

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 76 Pages

Report Nbr: 54558

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06525	S13-012	B2N1K8	J3A160408-1	MXWAR1A	9MXWAR10	3021060
		B2N1L6	J3A160408-2	MXWAT1A	9MXWAT10	3021060
	W13-001	B2N4C6	J3A160410-1	MXWCG1A	9MXWCG10	3021059
		B2N4C7	J3A160410-2	MXWCT1A	9MXWCT10	3021059
	S13-001	B2N701	J3A160417-1	MXWD11AA	9MXWD110	3021058
		B2N702	J3A160417-2	MXWD21AA	9MXWD210	3021058
		B2N7B5	J3A160417-3	MXWD41AA	9MXWD410	3021058
		B2N7B9	J3A160417-4	MXWD51AA	9MXWD510	3021058
		B2N7R0	J3A160417-5	MXWD61AA	9MXWD610	3021060
		B2N7R0	J3A160417-5	MXWD61AC	9MXWD610	3021058
		B2N7R5	J3A160429-1	MXWHR1A	9MXWHR10	3021060
	S13-012	B2N1D3	J3A170426-1	MXWTJ1AA	9MXWTJ10	3021058
	I13-012	B2N618	J3A170427-1	MXWTK1A	9MXWTK10	3021058
	A13-001	B2N627	J3A180420-1	MXW1A1AA	9MXW1A10	3021058
		B2N633	J3A180420-2	MXWD11AA	9MXWD110	3021058

Comments:

Report Nbr: 54558

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06525	A13-001	B2N641	J3A180420-3	MXWIE1AA	9MXWIE10	3021058
		B2N643	J3A180420-4	MXWIF1AA	9MXWIF10	3021058
		B2N645	J3A180420-5	MXW1G1AA	9MXW1G10	3021058
	W13-001	B2N3W5	J3A180421-1	MXW1H1AA	9MXW1H10	3021059
		B2N3W5	J3A180421-1	MXW1H1AC	9MXW1H10	3021058
		B2N3X3	J3A180421-2	MXW1J1AA	9MXW1J10	3021059
		B2N3X3	J3A180421-2	MXW1J1AC	9MXW1J10	3021058
		B2N3X8	J3A180421-3	MXW1K1AA	9MXW1K10	3021059
		B2N3X8	J3A180421-3	MXW1K1AC	9MXW1K10	3021058
		B2N3Y3	J3A180421-4	MXW1L1AA	9MXW1L10	3021059
		B2N3Y3	J3A180421-4	MXW1L1AC	9MXW1L10	3021058

Comments:



Certificate of Analysis

TestAmerica Laboratories, Inc.

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

February 15, 2013

Attention: Scot Fitzgerald

SAF Number : S13-012, W13-001, S13-001, I13-012, A13-001
Date SDG Closed : January 17, 2013
Number of Samples : Twenty-One (21)
Sample Type : Water
SDG Number : W06525
Data Deliverable : 30-Day / Summary

CASE NARRATIVE

I. Introduction

Between January 15, 2013 and January 17, 2013, 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:

Table with 4 columns: CH2M ID#, TARL ID#, DATE OF RECEIPT, MATRIX. Lists 21 water samples with their respective IDs and receipt dates.

CH2M Hill Plateau Remediation Company  
February 15, 2013

B2N641	MXW1E	1/17/13	WATER
B2N643	MXW1F	1/17/13	WATER
B2N645	MXW1G	1/17/13	WATER
B2N3W5	MXW1H	1/17/13	WATER
B2N3X3	MXW1J	1/17/13	WATER
B2N3X8	MXW1K	1/17/13	WATER
B2N3Y3	MXW1L	1/17/13	WATER

## II. Sample Receipt

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

During the bi-weekly phone call on January 9, 2013 TARL was notified that all groundwater samples received after January 1, 2013 will have a 30 day turnaround time regardless if the chain of custodies have a turn around time that is greater than 30 days.

## 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**

Mid Level Tritium by method RL-LSC-005

## IV. Quality Control

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

QC and sample results are reported in the same units.

## V. Comments

### **Gamma Spectroscopy**

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

The LCS, batch blank, samples and sample duplicate (B2N4C6) results are within contractual requirements.

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

FEBRUARY 15, 2013

CH2M Hill Plateau Remediation Company  
February 15, 2013

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The LCS, batch blank, samples and sample duplicate (B2N627) results are within contractual requirements.

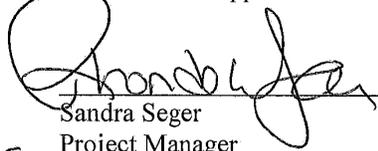
**Liquid Scintillation Counting**

Mid Level Tritium by method RL-LSC-005:

The LCS, batch blank, samples and sample duplicate (B2N7R5) 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

for

**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**

<b>Action Lev</b>	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.
<b>Batch</b>	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
<b>Bias</b>	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
<b>COC No</b>	Chain of Custody Number assigned by the Client or TestAmerica.
<b>Count Error (#s)</b>	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.
<b>Total Uncert (#s) <i>u<sub>c</sub></i> - Combined Uncertainty.</b>	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<sub>c</sub></i> , the combined uncertainty. The uncertainty is absolute and in the same units as the result.
<b>(#s), Coverage Factor</b>	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
<b>CRDL (RL)</b>	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)
<b>Lc</b>	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \sqrt{2 * (BkgndCnt / BkgndCntMin) / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$ . For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
<b>Lot-Sample No</b>	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.
<b>MDC MDA</b>	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \sqrt{((BkgndCnt / BkgndCntMin) / SCntMin) + 2.71 / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$ . For LSC methods the batch blank is used as a measure of the background variability.
<b>Primary Detector</b>	The instrument identifier associated with the analysis of the sample aliquot.
<b>Ratio U-234/U-238</b>	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.
<b>Rst/MDC</b>	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.
<b>Rst/TotUcert</b>	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.
<b>Report DB No</b>	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
<b>RER</b>	The equation Replicate Error Ratio = $(S-D) / [\sqrt{TPUs^2 + TPUD^2}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUD is the total uncertainty of the duplicate sample.
<b>SDG</b>	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
<b>Sum Rpt Alpha Spec Rst(s)</b>	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.
<b>Work Order</b>	The LIMS software assign test specific identifier.
<b>Yield</b>	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

TestAmerica Report

Lab Code: TARL

2/15/2013 7:39:03 AM

FormNbr: R    FormatType: FEAD    Version: 05    Rpt Nbr: 54558    File Name: h:\Reportdb\ledd\Fead\W06525.Edd, h:\Reportdb\ledd\Fead\W06525.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	TotU 2S	Unit	CntU 2S	MDA	TrcYield	Distilled Volume	Moisture/Solids%:	Sample On Date:	Collection Date:	Alq Size	Unit	Analy Date/Time	Act	
9MXW1A10 B2N627			MW6-SBB-A1	A13-001	W06525		1.2E-01	pCi/L	1.2E-01	2.17E-01	98.6			01/16/2013 10:39		3.819E+00	L	02/08/2013 09:16	I	
3021058 I-129	Client Analyte	15046-84-1	Result	1.11E-01		U														
9MXW1D10 B2N633			MW6-SBB-A1	A13-001	W06525		1.2E-01	pCi/L	1.2E-01	2.14E-01	97.0			01/16/2013 13:06		3.8446E+00	L	02/08/2013 13:25	I	
3021058 I-129	Client Analyte	15046-84-1	Result	7.55E-02		U														
9MXW1E10 B2N641			MW6-SBB-A1	A13-001	W06525		1.8E-01	pCi/L	1.8E-01	1.60E-01	96.5			01/16/2013 10:16		3.834E+00	L	02/08/2013 13:25	I	
3021058 I-129	Client Analyte	15046-84-1	Result	2.56E-01		U														
9MXW1F10 B2N643			MW6-SBB-A1	A13-001	W06525		3.3E-01	pCi/L	3.3E-01	2.10E-01	96.2			01/16/2013 12:20		3.8458E+00	L	02/08/2013 16:54	I	
3021058 I-129	Client Analyte	15046-84-1	Result	1.18E+00		U														
9MXW1G10 B2N645			MW6-SBB-A1	A13-001	W06525		3.4E-01	pCi/L	3.4E-01	1.52E-01	97.8			01/16/2013 13:54		3.8146E+00	L	02/08/2013 16:55	I	
3021058 I-129	Client Analyte	15046-84-1	Result	1.79E+00		U														
9MXW1H10 B2N3W5			MW6-SBB-A1	W13-001	W06525		1.1E+01	pCi/L	1.1E+01	1.96E+01				01/16/2013 14:08		2.0027E+00	L	01/25/2013 08:43	I	
3021059 BE-7	Client Analyte	13966-02-4	Result	4.99E+00		U														
3021059 CO-60	Client Analyte	10198-40-0	Result	6.79E-01		U														
3021059 CS-134	Client Analyte	13967-70-9	Result	4.06E-01		U														
3021059 CS-137	Client Analyte	10045-97-3	Result	2.57E-01		U														
3021059 EU-152	Client Analyte	14683-23-9	Result	-1.71E-01		U														
3021059 EU-154	Client Analyte	15585-10-1	Result	1.33E+00		U														

