yes No N/A

5.3 Was the correct methodology used? Yes No N/A
 Yes No N/A

5.4 Was transcription checked? Yes No N/A
 Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A
 Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A
 Yes No N/A

6.0 Comments on any No response:

The sample was re-counted in order to create a duplicate.

First Level *[Signature]* Date *5-2-12*



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 21110166

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sandra Legu Date: 5-7-12



Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

5/2/2012 1:33:02 PM

Lot No., Due Date: J2D120511, J2D160470, J2D110427, J2D110432; 06/01/2012
Client, Site: 384868; PGW 615 HANFORD HANFORD
QC Batch No., Method Test: 2111067; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06433; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A
 Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A
 Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A
 Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A
 Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A
 Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A
 Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A
 Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A
 Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A
 Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A
 Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A
 Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A
 Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A
 Yes No N/A

5.2 Are all required forms filled out? Yes No N/A
 Yes No N/A

5.3 Was the correct methodology used? Yes No N/A
 Yes No N/A

5.4 Was transcription checked? Yes No N/A
 Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A
 Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A
 Yes No N/A

6.0 Comments on any No response:

First Level John Plott Date 5-2-12



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
 RADIOCHEMISTRY
 Second Level Review

Batch Number: 2111067

Review Item	Yes (✓)	No (X)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sandra Seger Date: 5-7-12



Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

5/22/2012 2:25:15 PM

Lot No., Due Date: J2D110432; 06/01/2012
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 2111062; RSE79 Se-79 by LSC
 SDG, Matrix: W06433; WATER

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

First Level *[Signature]* Date 5/22/12



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 211062

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?			✓
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			✓
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: *Sandra Legner* Date: 5-22-12

LS-038B, Rev. 10, 9/07



Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/30/2012 3:42:24 PM

Lot No., Due Date: J2D120510, J2D110430; 06/01/2012
 Client, Site: 384868; PGW 615 HANFORD HANFORD
 QC Batch No., Method Test: 2111065; RC14 C-14 by LSC
 SDG, Matrix: W06433; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Joe Anderson Date 4/30/12



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
 RADIOCHEMISTRY
 Second Level Review

Batch Number: 2111065

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sandra Seger Date: 5-2-12

LS-038B, Rev. 10, 9/07



Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

5/8/2012 12:31:26 PM

Lot No., Due Date: J2D170416; 06/01/2012
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2110131;
SDG, Matrix: W06433; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level *[Signature]* Date 5/8/12



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2110131

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sandra Seger Date: 5-11-12

Lot No., Due Date: J2D160452; 06/01/2012
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 2110132;
 SDG, Matrix: W06433; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level L. Auterson Date 5/8/12



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2110132

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sandra Seger Date: 5-11-12

CH2MHill Plateau Remediation Company		C.O.C. # 112-020-010	
Contact/Requester Karen Waters-Husted		Telephone No. 376-4650	
Sampling Origin Hanford Site		Purchase Order/Charge Code 300071ES20	
Logbook No. HNF-N-506 44/51		Ice Chest No. N/A	
Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A	
Priority: 45 Days		Offsite Property No. N/A	
<p>POSSIBLE SAMPLE HAZARDS/REMARKS *** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1995) ***</p>		<p>SPECIAL INSTRUCTIONS Hold Time 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.</p>	
Sample No.	Filter	* Date	Time
B2KFW3	N	W APR 10 2012	0710
B2KFW3	N	W APR 10 2012	0710
Sample Analysis		Holding Time	Preservative
MAX56		6 Months	None
1129LL_SEP_LSC: I-129LL		6 Months	None

Lot# J2D110427
W06433
Jue

Relinquished By AL MCINTYRE / CHPRC	Print [Signature]	Sign	Received By SSV E /	Print [Signature]	Date/Time APR 10 2012 1545
Relinquished By SSV E /	Print [Signature]	Sign	Received By KC PATTERSON / CHPRC	Print [Signature]	Date/Time APR 11 2012 0710
Relinquished By KC PATTERSON / CHPRC	Print [Signature]	Sign	Received By Lucas Velazquez	Print [Signature]	Date/Time APR 11 2012 1015
Relinquished By	Print	Sign	Received By	Print	Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION

Date/Time

Disposed By

CH2MHill Plateau Remediation Company		C.O.C. # I12-020-011	
Project Title 2ZP1, APRIL 2012		Page 1 of 1	
Contact/Requester Karen Waters-Husted		Telephone No. 376-4650	
Sampling Origin Hanford Site		Purchase Order/Charge Code 30007IES20	
Logbook No. HNF-N-506 44 / 51		Ice Chest No. N/A	
Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A	
Priority: 45 Days		Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter *	Date	Time
B2KFW4	N	W APR 10 2012	1105
B2KFW4	N	W APR 10 2012	1105
Activity Scan		Sample Analysis	
1129LL_SEP_LSC: 1-129LL		MRX KKL	
No/Type Container		Holding Time	
1x20-mL P		6 Months	
2x4-L GIP		6 Months	
Preservative		None	
Preservative		None	

JAD110427
W066433

Relinquished By AL MCINTYRE / CHPRC	Print 	Sign	Received By SSU-1	Print 	Sign	Date/Time APR 10 2012	Date/Time APR 10 2012
Relinquished By SSU-1	Print 	Sign	Received By KC Patterson / CHPRC	Print 	Sign	Date/Time APR 11 2012	Date/Time APR 11 2012
Relinquished By KC Patterson / CHPRC	Print 	Sign	Received By Lucas Velazquez / CHPRC	Print 	Sign	Date/Time APR 11 2012	Date/Time APR 11 2012
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	Date/Time

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



Sample Check-in List

Date/Time Received: 4/11/12 @ 1015 Container GM Screen Result: (Airlock) .04 Initials [LV]
Sample GM Screen Result (Sample Receiving) .03 Initials [LV]

Client: PGL SDG #: W06433 NA [] SAF #: I12-020 NA []

Lot Number: J20110427

Chain of Custody # I12-020-010;011

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

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2x vial 20; 2 4x 4LP

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

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

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

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

12. Sample pH appropriate for analysis requested Yes [LV] No [] NA []
(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: NA

13. Were any anomalies identified in sample receipt? Yes [] No [LV] SKS 4-18-12

14. Description of anomalies (include sample numbers): SKS 4-18-12 I.129LL-SEP-LSC: 1-129LL IS NOT A TARB METHOD.

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-009-034 Page 1 of 1
Collector RA Shepard CHPRG	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650		
SAF No. 112-009	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title 100KR4, JANUARY 2012	Logbook No. HNF-N-506 45 / 7 3	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol CERCLA	Priority: 45 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1995)		SPECIAL INSTRUCTIONS Hold Time 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Sample No.	Filter	* Date	Time	No./Type Container	Activity Scan	Sample Analysis	Holding Time	Preservative
B21Y46	N	4-10-12	12:10	1x20-mL P	C14_LSC: C-14 (1)	MAXX M	6 Months	None
B21Y46	N	4-10-12	12:10	2x1-L GP			6 Months	None

Lot# J2D110430
W06433

Relinquished By RA Shepard CHPRG	Date/Time APR 10 2012 1350	Received By SSSU #1	Date/Time APR 10 2012 1350	Sign 	Matrix * S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By KC Patterson CHPRG	Date/Time APR 11 2012 0710	Received By KC Patterson CHPRG	Date/Time APR 11 2012 0710	Sign 	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By KC Patterson CHPRG	Date/Time APR 11 2012 1015	Received By KC Patterson CHPRG	Date/Time APR 11 2012 1015	Sign 	

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-009-038				
Collector RA Shepard CHPRC 112-009		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1				
SAF No. 100KR4, JANUARY 2012		Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20					
Project Title TestAmerica Incorporated, Richland		Logbook No. HNF-N-506 4S / 7-3	Ice Chest No. N/A					
Shipped To (Lab) CERCLA		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A					
Protocol CERCLA		Priority: 45 Days	Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Sample No.	Filter	* Date	Time	No./Type Container	Activity Scan	Sample Analysis	Holding Time	Preservative
B2JY73	N	W 4-10-12	1030	1x20-mL P	C14_LSC: C-14 (1)	MRXKN	6 Months	None
B2JY73	N	W 4-10-12	1030	2x1-L GP			6 Months	None

Lot# J2D110430
W06433

Relinquished By RA Shepard CHPRC	Print SSU #1	Sign <i>[Signature]</i>	Date/Time APR 10 2012 1350	Received By SSU #1	Print CHPRC	Sign <i>[Signature]</i>	Date/Time APR 10 2012 1350	Matrix *
Relinquished By SSU-1	Print CHPRC	Sign <i>[Signature]</i>	Date/Time APR 11 2012 1810	Received By CHPRC	Print CHPRC	Sign <i>[Signature]</i>	Date/Time APR 11 2012 0710	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
Relinquished By CHPRC	Print CHPRC	Sign <i>[Signature]</i>	Date/Time APR 11 2012 1015	Received By CHPRC	Print CHPRC	Sign <i>[Signature]</i>	Date/Time APR 11 2012 1015	
Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By				Date/Time
FINAL SAMPLE DISPOSITION								

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-009-044				
Collector KE Hamilton CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1				
SAF No. 112-009	Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20	Ice Chest No. N/A					
Project Title 100KR4, JANUARY 2012	Logbook No. HNF-N-506 47 / 46	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A					
Shipped To (Lab) TestAmerica Incorporated, Richland	Priority: 45 Days	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.						
Sample No.	Filter	* Date	Time	No./Type Container	Activity Scan	Sample Analysis	Holding Time	Preservative
B2JYC9	N	W 4.10.12	0901	1x20-mL P	C14_LSC: C-14 (1)	MRXKP	6 Months	None
B2JYC9	N	W ↓	↓	2x1-L GP			6 Months	None

Lot# J2D110430
WD 6433

Relinquished By KE Hamilton CHPRC	Print <i>KE Hamilton</i>	Sign <i>KE Hamilton</i>	Received By SSU-1	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 10 2012 1300	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
Relinquished By SSU-1	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 11 2012 0710	
Relinquished By KE Patterson CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 11 2012 1015	
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION						Disposal Method (e.g., Return to customer, per lab procedure, used in process)	
PRINTED ON 12/14/2011						A-6004-842 (REV 2)	

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-009-048				
Collector KE Hamilton CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1				
SAF No. 112-009		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20					
Project Title 100KR4, JANUARY 2012		Logbook No. HNF-N-506 47 / 46	Ice Chest No. N/A					
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A					
Protocol CERCLA		Priority: 45 Days	Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400 5 (1990/1993)		SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Sample No.	Filter *	Date	Time	No./Type Container	Activity Scan	Sample Analysis	Holding Time	Preservative
B2JYJ2	N	4.10.12	1109	1x20-ml P	C14_LSC: C-14 (1)	MRXXQ	6 Months	None
B2JYJ2	N	↓	↓	2x1-L GP			6 Months	None

Lot# J2D110430
WD 6433

Relinquished By KE Hamilton CHPRC	Print <i>KE Hamilton</i>	Sign <i>KE Hamilton</i>	Date/Time APR 10 2012 1300	Received By SSU-1	Print SSU-1	Sign	Date/Time APR 10 2012 1300	Matrix *
Relinquished By SSU-1			Date/Time APR 11 2012 0710	Received By KC Patterson CHPRC	Print <i>KC Patterson</i>	Sign <i>KC Patterson</i>	Date/Time APR 11 2012 0710	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By KC Patterson CHPRC			Date/Time APR 11 2012 1015	Received By Lucas Velazquez	Print <i>Lucas Velazquez</i>	Sign <i>Lucas Velazquez</i>	Date/Time APR 11 2012 1015	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		



Sample Check-in List

Date/Time Received: 4/11/12 @ 1015 Container GM Screen Result: (Airlock) .04 Initials [LV]
Sample GM Screen Result (Sample Receiving) .03 Initials [LV]

Client: PGL SDG #: W06433 NA [] SAF #: I12-009 NA []

Lot Number: J2D110430

Chain of Custody # I12-009-034;038;044;048

Shipping Container ID: Hand Delivery NA [] Air Bill Number: NA []

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 4
7. Containers received: 4x vial 20; 6x LD

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

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

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

11. Samples: LV 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 [LV] No [] NA []
(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: NA

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

14. Description of anomalies (include sample numbers): N/A

CH2MHill Plateau Remediation Company		C.O.C. # I12-017-005	
Contact/Requester Karen Waters-Husted		Telephone No. 376-4650	
Sampling Origin Hanford Site		Purchase Order/Charge Code 300071ES20	
Logbook No. HNF-N-506 44 / 51		Ice Chest No. N/A	
Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A	
Priority: 45 Days		Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter	* Date	Time
B2K5F4	N	W APR 10 2012	0820
B2K5F4	N	W APR 10 2012	0820
B2K5F4	N	W APR 10 2012	0820
No/Type Container	Activity Scan	Sample Analysis	Holding Time
1x20-mL P	MAX K9		6 Months
2x4-L G/P	1129LL_SEP_LEPS_GS_LL: 1-129 (1)		6 Months
2x1-L G/P	Selenium-79		6 Months
			Preservative
			None
			None
			HNO3 to pH <2

60# J2D110432
W06433

Relinquished By AL McCINTYRE / CHPRC	Print	Signature	Date/Time APR 10 2012 1345	Received By SSU #1	Print	Signature	Date/Time APR 10 2012 1345
Relinquished By SSU #1	Print	Signature	Date/Time APR 11 2012 0710	Received By KC Patterson CHPRC	Print	Signature	Date/Time APR 11 2012 0710
Relinquished By CHPRC	Print	Signature	Date/Time APR 11 2012 1015	Received By M. W. ...	Print	Signature	Date/Time APR 11 2012 1015
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
Date/Time				Date/Time			



Sample Check-in List

Date/Time Received: 4/11/12 @ 1015 Container GM Screen Result: (Airlock) .04 Initials[LW]
Sample GM Screen Result (Sample Receiving) .03 Initials[LW]

Client: PLW SDG #: W06433 NA [] SAF #: I12-017 NA []

Lot Number: J2D110432

Chain of Custody # I12-017-005,006

Shipping Container ID: Hand Delivery Delivery NA [] Air Bill Number: NA []

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LW] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2x via 120; 4x 4LP, 4x 1LP

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

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

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

11. Samples: LW 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 [LW] No [] NA []
(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: NA