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

Lab Code: TARL

2/15/2013 7:39:03 AM

FormNbr: R    FormatType: FEAD    Version: 05    Rpt Nbr: 54558    File Name: h:\Reportdb\edd\Fead\Rad\W06525.Edd, h:\Reportdb\edd\Fead\Rad\54558.Edd

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume:	Sample On Date:	Collection Date:				
3021059	EU-155	14391-16-3	-1.91E+00	pCi/L	2.2E+00	2.2E+00	U	3.55E+00	GAMMALL_GS	01/25/2013 08:43				
3021059	K-40	13966-00-2	-2.12E+01	pCi/L	3.2E+01	3.2E+01	U	6.65E+01	GAMMALL_GS	01/25/2013 08:43				
3021059	RU-106	13967-48-1	-1.08E+01	pCi/L	1.1E+01	1.1E+01	U	1.85E+01	GAMMALL_GS	01/25/2013 08:43				
3021059	SB-125	14234-35-6	1.75E-01	pCi/L	2.7E+00	2.7E+00	U	4.85E+00	GAMMALL_GS	01/25/2013 08:43				
3021058	I-129	15046-84-1	2.37E-01	pCi/L	1.7E-01	1.7E-01	U	1.70E-01	I129LL_SEP_LEPS	02/08/2013 20:22				
9MXW1J10 B2N3X3										01/16/2013 09:37				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3021059	BE-7	13966-02-4	-6.71E+00	pCi/L	1.1E+01	1.1E+01	U	1.79E+01		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	CO-60	10198-40-0	-1.36E-01	pCi/L	1.5E+00	1.5E+00	U	2.75E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	CS-134	13967-70-9	-9.90E-01	pCi/L	1.4E+00	1.4E+00	U	2.40E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	CS-137	10045-97-3	8.73E-01	pCi/L	1.3E+00	1.3E+00	U	2.46E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	EU-152	14683-23-9	-8.31E-02	pCi/L	3.4E+00	3.4E+00	U	5.88E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	EU-154	15585-10-1	2.19E+00	pCi/L	3.8E+00	3.8E+00	U	7.36E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	EU-155	14391-16-3	-2.01E+00	pCi/L	3.3E+00	3.3E+00	U	4.98E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	K-40	13966-00-2	-8.01E+01	pCi/L	4.5E+01	4.5E+01	U	9.04E+01		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	RU-106	13967-48-1	-3.55E+00	pCi/L	1.1E+01	1.1E+01	U	1.95E+01		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021059	SB-125	14234-35-6	-5.60E-01	pCi/L	3.2E+00	3.2E+00	U	5.54E+00		GAMMALL_GS	2.001E+00	L	01/25/2013 08:44	I
3021058	I-129	15046-84-1	5.07E-02	pCi/L	8.9E-02	8.9E-02	U	1.70E-01	95.1	I129LL_SEP_LEPS	3.8738E+00	L	02/08/2013 20:23	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:				
3021059	EU-155	14391-16-3	4.32E+00	pCi/L	7.4E+00	7.4E+00	U	1.38E+01	GAMMALL_GS	01/25/2013 08:45				
3021059	K-40	10198-40-0	-2.95E-01	pCi/L	1.1E+00	1.1E+00	U	2.05E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	CS-134	13967-70-9	8.18E-02	pCi/L	1.2E+00	1.2E+00	U	2.14E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	CS-137	10045-97-3	-8.14E-02	pCi/L	1.1E+00	1.1E+00	U	1.91E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	EU-152	14683-23-9	-9.41E-01	pCi/L	2.4E+00	2.4E+00	U	4.14E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	EU-154	15585-10-1	1.69E+00	pCi/L	2.9E+00	2.9E+00	U	5.96E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	EU-155	14391-16-3	-3.93E-02	pCi/L	1.4E+00	1.4E+00	U	2.46E+00	GAMMALL_GS	01/25/2013 08:45				
3021059	K-40	13966-00-2	-2.58E+01	pCi/L	3.1E+01	3.1E+01	U	6.24E+01	GAMMALL_GS	01/25/2013 08:45				
3021059	RU-106	13967-48-1	1.95E+00	pCi/L	8.7E+00	8.7E+00	U	1.59E+01	GAMMALL_GS	01/25/2013 08:45				
9MXW1K10 B2N3X8										01/16/2013 11:43				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3021059	BE-7	13966-02-4	4.32E+00	pCi/L	7.4E+00	7.4E+00	U	1.38E+01		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	CO-60	10198-40-0	-2.95E-01	pCi/L	1.1E+00	1.1E+00	U	2.05E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	CS-134	13967-70-9	8.18E-02	pCi/L	1.2E+00	1.2E+00	U	2.14E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	CS-137	10045-97-3	-8.14E-02	pCi/L	1.1E+00	1.1E+00	U	1.91E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	EU-152	14683-23-9	-9.41E-01	pCi/L	2.4E+00	2.4E+00	U	4.14E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	EU-154	15585-10-1	1.69E+00	pCi/L	2.9E+00	2.9E+00	U	5.96E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	EU-155	14391-16-3	-3.93E-02	pCi/L	1.4E+00	1.4E+00	U	2.46E+00		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	K-40	13966-00-2	-2.58E+01	pCi/L	3.1E+01	3.1E+01	U	6.24E+01		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I
3021059	RU-106	13967-48-1	1.95E+00	pCi/L	8.7E+00	8.7E+00	U	1.59E+01		GAMMALL_GS	2.0015E+00	L	01/25/2013 08:45	I

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

Lab Code: TARL

2/15/2013 7:39:03 AM

FormNbr: R    FormatType: FEAD    Version: 05    Rpt Nbr: 54558    File Name: h:\Reportdb\ledd\Fead\VI\Rad\W06525.Edd, h:\Reportdb\ledd\Fead\VI\Rad\54558.Ed

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	TotU 2S	Qual	MDA	TrcYield	Distilled Volume	Sample On Date:	Moisture/Solids%:	Alq Size	Unit	Analy Date/Time	Act
3021059	SB-125	14234-35-6	-1.37E-01	pCi/L	2.5E+00	2.5E+00	U	4.37E+00	GAMMALL_GS	2.0015E+00	L	01/25/2013 12:56				01/25/2013 08:46	I
3021058	I-129	15046-84-1	1.28E-01	pCi/L	1.4E-01	1.4E-01	U	2.22E-01	I129LL_SEP_LEPS	3.8519E+00	L	02/11/2013 06:49				02/11/2013 06:49	I
MW6-SBB-A1 W13-001 W06525																	
3021059	BE-7	13966-02-4	-5.66E+00	pCi/L	8.7E+00	8.7E+00	U	1.42E+01	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	CO-60	10198-40-0	-5.49E-01	pCi/L	1.2E+00	1.2E+00	U	2.05E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	CS-134	13967-70-9	8.71E-01	pCi/L	1.2E+00	1.2E+00	U	2.28E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	CS-137	10045-97-3	5.90E-01	pCi/L	1.1E+00	1.1E+00	U	2.06E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	EU-152	14683-23-9	1.31E+00	pCi/L	2.4E+00	2.4E+00	U	4.46E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	EU-154	15585-10-1	-2.42E-01	pCi/L	3.4E+00	3.4E+00	U	6.28E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	EU-155	14391-16-3	-1.08E+00	pCi/L	1.6E+00	1.6E+00	U	2.72E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	K-40	13966-00-2	-2.63E+01	pCi/L	3.3E+01	3.3E+01	U	6.91E+01	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	RU-106	13967-48-1	3.15E+00	pCi/L	8.6E+00	8.6E+00	U	1.60E+01	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021059	SB-125	14234-35-6	2.05E+00	pCi/L	2.5E+00	2.5E+00	U	4.64E+00	GAMMALL_GS	1.9993E+00	L	01/25/2013 08:46				01/25/2013 08:46	I
3021058	I-129	15046-84-1	8.08E-02	pCi/L	8.5E-02	8.5E-02	U	1.69E-01	I129LL_SEP_LEPS	3.8788E+00	L	02/11/2013 06:50				02/11/2013 06:50	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	TotU 2S	Qual	MDA	TrcYield	Distilled Volume	Sample On Date:	Moisture/Solids%:	Alq Size	Unit	Analy Date/Time	Act
3021060	H-3	10028-17-8	7.35E+01	pCi/L	1.2E+01	2.7E+01	U	2.43E+01	906.0ML_H3_LSC	1.0015E-02	L	01/23/2013 07:00				01/23/2013 07:00	I
MW6-SBB-A1 S13-012 W06525																	
3021060	H-3	10028-17-8	1.29E+02	pCi/L	1.3E+01	3.1E+01	U	2.38E+01	906.0ML_H3_LSC	1.0027E-02	L	01/23/2013 07:00				01/23/2013 07:00	I
MW6-SBB-A1 S13-012 W06525																	
3021059	BE-7	13966-02-4	-4.99E+00	pCi/L	7.1E+00	7.1E+00	U	1.18E+01	GAMMALL_GS	2.001E+00	L	01/24/2013 10:55				01/24/2013 10:55	I
3021059	CO-60	10198-40-0	-7.22E-02	pCi/L	1.0E+00	1.0E+00	U	1.89E+00	GAMMALL_GS	2.001E+00	L	01/24/2013 10:55				01/24/2013 10:55	I
3021059	CS-134	13967-70-9	-1.53E-01	pCi/L	1.2E+00	1.2E+00	U	2.11E+00	GAMMALL_GS	2.001E+00	L	01/24/2013 10:55				01/24/2013 10:55	I