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

14. Description of anomalies (include sample numbers): NA [LW]

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-009-037	
Collector KE Hamillott CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. 112-009	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20			
Project Title 100KR4, JANUARY 2012	Logbook No. HNF-N-506 47/48	Ice Chest No. N/A			
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A			
Protocol CERCLA	Priority: 45 Days	Offsite Property No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis
B2JY66	N	W 4.11.12	1118	1x20-mL P	Activity Scan
B2JY66	N	W ↓	↓	2x1-L G/P	C14_LSC: C-14 (1) MRONK
					Holding Time
					6 Months
					6 Months
					Preservative
					None
					None

Jadiao510
wol433



Relinquished By KE Hamillott CHPRC	Print <i>KE Hamillott</i>	Sign <i>KE Hamillott</i>	Date/Time APR 11 2012 1345	Received By SSU-1	Print	Sign	Date/Time APR 11 2012 1345	Matrix *
Relinquished By SSU-1			Date/Time APR 12 2012 0710	Received By KC Patterson CHPRC	<i>KC Patterson</i>		Date/Time APR 12 2012 0710	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By KC Patterson CHPRC	<i>KC Patterson</i>		Date/Time APR 12 2012 1000	Received By <i>Waters-Husted</i>	<i>Waters-Husted</i>	<i>THR</i>	Date/Time APR 12 2012 1000	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # I12-009-042			
Collector KE Hamilton CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1			
SAF No. I12-009		Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20				
Project Title 100KR4, JANUARY 2012		Loghook No. HNF-N-506 47/49	Ice Chest No. N/A				
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A				
Protocol CERCLA		Priority: 45 Days	Offsite Property No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
BZJYB1	N	W 4.11.12	1228	1x20-mL P	Activity Scan	6 Months	None
BZJYB1	N	W ↓	↓	2x1-L GIP	C14_ISC: C-14 (1)	6 Months	None

Jad120510
W06433

Relinquished By KE Hamilton CHPRC	Print <i>Karen Hamilton</i>	Sign <i>[Signature]</i>	Date/Time APR 11 2012 1345	Received By SSU-1	Print	Sign	Date/Time APR 11 2012 1345	Matrix *
Relinquished By SSU-1			Date/Time APR 12 2012 0710	Received By KE Patterson CHPRC	<i>[Signature]</i>		Date/Time APR 12 2012 0710	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil
Relinquished By KE Patterson CHPRC	<i>[Signature]</i>	<i>[Signature]</i>	Date/Time APR 12 2012 1000	Received By Waters-Husted	<i>[Signature]</i>	<i>[Signature]</i>	Date/Time APR 12 2012 1000	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		



Sample Check-in List

Date/Time Received: 4/12/12 / 1000 Container GM Screen Result: (Airlock) 04 Initials [W]
Sample GM Screen Result (Sample Receiving) 102 Initials [B]

Client: Plw SDG #: W06433 NA [] SAF #: I 12-009 NA []

Lot Number: J20120510

Chain of Custody # I 12-009-037, 042

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

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 x vial 20; 4 x 4L

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

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

10. Matrix: A (FLT, Wipe, Solid, Soil) [B] 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 [B] No [] NA []
(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 : NA

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

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

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 112-020-012	
FM Hall CHPRC		Contact/Requester Karen Waters-Husted		Telephone No. 376-4650	
I12-020		Sampling Origin Hanford Site		Purchase Order/Charge Code 300071ES20	
2ZP1, APRIL 2012		Logbook No. HNF-N-506 45/74		Ice Chest No. N/A	
TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A	
CERCLA		Priority: 45 Days		Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time	
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter *	Date	Time	No./Type Container	Activity Scan
B2KFX4	N	4/11/12	1316	1x20-mL P	1129LL_SEP_LSC: 1-129LL
B2KFX4	N	↓	↓	2x4-L GP	6 Months
				Sample Analysis	
				Holding Time	
				Preservative	

Jad120511
W06433



Relinquished By FM Hall CHPRC	Print <i>[Signature]</i>	Date/Time 1517 APR 11 2012	Received By SSU #1	Sign <i>[Signature]</i>	Date/Time 1517 APR 11 2012	Matrix *
Relinquished By SSU #1	Print <i>[Signature]</i>	Date/Time 0710 APR 12 2012	Received By RC Patterson CHPRC	Sign <i>[Signature]</i>	Date/Time 0710 APR 12 2012	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By CHPRC	Print <i>[Signature]</i>	Date/Time 1001 APR 12 2012	Received By Lucas Velazquez	Sign <i>[Signature]</i>	Date/Time 1001 APR 12 2012	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	Print	Date/Time	Received By	Sign	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time



Sample Check-in List

Date/Time Received: 4-12-12 / 1000 Container GM Screen Result: (Airlock) .04 Initials [B]]
Sample GM Screen Result (Sample Receiving) .02 Initials [B]]

Client: Plw SDG #: W006433 NA [] SAF #: I12-020 NA []

Lot Number: J2D120511

Chain of Custody # I12-020-012

Shipping Container ID: Hand Deliv. NA [B] Air Bill Number: NA [B]

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B] No []
- 6. Number of samples received (Each sample may contain multiple bottles): 1
- 7. Containers received: 1 x Vial 20, 2 x 4LP

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

9. Samples have:
_____ tape _____ hazard labels
[B] custody seals [B] appropriate sample labels

10. Matrix:
_____ A (FLT, Wipe, Solid, Soil) [B] 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 [B] No [] NA []
(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: NA

13. Were any anomalies identified in sample receipt? Yes [SKS] No [B] SKS 4-18-12

14. Description of anomalies (include sample numbers): SKS 4-18-12 I 129LL-SEP-LSC: 1-129LL
IS NOT A TARTL METHOD.

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# W12-004-131	
Collector L.D. Wall CHPRC	Contact/Requester Karen Waters-Husted	Telephone No.	376-4650	Page 1 of 1	
SAF No. W12-004	Sampling Origin Hanford Site	Purchase Order/Charge Code	300071ES20		
Project Title RCRA, APRIL 2012	Loghook No. HNF-N-506 45 / 80	Ice Chest No.	N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A		
Protocol RCRA	Priority: 45 Days	Offsite Property No.	N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			

Sample No.	Filter	* W	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL28	N	W	APR 16 2012	0940	1x500-mL P	9223_COLIFORM: Coliform (1)	6 Hours	Na2S2O3/Cool-4C
B2KL28	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

5a016452
w06433



Relinquished By L.D. Wall CHPRC	Print S. Beck TALK	Date/Time APR 16 2012 1345	Matrix *
Relinquished By	Received By <i>[Signature]</i>	Date/Time APR 16 2012	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Received By	Date/Time	
Relinquished By	Received By	Date/Time	
Relinquished By	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (REV 2)

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W12-004-133	
Collector L.D. Wall CHPRC		Contact/Requester Karen Waters-Husted	Telephone No.	376-4650	
SAF No. W12-004		Sampling Origin Hanford Site	Purchase Order/Charge Code	300071ES20	
Project Title RCRA, APRIL 2012		Logbook No. HNF-N-506 45/80	Ice Chest No.	N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A	
Protocol RCRA		Priority: 45 Days	Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis
B2KL48	N	APR 16 2012	1043	1x500-mL P	9223_COLLIFORM: Coliform (1)
B2KL48	N	W ↓	↓	1x20-mL P	Activity Scan
					MR 148
					Preservative Na2S2O3/Cool~4C
					Holding Time 6 Hours
					6 Months
					None

520160452
W006433

Relinquished By L.D. Wall CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 16 2012 1345	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 16 2012 1345	Matrix #
Relinquished By			Date/Time APR 16 2012 1345	Received By			Date/Time	S = Soil
Relinquished By			Date/Time	Received By			Date/Time	SE = Sediment
Relinquished By			Date/Time	Received By			Date/Time	SO = Solid
Relinquished By			Date/Time	Received By			Date/Time	SL = Sludge
Relinquished By			Date/Time	Received By			Date/Time	W = Water
Relinquished By			Date/Time	Received By			Date/Time	O = Oil
Relinquished By			Date/Time	Received By			Date/Time	A = Air
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		DS = Drum Solids
								DJL = Drum Liquids
								T = Tissue
								WI = Wipe
								L = Liquid
								V = Vegetation
								X = Other

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# W12-004-134	
Collector D.J. Woehle CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. W12-004		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title RCRA, APRIL 2012		Logbook No. HNF-N-50644 / 55	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol RCRA		Priority 45 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material, at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Site: Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis
B2KL58	N	W 4/19/12	1230	1x500-mL P	9223_COLIFORM: Coliform (1)
B2KL58	N	W 4/19/12	1230	1x20-mL P	Activity Scan
		520160452 W06433		774147 454-15-12 MR144	
				Holding Time	Preservative
				6 Hours	Na2S2O3/Cool-4C
				6 Months	None

Relinquished By D.J. Woehle CHPRC	Print M. J. Hubbell	Sign M. J. Hubbell	Date/Time APR 16 2012 1345	Received By J. Beck	Print J. Beck	Sign J. Beck	Date/Time APR 16 2012 1345	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil
Relinquished By			Date/Time	Received By			Date/Time	SE = Sediment
Relinquished By			Date/Time	Received By			Date/Time	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
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

A-6004-842 (REV 2)

PRINTED O 4/6/2012

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W12-004-135			
Collector L.D. Wall CHPRC		Contact/Requester Karen Waters-Husted	Telephone No.	Page 1 of 1			
SAF No. W12-004		Sampling Origin Hanford Site	Purchase Order/Charge Code	300071ES20			
Project Title RCRA, APRIL 2012		Logbook No. HNF-N-506 45/80	Ice Chest No.	N/A			
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A			
Protocol RCRA		Priority: 45 Days	Offsite Property No.	N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sample No.	Filter	Date	Time	Qty/Type Container	Sample Analysis	Holding Time	Preservative
B2KL68	N	APR 16 2012	1135	1x500-mL P	9223_COLIFORM: Coliform (1)	6 Hours	Na2S2O3/Cool~4C
B2KL68	N	APR 16 2012	↓	1x20-mL P	Activity Scan	6 Months	None

520160452
W06433

Relinquished By L.D. Wall CHPRC	Date/Time 1345 APR 16 2012	Received By J. P. Beck J. Beck	Date/Time 1345 APR 16 2012	Print	Sign
Relinquished By	Date/Time	Received By	Date/Time	Print	Sign
Relinquished By	Date/Time	Received By	Date/Time	Print	Sign
Relinquished By	Date/Time	Received By	Date/Time	Print	Sign
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Date/Time	

Matrix *

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

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# W12-004-136				
Collector D.J. Woehle CHPRC		Contract/Requester Karen Waters-Husted		Telephone No. 376-4650				
SAF No. W12-004		Sampling Origin Hanford Site		Purchase Order/Charge Code 30007IES20				
Project Title RCRA, APRIL 2012		Logbook No. HNF-N-506 44 / SS		Ice Chest No. N/A				
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A				
Protocol RCRA		Priority: 45 Days		Offsite Property No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)								
SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.								
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL78	N	W	4/16/12	0900	1x500-mL P	9223_COLIFORM: Coliform (1)	6 Hours	Na2S2O3/Cooh-4C
B2KL78	N	W	4/16/12	0900	1x20-mL P	Activity Scan	6 Months	None

520160452
W004433

Relinquished By D.J. Woehle CHPRC	Print <i>DJ Woehle</i>	Sign <i>DJ Woehle</i>	Date/Time APR 16 2012 1345	Received By <i>Janebae Brock-Taylor</i>	Print <i>Janebae Brock-Taylor</i>	Sign <i>Janebae Brock-Taylor</i>	Date/Time APR 16 2012 1345
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time	

A-6004-842 (REV 2)

PRINTED O 4/6/2012

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# W12-004-137
Collector D.J. Woehle CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. W12-004	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title RCRA, APRIL 2012	Logbook No. HNF-N-506 44/55	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol RCRA	Priority: 45 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL79	N	W	4/14/12	1120	1x500-ml P	9223_COLIFORM: Coliform (1)	6 Hours	Na2S2O3/Coob-4C
B2KL79	N	W	4/14/12	1120	1x20-ml P	Activity Scan	6 Months	None

SAD160452
W06433

Relinquished By D.J. Woehle CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 16 2012 05:15	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time APR 16 2012 05:15	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	



Sample Check-in List

Date/Time Received: 4-16-12 / 1345 Container GM Screen Result: (Airlock) .03 Initials [B]
Sample GM Screen Result (Sample Receiving) .02 Initials [B]

Client: [Handwritten] SDG #: 606433 NA [] SAF #: W12-004 NA []

Lot Number: JAD160452

Chain of Custody # W12-004-131, 133, 134, 135, 136, 137

Shipping Container ID: Hand Deliv. NA [B] Air Bill Number: NA [B]

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B] No []
6. Number of samples received (Each sample may contain multiple bottles): 6
7. Containers received: 6 x 500 mL

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

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

10. Matrix: A (FLT; Wipe, Solid, Soil) [B] 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 [B] No [] NA [B] SKS 4-18-12
(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: NA

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

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

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# W12-003-067
Collector: DJ Sparks CHERC		Contact/Requester: Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1
SAF No. W12-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 30007IES20		
Project Title: RCRA, MARCH 2012	Logbook No. HNFN-506 44 / 52	Ice Chest No. N/A		
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol: RCRA	Priority: 45 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1995)				
SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2K4B6	N	W	4.13.12	0830	1x20-mL P	Activity Scan	6 Months	None
B2K4B6	N	W			1x4-L G/P	GAMMALL_GS: List-1 (9) MB19LF	6 Months	HNO3 to pH <2


 J2D160469
 J2D160433

Relinquished By DJ Sparks CHERC	Date/Time APR 13 2012 1400	Received By SSU#1	Date/Time APR 13 2012 1400	Print	Sign	Date/Time APR 13 2012 1400	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By SSU#1	Date/Time APR 16 2012 0745	Received By KC Patterson CHERC	Date/Time APR 16 2012 0745			Date/Time APR 16 2012 0745	
Relinquished By KC Patterson CHERC	Date/Time APR 16 2012 1130	Received By J. Bick Jacob TALL	Date/Time APR 16 2012 1130			Date/Time APR 16 2012 1130	
Relinquished By	Date/Time	Received By	Date/Time			Date/Time	
Disposal Method (e.g., Return to customer, per lab procedure, used in process)							Disposed By
FINAL SAMPLE DISPOSITION							Date/Time

A-6004-842 (REV 2)

PRINTED O 4/3/2012



Sample Check-in List

Date/Time Received: 4-16-12 / 1130 Container GM Screen Result: (Airlock) .07 Initials [B]
Sample GM Screen Result (Sample Receiving) .04 Initials [B]