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

2/15/2013 7:39:03 AM

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 54558      File Name: h:\Reportdb\edt\Fead\W06525.Edd, h:\Reportdb\edt\Fead\W06525.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:
3021059	CS-137	10045-97-3	-3.87E-01	pCi/L	9.7E-01	9.7E-01	U	1.69E+00	GAMMALL_GS	01/24/2013 10:55
3021059	EU-152	14683-23-9	8.97E-01	pCi/L	2.4E+00	2.4E+00	U	4.33E+00	GAMMALL_GS	01/24/2013 10:55
3021059	EU-154	15585-10-1	-1.77E+00	pCi/L	2.7E+00	2.7E+00	U	4.58E+00	GAMMALL_GS	01/24/2013 10:55
3021059	EU-155	14391-16-3	5.16E-01	pCi/L	1.4E+00	1.4E+00	U	2.48E+00	GAMMALL_GS	01/24/2013 10:55
3021059	K-40	13966-00-2	-3.51E+01	pCi/L	3.0E+01	3.0E+01	U	6.09E+01	GAMMALL_GS	01/24/2013 10:55
3021059	RU-106	13967-48-1	4.82E-02	pCi/L	8.5E+00	8.5E+00	U	1.55E+01	GAMMALL_GS	01/24/2013 10:55
3021059	SB-125	14234-35-6	-6.40E-01	pCi/L	2.2E+00	2.2E+00	U	3.87E+00	GAMMALL_GS	01/24/2013 10:55

Batch	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3021059	BE-7	1.03E+00	pCi/L	7.5E+00	7.5E+00	U	1.36E+01		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	CO-60	-5.31E-01	pCi/L	9.5E-01	9.5E-01	U	1.64E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	CS-134	3.02E-01	pCi/L	9.9E-01	9.9E-01	U	1.88E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	CS-137	5.20E-01	pCi/L	9.1E-01	9.1E-01	U	1.76E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	EU-152	-1.35E-03	pCi/L	2.3E+00	2.3E+00	U	4.04E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	EU-154	1.98E-01	pCi/L	3.1E+00	3.1E+00	U	5.99E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	EU-155	3.05E-01	pCi/L	1.4E+00	1.4E+00	U	2.51E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	K-40	1.84E+01	pCi/L	3.4E+01	3.4E+01	U	2.00E+01		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	RU-106	-5.82E+00	pCi/L	7.7E+00	7.7E+00	U	1.27E+01		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	I
3021059	SB-125	-1.76E+00	pCi/L	2.1E+00	2.1E+00	U	3.53E+00		GAMMALL_GS	2.0003E+00	L	01/24/2013 14:27	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:
9MXWD110 B2N701			MW6-SBB-A1	S13-001	W06525					01/14/2013 13:50

Batch	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3021058	I-129	9.09E+00	pCi/L	1.1E+00	1.1E+00	U	2.66E-01	97.3	I129LL_SEP_LEPS	3.8661E+00	L	02/07/2013 17:50	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:
9MXWD210 B2N702			MW6-SBB-A1	S13-001	W06525					01/14/2013 13:50

Batch	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3021058	I-129	8.72E+00	pCi/L	1.0E+00	1.0E+00	U	2.78E-01	98.6	I129LL_SEP_LEPS	3.8628E+00	L	02/07/2013 19:05	I

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  
 rptfEadRadSummaryEdd v3.48



Friday, February 15, 2013  
 FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Feed\Rad\W06525.Edd, h:\Reportdb\edd\Feed\Rad\54558.Ed  
 Lab Code: TARL

**TestAmerica QC Blank Report**

Lab Sample Id: MXXDM1AB      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/16/2013 10:39  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 01/17/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Disfilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tof/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3021058	I-129	1.70E-01	pCi/L	2.2E-01	U	2.17E-01	93.8		I129LL_SEP_L	3.8011E+00	02/11/2013 10:15				D
BLK	15046-84-1			2.2E-01						L					

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.

Friday, February 15, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W06525.Edd, h:\Reportdb\edd\Fead\Rad\54558.Ed

Lab Sample Id: MXDXDN1AB      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/14/2013 10:59  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 01/15/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	RTyp					
	MW6-SBB-A19981								BA	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Toi/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCU/ UCL	R Typ
3021059	BE-7	-8.81E+00	pCi/L	9.8E+00	U	1.60E+01			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	13966-02-4			9.8E+00						L					
3021059	CO-60	4.35E-01	pCi/L	1.3E+00	U	2.44E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	10198-40-0			1.3E+00						L					
3021059	CS-134	2.56E-01	pCi/L	1.3E+00	U	2.34E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	13967-70-9			1.3E+00						L					
3021059	CS-137	4.92E-01	pCi/L	1.3E+00	U	2.30E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	10045-97-3			1.3E+00						L					
3021059	EU-152	-1.27E+00	pCi/L	3.5E+00	U	5.95E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	14683-23-9			3.5E+00						L					
3021059	EU-154	3.23E-01	pCi/L	3.4E+00	U	6.36E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	15585-10-1			3.4E+00						L					
3021059	EU-155	6.58E-01	pCi/L	2.9E+00	U	5.02E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	14391-16-3			2.9E+00						L					
3021059	K-40	-4.53E+00	pCi/L	1.9E+01	U	3.79E+01			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	13966-00-2			1.9E+01						L					
3021059	RJ-106	-9.18E+00	pCi/L	1.2E+01	U	1.94E+01			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	13967-48-1			1.2E+01						L					
3021059	SB-125	-3.73E-01	pCi/L	3.3E+00	U	5.75E+00			GAMMALL_GS	2.001E+00	01/25/2013 11:58				D
BLK	14234-35-6			3.3E+00						L					

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.

Friday, February 15, 2013 Lab Code: TARL  
**TestAmerica QC Blank Report**  
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W06525.Edd, h:\Reportdb\edd\Fead\Rad\154558.Ed

**Lab Sample Id:** MXXDP1AB **Sdg/Rept Nbr:** W06525 **Collection Date:** 01/15/2013 14:04  
**Client Id:** NA **Matrix:** WATER **Sample On Date:**  
**Moisture/Solids%\*:** **QC Type:** BLK **Received Date:** 01/16/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	RTyp
	MW6-SBB-A19981								BC	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
3021060	H-3	-5.04E-02	pCi/L	2.4E+01	1.2E+01	U	2.47E+01	100.0		906.0ML_H3_L	1.0028E-02	01/23/2013 07:00				D
BLK	10028-17-8										L					

**TestAmerica** 3  
 rpfFeadRadEdd 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.

Friday, February 15, 2013

**TestAmerica QC Control Sample Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\VRad\W06525.Edd, h:\Reportdb\edd\Fead\VRad\54558.Ed

Lab Sample Id: MXXDM1CS      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/16/2013 10:39  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 01/17/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	RTyp
	MW6-SBB-A19981								AZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Toi/Cnt	Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	Typ
3021058	I-129	1.03E+01	pCi/L	1.2E+00	1.2E+00		2.26E-01	94.7	1.01E+01	I129LL_SEP_L	3.874E+00	02/11/2013 10:16			70	D
BS	15046-84-1			1.2E+00					102.0		L				130	

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.