Client: Plow SDG #: W06433 NA [] SAF #: W12-003 NA []

Lot Number: J20160469

Chain of Custody # W12-003-067

Shipping Container ID: hand deliv NA [B] Air Bill Number: NA [B]

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B] No []
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1 x 20; 1 x 4LP

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

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

10. Matrix: A (FLT, Wipe, Solid, Soil) [B] 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 [B] No [] NA []
(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: NA

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

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

CH2M Hill Plateau Remediation Company		C.O.C.# S12-003-129	
Project Title: SURV, MARCH 2012		Page 1 of 1	
Collector: DJ Sparks CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650	
SAF No.: S12-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 30007IES20	
Logbook No.: HNF-N-506 44/52	Ice Chest No.: N/A		
Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A		
Priority: 45 Days	Offsite Property No.: N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 3400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter	No/Type Container	Sample Analysis
B2K6V0	N	1x20-mL P	Activity Scan
B2K6V0	N	2x4-L G/P	1129LL_SEP_LEPS_GS_LL: 1-129 (1) MR1915
		Time	Holding Time
		0830 ↓	6 Months
			6 Months
			Preservative

J2D160470
W06433



Relinquished By: DJ Sparks CHPRC	Date/Time: APR 13 2012 1400	Received By: SSU #1	Date/Time: APR 13 2012 1400	Sign:	Print:	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
Relinquished By: SSU #1	Date/Time: APR 16 2012 0741	Received By: KC Patterson	Date/Time: APR 16 2012 0745	Sign:	Print:	
Relinquished By: KC Patterson	Date/Time: APR 16 2012 1130	Received By: S. Boxer of Beck-TALC	Date/Time: APR 16 2012 1130	Sign:	Print:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sign:	Print:	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time



Sample Check-in List

Date/Time Received: 4-16-12 | 1130 Container GM Screen Result: (Airlock) .07 Initials [B]]
Sample GM Screen Result (Sample Receiving) .04 Initials [B]]

Client: Plw SDG #: W06433 NA [] SAF #: S12-003 NA []

Lot Number: J20160470

Chain of Custody # S12-003-129

Shipping Container ID: hand deliv. NA [B] Air Bill Number: NA [B]

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

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

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B]] No []
- 6. Number of samples received (Each sample may contain multiple bottles): 1
- 7. Containers received: 1x vial 20; 1x 4-16-12 2x 4LP

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

9. Samples have:
_____ tape _____ hazard labels
[B] custody seals [B] appropriate sample labels

10. Matrix:
_____ A (FLT, Wipe, Solid, Soil) [B] 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 [B]] No [] NA []
(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 : NA

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

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

CH2M Hill Plateau Remediation Company		C.O.C.# W12-004-139	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector	AL MCINTYRE / CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	W12-004	Telephone No.	376-4650
Project Title	RCRA, APRIL 2012	Purchase Order/Charge Code	30007IES20
Shipped To (Lab)	TestAmerica Incorporated, Richland	Ice Chest No.	N/A
Protocol	RCRA	Bill of Lading/Air Bill No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Offsite Property No.	N/A
SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KLB5	N	APR 17 2012	0904 *	1x500-mL P	9223_COLIFORM: Colliform (1)	6 Hours	Na2S2O3/Cool-4C
B2KLB5	N	W	1	1x20-mL P	Activity Scan	6 Months	None



SDG# 466434 SKS 4/18/12
 LOT# JAD170416
 Report: 6/1/12

* 9:04 Verified Sampled Time on the Bottle
 SKS 5/7/12

Relinquished By AL MCINTYRE / CHPRC	Sign <i>[Signature]</i>	Date/Time APR 17 2012 0915	Received By BE Briggs	Print BeBriggs	Sign <i>[Signature]</i>	Date/Time APR 17 2012 0915	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By BE Briggs	Sign <i>[Signature]</i>	Date/Time 4/17/12 0950	Received By Lucas Williams	Print Lucas Williams	Sign <i>[Signature]</i>	Date/Time 4/17/12 0950	
Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time	
Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By				Date/Time

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W12-004-138	
						Page 1 of 1	
Collector	KC Patterson	Contact/Requester	Karen Waters-Husted		Telephone No.	376-4650	
SAF No.	CHPRC W12-004	Sampling Origin	Hanford Site		Purchase Order/Charge Code	300071ES20	
Project Title	RCRA, APRIL 2012	Logbook No.	HNF-N-506 47/53		Ice Chest No.	N/A	
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE		Bill of Lading/Air Bill No.	N/A	
Protocol	RCRA	Priority:	45 Days		Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time	Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL95	N	W APR 17 2012	0819	1x500-mL P	9223_COLIFORM: Coliform (1)	6 Hours	Na2S2O3/Cool-4C
B2KL95	N	W	1	1x20-mL P	Activity Scan	6 Months	None

SDG # ~~W06443~~ W064433 SKS 4-18-12
 LOT # JAD170416
 Report: W12

Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	Date/Time	Matrix *
KC Patterson			BERNGGS	BeBriggs		APR 17 2012 0915	APR 17 2012 0915	S = Soil, DS = Drum Solids, DL = Drum Liquids, SE = Sediment, T = Tissue, SO = Solid, WI = Wipe, SL = Sludge, W = Water, L = Liquid, O = Oil, A = Air, X = Other
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	Date/Time	
BE Briggs	BeBriggs		Lucas Velazquez			4/17/12 0950	4/17/12 0950	
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	Date/Time	
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		
						Date/Time		

A-6004-842 (REV 2)



Sample Check-in List

Date/Time Received: 4/17/12 @ 0950 Container GM Screen Result: (Airlock) .04 Initials [KV]
Sample GM Screen Result (Sample Receiving) .06 Initials [LV]

Client: PGW SDG #: ~~W06434~~ W06433 NA [] SAF #: W12-004 NA []
SKS 4-18-12

Lot Number: J20170416

Chain of Custody # W12004-139, 138

Shipping Container ID: Hand Delivery NA [X] Air Bill Number: NA [X]

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

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal [X]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [X]
3. Cooler temperature: 0.5 C NA []
4. Vermiculite/packing materials is NA [] Wet [] Dry [X]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [X] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 vial; 2 x 500ml

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

9. Samples have:
tape W hazard labels
LV custody seals LV appropriate sample labels

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

11. Samples:
SKS 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 [X] No [] NA []
(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 : NA

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

14. Description of anomalies (include sample numbers): NA [X]

Sample Preparation/Analysis
 Balance Id: 1120403183
 Pipet #: _____
 Sep1 DT/Tm Tech: _____
 Sep2 DT/Tm Tech: _____
 Prep Tech: ,RichardsonB

384868, CH2M Hill Plateau Remediation Company
 AW Gamma Prp GAM001
 TA Gamma by HPGE
 5I CLIENT: HANFORD

Batch: 2111066 WATER pCi/L
 SEQ Batch, Test: None All Tests: 2111066 AWTA, PM, Quote: SS, 57671

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MR19F-1-AA	2000.20g,in		2000.20g							618	0720	M/14/12	
J2D160469-1-SAMP													
04/13/2012 08:30													
2 MR19F-1-AC-X	2000.20g,in		2000.20g							614	1413	4/28/12 WJH	
J2D160469-1-DUP													
04/13/2012 08:30													
3 MR4VA-1-AA-B	2000.50g,in		2000.50g							65	0721	4/28/12	
J2D200000-66-BLK													
04/20/2012 13:22 pd													
4 MR4VA-1-AC-C	2001.40g,in		2001.40g							614	0721		
J2D200000-66-LCS													
04/20/2012 13:22 pd													

Comments: Ph2o Dup not paired Recount on different detector
 H2o/12

All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

MR19F1AA-SAMP Constituent List:

Constituent	RDL	LCL	UCL	RPD	PCi/L	RDL	LCL	UCL	RPD	PCi/L	RDL	LCL	UCL	RPD
CO-60	0.00E+00													
CS-137	6.00E+00	70	130	20	130	6.00E+00	70	130	20	130	6.00E+00	70	130	20
EU-154	0.00E+00													
K-40	0.00E+00													
MR4VA1AA-BLK	0.00E+00													
CO-60	0.00E+00													

Test/America Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cooktailled Added

Prep_SamplePrep v4.8.59

4/24/2012 9:59:38 AM

Sample Preparation/Analysis

Balance Id:1120403183

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #:

AnalytDueDate: 06/01/2012

Sep1 DT/Tm Tech:

Batch: 2111066

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RichardsonB

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acified)	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:
CS-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	CS-137DA	RDL:6.00E+00	pCi/L	LCL:	LCL:	UCL:	RPD:	
EU-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	EU-155	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	RPD:	
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	SB-125	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	RPD:	

MR4VALAC-LCS:

CS-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	CS-137DA	RDL:15	pCi/L	LCL:70	LCL:130	UCL:130	RPD:20	
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	LCL:130	UCL:130	RPD:20	
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	LCL:130	UCL:130	RPD:20	
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20								

MR19F1AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B
MR4VALAA-BLK:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B
MR4VALAC-LCS:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B

5/2/2012 1:25:05 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2011, 5/7/2012, Batch: '2111066', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2111066				
AC	Rev1C	RichardsonB	4/24/2012 9:54:36	
SC		davilan	IsBatched 4/20/2012 1:24:40 PM	ICOC_RADCALC v4.8.49
SC		RichardsonB	InPrep 4/24/2012 9:54:36 AM	RL-PRP-004 REV. 2
SC		LoeberL	Prep2C 4/27/2012 11:26:03 AM	RL-GAM-001 REV. 2
SC		HiattC	InCnt1 4/27/2012 11:29:46 AM	RL-CI-007 REV. 2
SC		DawkinsO	CalcC 4/28/2012 8:58:11 PM	RL-CI-007 REV. 2
SC		nortonj	Rev1C 5/2/2012 1:24:50 PM	RL-DR-001 Rev 2
AC		LoeberL	4/27/2012 11:26:03	
AC		HiattC	4/27/2012 11:29:46	
AC		DawkinsO	4/28/2012 8:58:11 PM	
AC		nortonj	5/2/2012 1:24:50 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

I

PGW

4/30/2012 2:35:51 PM		Sample Preparation/Analysis		Balance Id:1120482733									
384868, CH2M Hill Plateau Remediation Company		BN I-129 Prp/Sep GAM002		Pipet #:									
Pacific Northwest National Lab		TB Gamma by LEPD		Sep1 DT/Tm Tech:									
AnalyteDueDate: 06/01/2012		51 CLIENT: HANFORD		Sep2 DT/Tm Tech:									
Batch: 2111067		WATER		Prep Tech: ,HoganH									
SEQ Batch, Test: None		pCi/L		PM, Quote: SS, 57671									
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MRXJ8-1-AA	3855.60g.in		3855.60g		ITA11808			31.7mg	200	L4	0316		4/20/12AS
J2D110427-1-SAMP					03/14/12								
04/10/2012 07:10			AmiRec: 1XVIAL20,2X4LP		#Containers: 3				Scr:	Alpha: 8.07E-05 uCi/Sa			Beta: -2.86E-04 uCi/Sa
2 MRXJ8-1-AC-X	3842.30g.in		3842.30g		ITA11809			35.4mg	200	L5	0317		
J2D110427-1-DUP					03/14/12								
04/10/2012 07:10			AmiRec: 1XVIAL20,2X4LP		#Containers: 3				Scr:	Alpha: 8.07E-05 uCi/Sa			Beta: -2.86E-04 uCi/Sa
3 MRXKL-1-AA	3845.80g.in		3845.80g		ITA11810			37.6mg	200	L4	0804		5/11/12 m
J2D110427-2-SAMP					03/14/12								
04/10/2012 11:05			AmiRec: 1XVIAL20,2X4LP		#Containers: 3				Scr:	Alpha: 5.79E-04 uCi/Sa			Beta: 2.63E-03 uCi/Sa
4 MRXK9-1-AA	3825.10g.in		3825.10g		ITA11811			35.9mg	200	L5	0856		
J2D110432-1-SAMP					03/14/12								
04/10/2012 08:20			AmiRec: 1XVIAL20,4XLP,4X4LP		#Containers: 5				Scr:	Alpha: -1.07E-03 uCi/Sa			Beta: 1.36E-03 uCi/Sa
5 MRXLV-1-AA	3858.80g.in		3858.80g		ITA11812			34.9mg	200	L4	1223		5/11/12 m
J2D110432-2-SAMP					03/14/12								
04/10/2012 12:42			AmiRec: 1XVIAL20,4XLP,4X4LP		#Containers: 5				Scr:	Alpha: 3.59E-03 uCi/Sa			Beta: 8.22E-04 uCi/Sa
6 MRQVM-1-AA	3893.00g.in		3893.00g		ITA11813			35.3mg	200	L5	1225		
J2D120511-1-SAMP					03/14/12								
04/11/2012 13:16			AmiRec: 1XVIAL20,2X4LP		#Containers: 3				Scr:	Alpha: -1.53E-04 uCi/Sa			Beta: 1.29E-04 uCi/Sa
7 MRT19G-1-AA	3677.30g.in		3677.30g		ITA11814			31.6mg	200	L4	1550		5/11/12 CJ H
J2D160470-1-SAMP					03/14/12								
04/13/2012 08:30			AmiRec: 1XVIAL20,2X4LP		#Containers: 3				Scr:	Alpha: 1.35E-03 uCi/Sa			Beta: -8.55E-05 uCi/Sa

Balance Id:1120482733

Sample Preparation/Analysis

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
51 CLIENT: HANFORD

AnalyteDueDate: 06/01/2012

pCi/L

Batch: 2111067
SEQ Batch, Test: None

Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:

Pipet #:

Prep Tech: ,HoganH

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	Pot or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	GR Analyst, Init/Date	Comments:
8 MRAVE-1-AA-B	3959.40g,in	3959.40g	ITA11815	03/14/12			36.5mg	200	LS	1551	5/1/12 CJH		
J2D200000-67-BLK													
04/20/2012 13:22 pd													
9 MRAVE-1-AC-C	3951.60g,in	3951.60g	ISD1409	04/02/12			34.3mg	200	L4	2001	5/1/12 CJH		
J2D200000-67-LCS													
04/20/2012 13:22 pd													

Comments:

All Clients for Batch: 384868, CHEM Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671