Friday, February 15, 2013 Lab Code: TARL  
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W06525.Edd, h:\Reportdb\edd\Fead\Rad\54558.Ed

**TestAmerica QC Control Sample Report**

Lab Sample Id: MXXDN1CS Sdg/Rept Nbr: W06525 Collection Date: 01/14/2013 10:59  
 Client Id: NA Matrix: WATER Sample On Date: 01/15/2013  
 Moisture/Solids%\*: BS QC Type: BS Received Date: 01/15/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	MW6-SBB-A19981								BB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	ToI/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
3021059	CO-60	3.92E+01	pCi/L	6.5E+00		2.91E+00		3.81E+01	GAMMALL_GS	2.0005E+00	01/25/2013			70	D
BS	10198-40-0			6.5E+00				102.9		L	12:15			130	
3021059	CS-137	5.23E+01	pCi/L	8.7E+00		2.55E+00		5.06E+01	GAMMALL_GS	2.0005E+00	01/25/2013			70	D
BS	10045-97-3			8.7E+00				103.4		L	12:15			130	
3021059	EU-152	7.61E+01	pCi/L	1.2E+01		6.39E+00		7.69E+01	GAMMALL_GS	2.0005E+00	01/25/2013			70	D
BS	14683-23-9			1.2E+01				98.9		L	12:15			130	

TestAmerica  
 rpfFeadRadEdd 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.

Friday, February 15, 2013

**TestAmerica QC Control Sample Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\VRad\W06525-Edd, h:\Reportdb\edd\Fead\VRad\54558.Ed

Lab Sample Id: MXXDP1CS      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/15/2013 14:04  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 01/16/2013

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3021060	H-3	8.25E+03	pCi/L	9.5E+02		2.43E+01	100.0	9.01E+03	906.0ML_H3_L	1.0012E-02	01/23/2013			70	D
BS	10028-17-8			6.1E+01				91.6		L	07:00			130	

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.

Friday, February 15, 2013

**TestAmerica QC Duplicate Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\W06525.Edd, h:\Reportdb\edd\Fead\W06525.Edd

Lab Sample Id: MXW1A1CR      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/16/2013 10:39  
 Client Id: B2N627      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 01/17/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
A13-001	MW6-SBB-A19981								AV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tof/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
3021058	I-129	1.25E-01	pCi/L	1.1E-01	U	1.47E-01	95.4		I129LL_SEP_L	3.8531E+00	02/08/2013 09:18	11.6	0.2		D
DUP	15046-84-1	1.11E-01		1.1E-01						L		20.0	3		

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.

Friday, February 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R    FormatType: FEAD    VersionNbr: 05    File Name: h:\Reportdb\edd\Fead\W06525.Edd, h:\Reportdb\edd\Fead\W06525.Edd

Lab Sample Id: MXWCG1CR    Sdg/Rept Nbr: W06525    54558    Collection Date: 01/14/2013 10:59  
 Client Id: B2N4C6    Matrix: WATER    WATER    Sample On Date:  
 Moisture/Solids%\*:    QC Type: DUP    Received Date: 01/15/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
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
3021059	BE-7	-7.29E+00	pCi/L	9.1E+00	U	1.50E+01			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	0.4		D
DUP	13966-02-4	-4.99E+00	pCi/L	9.1E+00	U	2.30E+00			GAMMALL_GS	L	18:33	20.0	3		D
3021059	CO-60	-3.48E-01	pCi/L	1.3E+00	U	2.64E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	0.3		D
DUP	10198-40-0	-7.22E-02	pCi/L	1.3E+00	U	1.93E+00			GAMMALL_GS	L	18:33	20.0	3		D
3021059	CS-134	6.69E-01	pCi/L	1.4E+00	U	5.03E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	1.		D
DUP	13967-70-9	-1.53E-01	pCi/L	1.4E+00	U	7.47E+00			GAMMALL_GS	L	18:33	20.0	3		D
3021059	CS-137	-5.26E-01	pCi/L	1.1E+00	U	3.40E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	0.2		D
DUP	10045-97-3	-3.87E-01	pCi/L	1.1E+00	U	1.96E+01			GAMMALL_GS	L	18:33	20.0	3		D
3021059	EU-152	-1.29E+00	pCi/L	3.0E+00	U	5.47E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	1.		D
DUP	14683-23-9	8.97E-01	pCi/L	3.0E+00	U	7.96E+01			GAMMALL_GS	L	18:33	20.0	3		D
3021059	EU-154	2.28E-01	pCi/L	4.0E+00	U	3.40E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	0.7		D
DUP	15585-10-1	-1.77E+00	pCi/L	4.0E+00	U	1.96E+01			GAMMALL_GS	L	18:33	20.0	3		D
3021059	EU-155	4.91E-01	pCi/L	1.9E+00	U	5.47E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	4.9	0.		D
DUP	14391-16-3	5.16E-01	pCi/L	1.9E+00	U	7.96E+01			GAMMALL_GS	L	18:33	20.0	3		D
3021059	K-40	-3.85E+01	pCi/L	3.9E+01	U	3.40E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	0.0	0.1		D
DUP	13966-00-2	-3.51E+01	pCi/L	3.9E+01	U	1.96E+01			GAMMALL_GS	L	18:33	20.0	3		D
3021059	RU-106	6.85E+00	pCi/L	1.0E+01	U	5.47E+00			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	197.2	0.9		D
DUP	13967-48-1	4.82E-02	pCi/L	1.0E+01	U	3.40E+00			GAMMALL_GS	L	18:33	20.0	3		D
3021059	SB-125	2.19E+00	pCi/L	3.0E+00	U	6.40E-01			GAMMALL_GS	1.7179E+00	01/24/2013 18:33	365.5	1.3		D
DUP	14234-35-6	-6.40E-01	pCi/L	3.0E+00	U	3.40E+00			GAMMALL_GS	L	18:33	20.0	3		D

TestAmerica

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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.

Friday, February 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W06525.Edd, h:\Reportdb\edd\Fead\Rad\54558.Ed

Lab Sample Id: MXWHR1CR      Sdg/Rept Nbr: W06525      54558      Collection Date: 01/15/2013 14:04  
 Client Id: B2N7R5      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 01/16/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S13-001	MW6-SBB-A19981								AX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3021060	H-3	5.36E+01	pCi/L	2.6E+01		2.36E+01	100.0		906.0ML_H3_L	1.001E-02	01/23/2013	33.7	1.2		D
DUP	10028-17-8	7.52E+01		1.2E+01						L	07:00	20.0	3		

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.

Lot No., Due Date: J3A180421,J3A160410; 02/18/2013  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 3021059; RGAMMA Gamma by GER  
SDG, Matrix: W06525; 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 Lee Anderson Date 1/30/13

FEBRUARY 15, 2013



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist  
RADIOCHEMISTRY  
Second Level Review

Batch Number: 3021059

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			✓
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>B. QC Samples</b>			
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?	✓		
<b>C. Other</b>			✓
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: CRDL = 600 pCi/L

Second Level Review: [Signature] Date: 1/31/13

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

Lot No., Due Date: J3A180420,J3A180421,J3A160417,J3A170426,J3A170427; 02/18/2013  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 3021058; RGAMLEPS Gamma by LEPS  
SDG, Matrix: W06525; 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 La Antonson Date 2/14/13

FEBRUARY 15, 2013



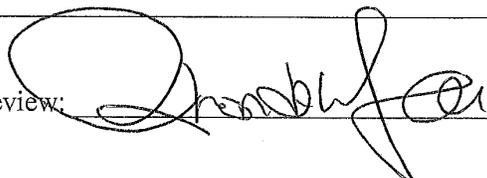
THE LEADER IN ENVIRONMENTAL TESTING

### Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 3021058

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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?	✓		
<b>C. Other</b>			
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: MDL = 0.5 pCi/L

Second Level Review:  Date: 2/14/13

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



Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

2/4/2013 11:21:21 AM

Lot No., Due Date: J3A160408, J3A160417, J3A160429; 02/18/2013  
 Client, Site: 384868; PGW 615 HANFORD HANFORD  
 QC Batch No., Method Test: 3021060; RTRITIUM Midlevel Tritium  
 SDG, Matrix: W06525; 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 P. [Signature]* Date 2-4-13

FEBRUARY 15, 2013



THE LEADER IN ENVIRONMENTAL TESTING

**Data Review Checklist**  
**RADIOCHEMISTRY**  
Second Level Review

Batch Number: 30210600

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			✓
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>B. QC Samples</b>			
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?	✓		
<b>C. Other</b>			
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: QDL = 30.0 pCi/L

Second Level Review: [Signature] Date: 2/15/13

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







Sample Check-in List

Date/Time Received: 1-15-13 / 0915 GM Screen Result: (Airlock) .4 Initials [B] (Sample Receiving) .4 Initials [B]

Client: Pbw SDG #: W06525 NA [ ] SAF #: S13-012 NA [ ]

Lot Number: JBAL60408

Chain of Custody # S13-012-199; 201

Shipping Container ID: hand deliv. 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; 2 x LP