MEXJ81AA-SAMP	Constituent List:	RDL:	UCL:	UCL:	RPD:
I-129	RDL:0.50E+00 pCi/L	LCL:			
MRAVE1AA-BLK:					
I-129	RDL:0.50E+00 pCi/L	LCL:			
MRAVE1AC-LCS:					
I-129	RDL:5 pCi/L	LCL:70	UCL:130	RPD:20	
MEXJ81AA-SAMP	Calc Info:				
MRAVE1AA-BLK:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B
MRAVE1AC-LCS:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B
	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRS: B

5/2/2012 1:32:20 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2011, 5/7/2012, Batch: '2111067', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2111067				
AC		Rev1C	HoganH 4/24/2012 9:51:19	
SC		davilan	IsBatched 4/20/2012 1:24:44 PM	ICOC_RADCALC v4.8.49
SC		HoganH	InPrep 4/24/2012 9:51:19 AM	RL-PRP-004 REV. 2
SC		DawkinsO	InCnt1 4/30/2012 4:56:17 PM	RL-CI-007 REV. 2
SC		DawkinsO	CalcC 5/2/2012 2:20:39 AM	RL-CI-007 REV. 2
SC		nortonj	Rev1C 5/2/2012 1:30:03 PM	RL-DR-001 Rev 2
AC		DawkinsO	4/30/2012 4:56:17 PM	
AC		DawkinsO	5/2/2012 2:20:39 AM	
AC		nortonj	5/2/2012 1:30:03 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

5/1/2012 8:23:45 AM **Sample Preparation/Analysis** Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company **CY Se-79 Prp PRP004, Sep LSC012** Pipet #:
 Pacific Northwest National Lab **TM Selenium-79 by Liquid Scint**
 5I CLIENT: HANFORD Sep1 DT/Tm Tech:
 5I CLIENT: HANFORD Sep2 DT/Tm Tech:
 PM, Quote: SS , 57671 Prep Tech: **RichardsonB**

Batch: 2111062 WATER pCi/L
 SEQ Batch, Test: None All Tests: 2111062 CYTM, 2111067 BNTB,
 QC Tracer
 Yield
 Dish Size
 Ppt or Geometry
 Count Time Min
 Detector Id
 Count On | Off (24hr) Circle
 CR Analyst, Init/Date
 Comments:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MRXK9-1-AC			200.20g.in	200.20g	SETA0909				50	Alpha: -1.07E-03 uCi/Sa		Beta: 1.36E-03 uCi/Sa	
J2D110432-1-SAMP					07/19/11								
04/10/2012 08:20													
2 MRXK9-1-AD-X			201.00g.in	201.00g	SETA0908					Alpha: -1.07E-03 uCi/Sa		Beta: 1.36E-03 uCi/Sa	
J2D110432-1-DUJ					07/19/11								
04/10/2012 08:20													
3 MRXLV-1-AC			204.40g.in	204.40g	SETA0910					Alpha: -1.07E-03 uCi/Sa		Beta: 1.36E-03 uCi/Sa	
J2D110432-2-SAMP					07/19/11								
04/10/2012 12:42													
4 MR4TX-1-AA-B			200.90g.in	200.90g	SETA0911					Alpha: 3.58E-03 uCi/Sa		Beta: 8.22E-04 uCi/Sa	
J2D200000-62-BLK					07/19/11								
04/20/2012 13:21 pd													
5 MR4TX-1-AD-BN													
J2D200000-62-BLK													
04/20/2012 13:21 pd													

Comments:

All Clients for Batch:
 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671

MRXK91AC-SAMP Constituent List:
 Se-79 RDL: 3.00E+01 pCi/L LCL: UCL: RPD:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis
 WO Cnt: 5
 Prep_SamplePrep v4.8.59

5/1/2012 8:23:46 AM **Sample Preparation/Analysis**

CY Se-79 Prp PRP004, Sep LSC012
 TM Selenium-79 by Liquid Scint
 5I CLIENT: HANFORD

Balance Id: _____
 Pipet #: _____

AnalytDueDate: 06/01/2012
 Batch: 2111062
 SEQ Batch, Test: None

Sep1 DT/Tm Tech: _____
 Sep2 DT/Tm Tech: _____
 Prep Tech: _____

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
MR4TX1AA-BLK: Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:								
MR4TX1AD-IBLK: Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:								
MRXX91AC-SAMP Uncert Level (#s): 2	Decay to SaDt: Y				Blk Subt.: N	Sci.Not.: Y							ODRs: B
MR4TX1AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y				Blk Subt.: N	Sci.Not.: Y							ODRs: B
MR4TX1AD-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y				Blk Subt.: N	Sci.Not.: Y							ODRs: B

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis
 WO Cnt: 5
 Prep_SamplePrep v4.8.59

5/22/2012 2:24:12 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/23/2011, 5/27/2012, Batch: '2111062', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2111062				
AC	Rev1C	RichardsonB	4/24/2012 7:45:38	
SC		davilan	IsBatched	4/20/2012 1:24:04 PM ICOC_RADCALC v4.8.49
SC		RichardsonB	InPrep	4/24/2012 7:45:38 AM RL-PRP-004 REV. 2
SC		LuksicS	Sep1C	5/18/2012 3:24:28 PM RL-LSC-012 REV. 2
SC		DawkinsO	InCnt1	5/18/2012 5:36:57 PM RL-CI-005 REV. 2
SC		HiattC	CalcC	5/22/2012 11:04:47 AM RL-CI-005 REV. 2
SC		nortonj	Rev1C	5/22/2012 2:23:56 PM RL-DR-001 Rev 2
AC		LuksicS	5/18/2012 3:24:28 PM	
AC		DawkinsO	5/18/2012 5:36:57 PM	
AC		HiattC	5/22/2012 11:04:47	
AC		nortonj	5/22/2012 2:23:56 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

35

Sample Preparation/Analysis

Balance Id: _____ Pipet #: _____

Sep1 DT/Tm Tech: _____ Sep2 DT/Tm Tech: _____

Prep Tech: _____

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
51 CLIENT: HANFORD

PM, Quote: SS, 57671

Batch: 2111065 WATER pCi/L
SEQ Batch, Test: None All Tests: 2111065 5SS3,

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MRXKM-1-AA													
J2D110430-1-SAMP													
04/10/2012 12:10													Beta: 1.65E-04 uCi/Sa
2 MRXKM-1-AC-X													
J2D110430-1-DUP													
04/10/2012 12:10													Beta: 1.65E-04 uCi/Sa
3 MRXKN-1-AA													
J2D110430-2-SAMP													
04/10/2012 10:30													Beta: 3.15E-04 uCi/Sa
4 MRXKP-1-AA													
J2D110430-3-SAMP													
04/10/2012 09:01													Beta: 4.87E-04 uCi/Sa
5 MRXKQ-1-AA													
J2D110430-4-SAMP													
04/10/2012 11:04													Beta: -2.87E-05 uCi/Sa
6 MRQVK-1-AA													
J2D120510-1-SAMP													
04/11/2012 11:18													Beta: -3.22E-05 uCi/Sa
7 MRQVL-1-AA													
J2D120510-2-SAMP													
04/11/2012 12:28													Beta: 1.07E-05 uCi/Sa

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec - Enrichment Cell, ct - Cocktailled Acided

TestAmerica Richland Wa. ISV - Insufficient Volume for Analysis Page 1 WO Cnt: 7 ICOC v4.8.49

4/20/2012 1:22:50 PM **Sample Preparation/Analysis** Balance Id: _____ Pipet #: _____