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 N/A

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: W/A

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.# <b>W13-001-081</b>	
Project Title RCRA, JANUARY 2013		Page 1 of 1	
Collector DAVE FLOYD	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. W13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title RCRA, JANUARY 2013	Logbook No. HNF-N-506 51 / 66	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	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)			
Sample No.	Filter	* Date	Time
B2N4C6	N	W JAN 14 2013	1059
B2N4C6	N	W JAN 14 2013	↓
SPECIAL INSTRUCTIONS		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Site Wide Generator Knowledge Information Form applies.		Sample Analysis	Preservative
No/Type Container	Activity Scan	Holding Time	
1x20-mL P	GAMMALL_GS: List-1 (9)	6 Months	None
1x4-L G/P	<i>mynucle</i>	6 Months	HNO3 to pH <2

J3A160410  
W006525



J3A160410

Relinquished By DAVE FLOYD	Print 	Sign 	Date/Time JAN 14 2013 1522
Received By SSU-1	Print D.J. Woeltje	Sign CHPRC	Date/Time JAN 14 2013 0800
Relinquished By B.J. Woeltje	Print 	Sign CHPRC	Date/Time JAN 15 2013 0800
Received By B.J. Woeltje	Print B.J. Woeltje	Sign CHPRC	Date/Time JAN 15 2013 0800
Relinquished By B.J. Woeltje	Print 	Sign CHPRC	Date/Time JAN 15 2013 0915
Received By B.J. Woeltje	Print B.J. Woeltje	Sign CHPRC	Date/Time JAN 15 2013 0915

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Date/Time
PRINTED ON 11/21/2012		A-6004-842 (REV 2)

CH2M Hill Plateau Remediation Company		C.O.C.# W13-001-082	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		Page 1 of 1	
Collector	DAVE FLOYD	Contact/Requester	Karen Waters-Husted
SAF No.	W13-001	Telephone No.	376-4650
Project Title	RCRA, JANUARY 2013	Sampling Origin	Hanford Site
Shipped To (Lab)	TestAmerica Incorporated, Richland	Logbook No.	HNF-N-506.51/66
Protocol	RCRA	Method of Shipment	GOVERNMENT VEHICLE
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** 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)		Priority:	45 Days
<b>SPECIAL INSTRUCTIONS</b> Site Wide Generator Knowledge Information Form applies.		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample No.	Filter	No/Type Container	Sample Analysis
B2N4C7	N	1x20-mL P	Activity Scan
B2N4C7	N	1x4-L GP	GAMMALL_GS: List-1 (9)
		Time	Holding Time
		JAN 14 2013 059	6 Months
			6 Months
			Preservative
			None
			HNO3 to pH <2

J3A160410  
w0525

Relinquished By	DAVE FLOYD	Signature	[Signature]	Date/Time	JAN 14 2013 522	Received By	SSU-1	Signature	[Signature]	Date/Time	JAN 14 2013 522	Matrix *
Relinquished By	SSU-1	Signature	[Signature]	Date/Time	JAN 14 2013 522	Received By	D.J. Woeltle	Signature	[Signature]	Date/Time	JAN 15 2013 080	Matrix *
Relinquished By	CHPRC	Signature	[Signature]	Date/Time	JAN 15 2013 080	Received By	CHPRC	Signature	[Signature]	Date/Time	JAN 15 2013 080	Matrix *
Relinquished By	CHPRC	Signature	[Signature]	Date/Time	JAN 15 2013 0915	Received By	Barbara Richards	Signature	[Signature]	Date/Time	JAN 15 2013 0915	Matrix *
Relinquished By	CHPRC	Signature	[Signature]	Date/Time	JAN 15 2013 0915	Received By	CHPRC	Signature	[Signature]	Date/Time	JAN 15 2013 0915	Matrix *
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time						
PRINTED O 11/21/2012		A-6004-842 (REV 2)										

Sample Check-in List

Date/Time Received: 1-15-13 / 0915 GM Screen Result: (Airlock) .4 Initials [B]  
(Sample Receiving) .4 Initials [B]

Client: PBW SDG #: W06525 NA [ ] SAF #: W13-001 NA [ ]

Lot Number: J3A160410

Chain of Custody # W13-001-081; 082

Shipping Container ID: hand deliv. NA [ BW ]

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

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

Item 5 through 16 for samples. Initial appropriate response.

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

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

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

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

11. Samples:  
 are in good condition \_\_\_\_\_ are leaking  
 are broken \_\_\_\_\_ have air bubbles (Only for samples requiring no head space)  
Other N/A

12. Sample pH appropriate for analysis requested Yes  ] No [ ] NA [ ]  
(If acidification is necessary, then document sample ID, initial pH) amount of HNO<sub>3</sub> added and pH after addition on table overleaf  
RPL ID # of preservative used: N/A

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

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



CH2M Hill Plateau Remediation Company		C.O.C.# S13-001-110	
Project Title		Page 1 of 1	
Collector	SCOTT KING	Contact/Requester	Karen Waters-Husted
SAF No.	S13-001	Telephone No.	376-4650
Project Title	SURV, JANUARY 2013	Sampling Origin	Hanford Site
Shipped To (Lab)	TestAmerica Incorporated, Richland	Logbook No.	HNF-N-506 <i>36 / 50</i>
Protocol	SURV	Method of Shipment	GOVERNMENT VEHICLE
POSSIBLE SAMPLE HAZARDS/REMARKS		Priority:	45 Days
*** 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)		Bill of Lading/Air Bill No.	N/A
SPECIAL INSTRUCTIONS		Offsite Property No.	N/A
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
B2N701	N	W 01-14-13	1350
B2N701	N	W	<i>✓</i>
Sample Analysis		Holding Time	Preservative
Activity Scan		6 Months	None
I129LL_SEP_LEPS_GS_LL: I-129 (1) <i>MTWSD1</i>		6 Months	None

*J3A160417*  
  
 J3A160417

Relinquished By	SCOTT KING	Print	<i>Scott King</i>	Sign		Date/Time	JAN 14 2013	1513
Received By	<i>SSU #1</i>	Print		Sign		Date/Time	JAN 14 2013	1513
Relinquished By	D.J. Woehle	Print	<i>D.J. Woehle</i>	Sign	CHPRC	Date/Time	JAN 15 2013	0800
Received By	<i>SSU #1</i>	Print		Sign		Date/Time	JAN 15 2013	0800
Relinquished By	D.J. Woehle	Print	<i>D.J. Woehle</i>	Sign	CHPRC	Date/Time	JAN 15 2013	0915
Received By	<i>Babara Richards-Tate</i>	Print		Sign		Date/Time	JAN 15 2013	0915
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>S13-001-111</b>
				Page 1 of 1
<b>Collector</b>	<b>SCOTT KING</b>	<b>Contact/Requester</b>	Karen Waters-Husted Telephone No. 376-4650	
<b>SAF No.</b>	S13-001	<b>Sampling Origin</b>	Hanford Site Purchase Order/Charge Code 300071ES20	
<b>Project Title</b>	SURV, JANUARY 2013	<b>Logbook No.</b>	HNF-N-506 <u>3e/50</u> Ice Chest No. N/A	
<b>Shipped To (Lab)</b>	TestAmerica Incorporated, Richland	<b>Method of Shipment</b>	GOVERNMENT VEHICLE Bill of Lading/Air Bill No. N/A	
<b>Protocol</b>	SURV	<b>Priority:</b>	45 Days Offsite Property No. N/A	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>		<b>SPECIAL INSTRUCTIONS</b>		
*** 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)		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.		
<b>Sample No.</b>	<b>Filter *</b>	<b>Date</b>	<b>Time</b>	<b>No/Type Container</b>
B2N702	N	W 01/14/13	1350	1x20-ml P
B2N702	N	W 01/14/13	↓	2x4-L G/P
33A16041M W065AS				
<b>Sample Analysis</b>	<b>Holding Time</b>		<b>Preservative</b>	
Activity Scan	6 Months		None	
1129LL_SEP_LEPS_GS_LL: 1-129 (1)	6 Months		None	

<b>Relinquished By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	<b>Received By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	<b>Matrix *</b>
SCOTT KING	<i>Scott King</i>		JAN 14 2013 1513	SSU #1			JAN 14 2013 1513	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
<b>Relinquished By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	<b>Received By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
SSU #1			JAN 15 2013 0950	D.J. Woehle CHPRC			JAN 15 2013 0950	
<b>Relinquished By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	<b>Received By</b>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b>	
D.J. Woehle CHPRC		<i>D.J. Woehle</i>	JAN 15 2013 0915	Babara Richards			JAN 15 2013 0915	
<b>Relinquished By</b>	<b>Date/Time</b>	<b>Disposal Method</b>	<b>Disposed By</b>		<b>Date/Time</b>			
		(e.g., Return to customer, per lab procedure, used in process)						

CH2M Hill Plateau Remediation Company		C.O.C. # S13-001-128	
Collector SCOTT KING		Page 1 of 1	
Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-001	Purchase Order/Charge Code	300071ES20
Project Title	SURV, JANUARY 2013	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Offsite Property No.	N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)		<b>SPECIAL INSTRUCTIONS</b> 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
B2N7B5	N	01-14-13	1043
B2N7B5	N	01-13-13	↓
Sample Analysis		Activity Scan	1129LL_SEP_LEPS_GS_LL: 1-129 (1) m WUDY
Holding Time		6 Months	None
Preservative		6 Months	None

S3A160417  
W06525

Relinquished By	SCOTT KING	Print	<i>Scott King</i>	Sign		Date/Time	JAN 14 2013 1513	Received By	SSU #1	Print		Sign		Date/Time	JAN 14 2013 1513
Relinquished By	SSU #1	Print		Sign		Date/Time	JAN 15 2013 0900	Received By	D.J. Woeltje	Print	CHPRC	Sign	<i>D.J. Woeltje</i>	Date/Time	JAN 15 2013 0900
Relinquished By	D.J. Woeltje	Print	CHPRC	Sign		Date/Time	JAN 15 2013 0915	Received By	Babara Richardson	Print		Sign		Date/Time	JAN 15 2013 0915
Relinquished By		Print		Sign		Date/Time		Received By		Print		Sign		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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Date/Time
PRINTED O	11/21/2012	A-6004-842 (REV 2)

CH2M Hill Plateau Remediation Company		C.O.C.# <b>S13-001-129</b>	
Collector <b>SCOTT KING</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>S13-001</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>30007IES20</b>	
Project Title <b>SURV, JANUARY 2013</b>	Logbook No. <b>HNF-N-506 36 / 50</b>	Ice Chest No. <b>N/A</b>	
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>	Method of Shipment <b>GOVERNMENT VEHICLE</b>	Bill of Lading/Air Bill No. <b>N/A</b>	
Protocol <b>SURV</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)		<b>SPECIAL INSTRUCTIONS</b> 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 401.647.	
Sample No.	Filter	* No/Type Container	Sample Analysis
B2N7B9	N W	1x20-mL P	Activity Scan
B2N7B9	N W	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)
		Time	Holding Time
		1-14-13 1219	6 Months
		Y ↓	6 Months

S3A160414  
W06525

Relinquished By <b>SCOTT KING</b>	Print <i>Scott King</i>	Sign	Date/Time <b>JAN 14 2013 1513</b>	Received By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign	Date/Time <b>JAN 14 2013 1513</b>	Matrix *
Relinquished By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign	Date/Time <b>JAN 15 2013 0800</b>	Received By <b>D.J. Woeltje</b>	Print <i>D.J. Woeltje</i>	Sign	Date/Time <b>JAN 15 2013 0800</b>	Matrix *
Relinquished By <b>CHPRC</b>	Print <i>D.J. Woeltje</i>	Sign	Date/Time <b>JAN 15 2013 0915</b>	Received By <b>Babara Richards</b>	Print <i>Babara Richards</i>	Sign	Date/Time <b>JAN 15 2013 0915</b>	Matrix *
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
<b>FINAL SAMPLE DISPOSITION</b>				Disposed By				Date/Time

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>S13-001-147</b>	
Collector <b>Roy Shepard</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>	Page 1 of 1	
SAF No. <b>S13-001</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>30007IES20</b>			
Project Title <b>SURV, JANUARY 2013</b>	Logbook No. <b>HNF-N-506 53/16</b>	Ice Chest No. <b>N/A</b>			
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>	Method of Shipment <b>GOVERNMENT VEHICLE</b>	Bill of Lading/Air Bill No. <b>N/A</b>			
Protocol <b>SURV</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>			
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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
B2N7R0	N	W	1/14/13	1327	1x1-L P	906.0ML_H3_LSC: Mid-level Tritium (1)	6 Months	None
B2N7R0	N	W			1x20-mL P	Activity Scan	6 Months	None
B2N7R0	N	W			2x4-L G/P	1129LL_SEP_LEPS_GS_LL: 1-129 (1) m x w d s b	6 Months	None

33A160417  
w06525

Relinquished By <b>Roy Shepard</b>	Print <i>[Signature]</i>	Sign	Date/Time <b>JAN 14 2013 1500</b>	Matrix *
Received By <b>SSU #1</b>	Print	Sign	Date/Time <b>JAN 14 2013 1500</b>	S = Soil = Drum Solids
Relinquished By <b>SSU #1</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	SE = Sediment = Drum Liquids
Received By <b>D.J. Woehle</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	SO = Solid = Tissue
Relinquished By <b>D.J. Woehle</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	SL = Sludge = WI = Wipe
Received By <b>D.J. Woehle</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	W = Water = L = Liquid
Relinquished By <b>D.J. Woehle</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	O = Oil = V = Vegetation
Received By <b>D.J. Woehle</b>	Print	Sign	Date/Time <b>JAN 15 2013 0800</b>	A = Air = X = Other
FINAL SAMPLE DISPOSITION				Date/Time
Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
Dispersed By				Date/Time



Sample Check-in List

Date/Time Received: 1-15-13 | 0915 GM Screen Result: (Airlock) .4 Initials [B] (Sample Receiving) .4 Initials [B]

Client: PbW SDG #: W06525 NA [] SAF #: S13-001 NA []

Lot Number: J3A160417

Chain of Custody # S13-001-110; 111; 128; 129; 147

Shipping Container ID: Mand de Qu. NA [AW]

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): 5
7. Containers received: 5 x vial 20; 10 x 4Lp; 1 x 4p

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

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

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 [ ] [B] are broken have air bubbles (Only for samples requiring no head space) Other N/A

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: N/A

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

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







Sample Check-in List

Date/Time Received: 1-16-13 / 1110 GM Screen Result: (Airlock) 0.4 Initials [B] (Sample Receiving) 0.4 Initials [B]

Client: PbW SDG #: W06525 NA [ ] SAF #: S13-001 NA [ ]

Lot Number: J3A160429

Chain of Custody # S13-001-148

Shipping Container ID: hand deliv. 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, 1 x LP

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

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

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 Other NIA have air bubbles (Only for samples requiring no head space)

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: WJA

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

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



CH2MHHI Plateau Remediation Company		C.O.C. # S13-012-190	
Collector <i>R. Shepard</i>		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 54/16	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 SURV	Priority: 30 Days <b>PRIORITY</b>	Offsite Property No. N/A	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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"/>	
FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter *	Date	Time
B2N1D3	N	1/15/13	1108
B2N1D3	N	↓	↓
Sample Analysis		Holding Time	Preservative
Activity Scan		6 Months	None
I129LL_SEP_LEPS_GS_LL: I-129 (1) m n w t s		6 Months	None

*J3A170426*  
  
 WATERS

Relinquished By <i>R. Shepard</i>	Print	Sign	Date/Time
<i>SSU #1</i>			JAN 15 2013 1530
Relinquished By <i>L.D. Wall</i>	Print	Sign	Date/Time
<i>SSU #1</i>			JAN 16 2013 0900
Relinquished By <i>L.D. Wall</i>	Print	Sign	Date/Time
<i>SSU #1</i>			JAN 16 2013 1110
Relinquished By	Print	Sign	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		
Received By <i>S. back</i>	Print	Sign	Date/Time
<i>J. back</i>			JAN 16 2013 1110
Received By	Print	Sign	Date/Time
Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By		
FINAL SAMPLE DISPOSITION	Date/Time		



Sample Check-in List

Date/Time Received: 1-16-13 | 1110 Container GM Screen Result: (Airlock) <sup>B-1-16-13</sup> 0.4 Initials [B]
Sample GM Screen Result (Sample Receiving) 0.4 Initials [B]

Client: PGW SDG #: W06525 NA [ ] SAF #: S13-012 NA [ ]

Lot Number: J3A170426

Chain of Custody # S13-012-190

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

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

- 1. Custody Seals on shipping container intact? Yes [ ] 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; 2x 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 N/A

12. Sample pH appropriate for analysis requested Yes [B] ] No [ ] NA [B] ] B-1-16-13
(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: N/A

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. # <b>I13-012-015</b>	
Collector <b>DAVE FLOYD</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>I13-012</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>30007IES20</b>	
Project Title <b>2ZPI, JANUARY 2013</b>	Logbook No. <b>HNF-N-506.51/67</b>	Ice Chest No. <b>N/A</b>	
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>	Method of Shipment <b>GOVERNMENT VEHICLE</b>	Bill of Lading/Air Bill No. <b>N/A</b>	
Protocol <b>CERCLA</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)		<b>SPECIAL INSTRUCTIONS</b> Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter	No/Type Container	Sample Analysis
B2N618	N	1x20-ml P	Activity Scan
B2N618	N	2x4-L GIP	1129LL_SEP_LEPS_GS_LL: 1-129 (1) m twt tk
		Time	Holding Time
		1401	6 Months
		↓	6 Months
		↓	Preservative
		↓	None
		↓	None