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
51 CLIENT: HANFORD

AnalytDueDate: 06/01/2012

Batch: 2111065 pCi/L

SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MR4T4-1-AA-B													
J2D200000-65-BLK													
04/20/2012 13:22 pd													Beta:
9 MR4T4-1-AC-C													
J2D200000-65-LCS													
04/20/2012 13:22 pd													Beta:
10 MR4T4-1-AD-BN													
J2D200000-65-JBLK													
04/20/2012 13:22 pd													Beta:

AmiRec: #Containers: 1

AmiRec: #Containers: 1

AmiRec: #Containers: 1

Scr: Alpha: Beta:

Scr: Alpha: Beta:

Scr: Alpha: Beta:

Comments:

All Clients for Batch:
384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671

MRXKM1AA-SAMP Constituent List:
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RED:20
MR4T41AA-BLK:
MR4T41AC-LCS:
MR4T41AD-IBLK:

MRXKM1AA-SAMP Calc Info:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MR4T41AA-BLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MR4T41AC-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktalled Added

ISV - Insufficient Volume for Analysis

WO Cnt: 10
ICOC.v4.8.49

4/20/2012 1:22:51 PM

Sample Preparation/Analysis

Balance Id: _____ Pipet #: _____

5S C-14 Prp/Sep LSC008
 S3 Carbon-14 by Liquid Scint
 51 CLIENT: HANFORD

Sep1 DT/Tm Tech: _____
 Sep2 DT/Tm Tech: _____

Prep Tech: _____

AnalyseDate: 06/01/2012
 Batch: 2111065
 SEQ Batch, Test: None

pCi/L

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:
MR4T4LAD-IBLK:													

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

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3 WO Cnt: 10
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis ICOC v4.8.49

4/30/2012 3:39:11 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/1/2011, 5/5/2012, Batch: '2111065', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2111065				
AC	Rev1C	NortonP	4/24/2012 1:09:54 PM	
SC		davilan	IsBatched	4/20/2012 1:24:34 PM ICOC_RADCALC v4.8.49
SC		NortonP	Sep1C	4/24/2012 1:09:54 PM RL-LSC-008 REV. 2
SC		HiattC	InCnt1	4/27/2012 8:58:38 AM RL-CI-005 REV. 2
SC		HiattC	CalcC	4/28/2012 11:27:05 AM RL-CI-005 REV. 2
SC		antonsonl	Rev1C	4/30/2012 3:39:02 PM RL-DR-001 Rev 2
AC		HiattC	4/27/2012 8:58:38	
AC		HiattC	4/28/2012 11:27:05	
AC		antonsonl	4/30/2012 3:39:02 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

4/19/2012 3:29:59 PM **Sample Preparation/Analysis** Balance Id: _____ Pipet #: _____

384868, CH2M Hill Plateau Remediation Company 88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 , Pacific Northwest National Lab IZ COLIFORM BY METHOD 9223

Analyte Due Date: 06/01/2012 51 CLIENT: HANFORD Sep1 DT/Tm Tech: _____
 Batch: 2110131 WATER PM, Quote: SS, 57671 Sep2 DT/Tm Tech: _____
 SEQ Batch, Test: None All Tests: 2110131 88IZ, W06433 Prep Tech: _____
 J20170416-1-SAMP J20170416-1-DUP J20190000-131-LCS

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MR2KR-1-AA J2D170416-1-SAMP 04/17/2012 09:04								
AmfRec: 1XVIAL;1X500MLP #Containers: 2 Scr: Alpha: Beta:								
2 MR2KR-1-AC-X J2D170416-1-DUP 04/17/2012 09:04								
AmfRec: 1XVIAL;1X500MLP #Containers: 2 Scr: Alpha: Beta:								
3 MR2K0-1-AA J2D170416-2-SAMP 04/17/2012 08:19								
AmfRec: 1XVIAL;1X500MLP #Containers: 2 Scr: Alpha: Beta:								
4 MR4DE-1-AA-B J2D190000-131-BLK 04/19/2012 15:29 pd								
AmfRec: #Containers: 1 Scr: Alpha: Beta:								
5 MR4DE-1-AC-C J2D190000-131-LCS 04/19/2012 15:29 pd								
AmfRec: #Containers: 1 Scr: Alpha: Beta:								

Comments:

ALL Clients for Batch:
 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

MR2KR1AA-SAMP Constituent List:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
 ISV - Insufficient Volume for Analysis

WO Cnt: 5
 ICOC v4.8.49

<p>4/19/2012 3:29:59 PM Sample Preparation/Analysis Balance Id: _____ Pipet #: _____</p> <p>88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION IZ COLIFORM BY METHOD 9223 5I CLIENT: HANFORD</p> <p>Analyte Due Date: 06/01/2012 Batch: 2110131 SEQ Batch, Test: None</p> <p>Sep1 DT/Tm Tech: _____ Sep2 DT/Tm Tech: _____ Prep Tech: _____</p>									
Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:	
MR4DE1AA-BLK:									
MR4DE1AC-LCS:									
MR2XR1AA-SAMP Calc Info:									
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
MR4DE1AA-BLK:									
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
MR4DE1AC-LCS:									
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis
 WO Cnt: 5
 ICOC v4.8.49

4/19/2012 3:29:59 PM **Sample Preparation/Analysis** Balance Id: _____ Pipet #: _____

384868, CH2M Hill Plateau Remediation Company 88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 , Pacific Northwest National Lab IZ COLIFORM BY METHOD 9223

Analyte: WATER Sep1 DT/Tm Tech: _____
 SEQ Batch, Test: None PM, Quote: SS, 57671

Batch: 2110132 W06433
 J2D160452

51 CLIENT: HANFORD

Work Order, Lot, Sample Date Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MR14J-1-AA								
J2D160452-1-SAMP 04/16/2012 09:40								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
2 MR14J-1-AC-X								
J2D160452-1-DUP 04/16/2012 09:40								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
3 MR14R-1-AA								
J2D160452-2-SAMP 04/16/2012 10:43								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
4 MR14V-1-AA								
J2D160452-3-SAMP 04/16/2012 12:30								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
5 MR147-1-AA								
J2D160452-4-SAMP 04/16/2012 11:35								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
6 MR149-1-AA								
J2D160452-5-SAMP 04/16/2012 09:00								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								
7 MR15F-1-AA								
J2D160452-6-SAMP 04/16/2012 11:20								
*AmtRec: 1XVIAL20;1X500MLP #Containers: 2								

Test/America Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis WO Cnt: 7
 ICOC v4.8.49

4/19/2012 3:29:59 PM **Sample Preparation/Analysis** Balance Id: _____ Pipet #: _____

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 IZ COLIFORM BY METHOD 9223
 5I CLIENT: HANFORD

AnalytDueDate: 06/01/2012
 Batch: 2110132
 SEQ Batch, Test: None

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MR4DF-1-AA-B J2D190000-132-BLK 04/19/2012 15:29 pd								
AmiRec: #Containers: 1						Alpha: Beta:		
9 MR4DF-1-AC-C J2D190000-132-LCS 04/19/2012 15:29 pd								
AmiRec: #Containers: 1						Alpha: Beta:		

Comments:

All Clients for Batch:
 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671

MR14J1AA-SAMP Constituent List:

MR4DF1AA-BLK:	MR4DF1AC-LCS:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
Uncert Level (#): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
 ISV - Insufficient Volume for Analysis
 WO Cnt: 9 ICOC v4.8.49