J3A1N042N  
W0652S



Relinquished By <b>DAVE FLOYD</b>	Print <i>[Signature]</i>	Sign	Date/Time <b>JAN 15 2013 1536</b>	Received By <b>SSU-1</b>	Print	Sign	Date/Time <b>JAN 15 2013 1536</b>	Matrix *
Relinquished By <b>SSU-1</b>			<b>JAN 16 2013 0900</b>	Received By <b>L.D. Wall</b>			<b>JAN 16 2013 0900</b>	S = Soil, DS = Drum Solids, SE = Sediment, DL = Drum Liquids, SO = Solid, T = Tissue, SL = Sludge, WT = Wipe, W = Water, L = Liquid, O = Oil, V = Vegetation, A = Air, X = Other
Relinquished By <b>L.D. Wall</b>	Print <i>[Signature]</i>	Sign	Date/Time <b>JAN 16 2013 1110</b>	Received By <b>S. Beck</b>			<b>JAN 16 2013 1110</b>	
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		



Sample Check-in List

Date/Time Received: 1-16-13/1110 Container GM Screen Result: (Airlock) 0.4 Initials [B]
Sample GM Screen Result (Sample Receiving) 0.4 Initials [B]

Client: BSW SDG #: W06525 NA [ ] SAF #: 113-012 NA [ ]

Lot Number: J3A170427

Chain of Custody # 113-012-015

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
custody seals 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 NIA

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: W/A

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. # A13-001-003 Page 1 of 1	
<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			
Collector Mital White	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. A13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title LLWMA(1)-PA	Logbook No. HNF-N-506 <u>54/17</u>	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 Other	Priority: 45 Days	Offsite Property No. N/A	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)		<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647. FY12 and FY13 samples cannot be in the same SDG.	
Sample No.	Filter	Date	Time
B2N627	N	1-16-13	1039
B2N627	N	↓	↓
Sample Analysis		Holding Time	Preservative
Activity Scan		6 Months	None
1129LL_SEP_LEPS_GS_LL: 1-129 (1) <u>MYWJA</u>		6 Months	None

J3A180420  
wdu525



Relinquished By Mital White	Print Mital White	Sign Mital White	Date/Time JAN 16 2013 1400	Received By SSU #1	Print SSU #1	Sign SSU #1	Date/Time JAN 16 2013 1400	Matrix *
Relinquished By SSU #1	Print SSU #1	Sign SSU #1	Date/Time JAN 17 2013 0800	Received By L.D. Wall CHPRC	Print L.D. Wall	Sign L.D. Wall	Date/Time JAN 17 2013 0800	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 L.D. Wall CHPRC	Print L.D. Wall	Sign L.D. Wall	Date/Time JAN 17 2013 1050	Received By J. Beck	Print J. Beck	Sign J. Beck	Date/Time JAN 17 2013 1050	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	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
PRINTED O 11/21/2012				A-6004-842 (REV 2)				

CH2M Hill Plateau Remediation Company		C.O.C.# A13-001-006 Page 1 of 1	
<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			
Collector	<i>White</i>	Contact/Requester	Karen Waters-Husted
SAF No.	A13-001	Sampling Origin	Hanford Site
Project Title	LLWMA(1)-PA	Logbook No.	HNF-N-506 <i>54/17</i>
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE
Protocol	Other	Priority:	45 Days
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)		<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647. FY12 and FY13 samples cannot be in the same SDG.	
Sample No.	Filter	Date	Time
B2N633	N	W 1-16-13	1306
B2N633	N	W	↓
		No/Type Container	Sample Analysis
		1x20-mL P	Activity Scan
		2x4-L GIP	1129LL_SEP_LEPS_GS_LL: 1-129 (1) <i>in XWD</i>
		Holding Time	Preservative
		6 Months	None
		6 Months	None

*SSU #1*  
*W06SAS*

Relinquished By	<i>White</i>	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Relinquished By	<i>White</i>	<i>White</i>	<i>White</i>	JAN 16 2013 1400	<i>SSU #1</i>			JAN 16 2013 1400	S = Soil, DS = Drum Solids
Relinquished By	<i>SSU #1</i>			JAN 17 2013 0800	L.D. Wall CHPRC			JAN 17 2013 0800	DL = Drum Liquids
Relinquished By	L.D. Wall CHPRC	<i>White</i>	<i>White</i>	JAN 17 2013 1050	<i>J. Beck</i>	<i>J. Beck</i>	<i>Tau</i>	JAN 17 2013 1050	T = Tissue
Relinquished By									WI = Wipe
									L = Liquid
									V = Vegetation
									X = Other
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time		

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>A13-001-010</b> Page 1 of 1	
Collector Roy Shepard	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650			
SAF No. A13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20			
Project Title LLWMA(1)-PA	Logbook No. HNF-N-50651 / 68	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 Other	Priority: 45 Days	Offsite Property No. N/A			
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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. FY12 and FY13 samples cannot be in the same SDG.			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No. B2N641	Filter N	* W	Date 1-16-13	Time 1016	No/Type Container 1x20-mL P
B2N641	N	W	1-16-13	1016	Activity Scan 1129LL_SEP_LEPS_GS_LL: 1-129 (1) m xw i e
			Sample Analysis	Holding Time 6 Months	Preservative None
				6 Months	None

33A180420  
w06525

Relinquished By Roy Shepard	Date/Time JAN 16 2013 1515	Received By SSU #7	Date/Time JAN 16 2013 1515	Sign [Signature]	Matrix # DS = Drum Solids DL = Drum Liquids T = Tissue WT = Wipe L = Liquid V = Vegetation X = Other
Relinquished By SSU #4	Date/Time JAN 17 2013 0800	Received By LD. Wall CHPRC	Date/Time JAN 17 2013 0800	Sign [Signature]	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By LD. Wall CHPRC	Date/Time JAN 17 2013 1050	Received By J. Boul J. Boul	Date/Time JAN 17 2013 1050	Sign [Signature]	
Relinquished By	Date/Time	Received By	Date/Time	Sign	Matrix #
<b>FINAL SAMPLE DISPOSITION</b> Disposal Method (e.g., Return to customer, per lab procedure, used in process)					
				Disposed By	Date/Time

CH2MHill Plateau Remediation Company		C.O.C.# A13-001-011	
Collector Roy Shepard		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. A13-001	Project Title LLWMA(1)-PA	Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20
Shipped To (Lab) TestAmerica Incorporated, Richland	Logbook No. HNF-N-506 51 / 68	Method of Shipment GOVERNMENT VEHICLE	Ice Chest No. N/A
Protocol Other	Priority 45 Days	Bill of Lading/Air Bill No. N/A	Offsite Property No. N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> 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. FY12 and FY13 samples cannot be in the same SDG.	
Sample No.	Filter	* Date	Time
B2N643	N	W 1-16-13	1220
B2N643	N	W 1-16-13	1220
Sample Analysis		Holding Time	Preservative
129LL_SEP_LEPS_GS_LL: 1-129 (1) m tw JIF		6 Months	None
		6 Months	None

33A180420  
W06525

Relinquished By Roy Shepard	Print	Sign	Date/Time
			JAN 16 2013 1515
Relinquished By SSU #4	Print	Sign	Date/Time
			JAN 17 2013 0800
Relinquished By L.D. Wall CHPRC	Print	Sign	Date/Time
			JAN 17 2013 1050
Relinquished By	Print	Sign	Date/Time
			JAN 17 2013 1050
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Date/Time

CH2M Hill Plateau Remediation Company		C.O.C.# A13-001-012	
Collector Roy Shepard		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. A13-001		Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20
Project Title LLWMA(1)-PA		Logbook No. HNF-N-506 51 / 68	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 Other		Priority: 45 Days	Offsite Property No. N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)			
<b>SPECIAL INSTRUCTIONS</b> 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. FY12 and FY13 samples cannot be in the same SDG.			
Sample No.	Filter	* Date	Time
B2N645	N	W 1-16-13	1354
B2N645	N	W 1-16-13	1354
No/Type Container		Sample Analysis	Holding Time
1x20-mL P		Activity Scan	6 Months
2x4-L G/P		I129LL_SEP_LEPS_GS_LL: I-129 (1) M X W J L S	6 Months
Preservative		None	

33A180420  
W06525

Relinquished By Roy Shepard	Print	Sign	Date/Time	Received By SQU #1	Print	Sign	Date/Time	Matrix *
			JAN 16 2013 1515				JAN 16 2013 1515	S = Soil DS = Drum Solids
Relinquished By SQU #1			JAN 17 2013 0800	Received By L.D. Wall CHPPC			JAN 17 2013 0800	DL = Drum Liquids
			JAN 17 2013 1550	Received By S. Beck JACK TALL			JAN 17 2013 1550	T = Tissue
Relinquished By L.D. Wall CHPPC			JAN 17 2013 1550	Received By			JAN 17 2013 1550	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		

FEBRUARY 15, 2013



Sample Check-in List

Date/Time Received: 1-17-13/1050 Container GM Screen Result: (Airlock) 0.6 Initials [B]
Sample GM Screen Result (Sample Receiving) 0.4 Initials [B]

Client: P6W SDG #: W06525 NA [ ] SAF #: A13-001 NA [ ]

Lot Number: J3A180420

Chain of Custody # A13-001-006; 010; 011; 012; 003

Shipping Container ID: Arrnd deliv. NA [PW] 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): 5
7. Containers received: 5 x vial 20; 10 x 4 L

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) [B] 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 N/A

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: W/A

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

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

FEBRUARY 15, 2013



15. Sample Location, Sample Collector Listed on COC? \*  
\*For documentation only. No corrective action needed.

Yes  No  1/17/13

16. Additional Information: N/A

Client/Courier denied temperature check.

Client/Courier unpack cooler.

Sample Custodian: Shorblyer for Julie Book Date: 1/17/13

Client Informed on N/A by N/A Person contacted N/A

No action necessary; process as is

Project Manager: Shorblyer Date: 1/17/13

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
<del>Table content is crossed out with a large diagonal line and handwritten 'N/A' in both halves.</del>							

J3A 180420

Paw 1/17/13

LS-023, Rev. 15, 07/11

See over for additional information.

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>W13-001-075</b>				
Collector <b>SCOTT KING</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>	Page 1 of 1				
SAF No. <b>W13-001</b>		Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>					
Project Title <b>RCRA, JANUARY 2013</b>		Logbook No. <b>HNF-N-506 36/53</b>	Ice Chest No. <b>N/A</b>					
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>		Method of Shipment <b>GOVERNMENT VEHICLE</b>	Bill of Lading/Air Bill No. <b>N/A</b>					
Protocol <b>RCRA</b>		Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>					
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** 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)								
<b>SPECIAL INSTRUCTIONS</b> Hold Time    Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies.								
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2N3W5	N	W	01-16-13	1408	1x20-mL P	Activity Scan	6 Months	None
B2N3W5	N	W	↓	↓	1x4-L G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B2N3W5	N	W	01-16-13	1408	2x4-L G/P	1129LL_SEP_LEPS_GS_LL: 1-129 (1) MNWJIA	6 Months	None

J3A180421  
W06525



Relinquished By <b>SCOTT KING</b>	Print <i>Scott King</i>	Sign	Date/Time <b>JAN 16 2013 1520</b>	Received By <b>SEU#1</b>	Print <b>SEU#1</b>	Sign	Date/Time <b>JAN 16 2013 1520</b>	Matrix *
Relinquished By <b>SEU#1</b>	Print <i>SEU#1</i>	Sign	Date/Time <b>JAN 17 2013 0800</b>	Received By <b>L.D. Wall</b>	Print <b>L.D. Wall</b>	Sign <i>L.D. Wall</i>	Date/Time <b>JAN 17 2013 0800</b>	S = Soil    DS = Drum Solids SE = Sediment    DL = Drum Liquids SO = Solid    T = Tissue SL = Sludge    W = Wine W = Water    L = Liquid O = Oil    V = Vegetation A = Air    X = Other
Relinquished By <b>L.D. Wall</b>	Print <i>L.D. Wall</i>	Sign <i>L.D. Wall</i>	Date/Time <b>JAN 17 2013 1050</b>	Received By <b>J. Beck</b>	Print <b>J. Beck</b>	Sign <i>J. Beck</i>	Date/Time <b>JAN 17 2013 1050</b>	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>W13-001-077</b>	
Collector <b>SCOTT KING</b>		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. W13-001		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title RCRA, JANUARY 2013		Logbook No. HNF-N-506 36/ 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		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** 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.		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No/Type Container
B2N3X3	N	W	01-16-13	0937	1x20-mL P
B2N3X3	N	W	↓	↓	1x4-L GIP
B2N3X3	N	W	01-16-13	0937	2x4-L GIP
Sample Analysis		Activity Scan	Holding Time	Preservative	
		GAMMALL_GS: List-1 (9)	6 Months	None	
		1129LL_SEP_LEPS_GS_LL: 1-129 (1) Mxw13	6 Months	HNO3 to pH <2	
			6 Months	None	

SCOTT KING  
W06525

Relinquished By <b>SCOTT KING</b>	Print <i>Scott King</i>	Sign	Date/Time JAN 16 2013 1520	Received By SSU #1	Print	Sign	Date/Time JAN 16 2013 1520	Matrix *
Relinquished By SSU #1			Date/Time JAN 17 2013 0800	Received By L.D. Wall CHPRC			Date/Time JAN 17 2013 0800	S = Soil
Relinquished By L.D. Wall CHPRC			Date/Time JAN 17 2013 1050	Received By Jesse Westbrook			Date/Time JAN 17 2013 1050	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
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

CH2MHill Plateau Remediation Company		C.O.C. # <b>W13-001-078</b>	
Collector <b>SCOTT KING</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>W13-001</b>	Project Title <b>RCRA, JANUARY 2013</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>	Logbook No. <b>HNF-N-506 36/53</b>	Method of Shipment <b>GOVERNMENT VEHICLE</b>	Ice Chest No. <b>N/A</b>
Protocol <b>RCRA</b>	Priority: <b>45 Days</b>	Bill of Lading/Air Bill No. <b>N/A</b>	Offsite Property No. <b>N/A</b>
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** 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)		<b>SPECIAL INSTRUCTIONS</b> Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies.	
Sample No.	Filter	No/Type Container	Sample Analysis
B2N3X8	N	1x20-mL P	Activity Scan
B2N3X8	N	1x4-L GP	GAMMALL_GS: List-1 (9)
B2N3X8	N	2x4-L GP	1129L_SEP_LEPS_GS_LL: 1-129 (1) M YWJK
		Holding Time	Preservative
		6 Months	None
		6 Months	HNO3 to pH <2
		6 Months	None

33A180421  
w060525

Relinquished By <b>SCOTT KING</b>	Print <i>Scott King</i>	Sign <i>Scott King</i>	Date/Time <b>JAN 16 2013 1520</b>
Relinquished By <b>SSU #1</b>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time <b>JAN 16 2013 1520</b>
Relinquished By <b>L.D. Wall</b>	Print <i>L.D. Wall</i>	Sign <i>L.D. Wall</i>	Date/Time <b>JAN 17 2013 0800</b>
Relinquished By <b>CHPRC</b>	Print <i>CHPRC</i>	Sign <i>CHPRC</i>	Date/Time <b>JAN 17 2013 1050</b>
Received By <b>SSU #1</b>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time <b>JAN 16 2013 1520</b>
Received By <b>L.D. Wall</b>	Print <i>L.D. Wall</i>	Sign <i>L.D. Wall</i>	Date/Time <b>JAN 17 2013 0800</b>
Received By <b>CHPRC</b>	Print <i>CHPRC</i>	Sign <i>CHPRC</i>	Date/Time <b>JAN 17 2013 1050</b>
Received By <b>J. Ball</b>	Print <i>J. Ball</i>	Sign <i>J. Ball</i>	Date/Time <b>JAN 17 2013 1050</b>
Received By <b>THU</b>	Print <i>THU</i>	Sign <i>THU</i>	Date/Time <b>JAN 17 2013 1050</b>
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Date/Time

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>W13-001-079</b>	
Collector <b>SCOTT KING</b>		Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>	Page 1 of 1	
SAF No. <b>W13-001</b>		Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>30007IES20</b>		
Project Title <b>RCRA, JANUARY 2013</b>		Logbook No. <b>HNF-N-506 36/53</b>	Ice Chest No. <b>N/A</b>		
Shipped To (Lab) <b>TestAmerica Incorporated, Richland</b>		Method of Shipment <b>GOVERNMENT VEHICLE</b>	Bill of Lading/Air Bill No. <b>N/A</b>		
Protocol <b>RCRA</b>		Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>		<b>SPECIAL INSTRUCTIONS</b> Hold Time <input type="checkbox"/> 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 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		Site Wide Generator Knowledge Information Form applies.			

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2N3Y3	N	W	01-16-13	1256	1x20-mL P	Activity Scan	6 Months	None
B2N3Y3	N	W	01-16-13	1256	1x4-L G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B2N3Y3	N	W	01-16-13	1256	2x4-L G/P	1129LL_SEP_LEPS_GS_LL: 1-129 (1) M NOSTIL	6 Months	None

53A180421  
W060525

Relinquished By <b>SCOTT KING</b>	Print <i>Scott King</i>	Sign <i>Scott King</i>	Date/Time <b>JAN 16 2013 1520</b>	Received By <i>ESL #1</i>	Print <i>ESL #1</i>	Sign <i>ESL #1</i>	Date/Time <b>JAN 16 2013 1520</b>
Relinquished By <b>SSU #1</b>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time <b>JAN 17 2013 0800</b>	Received By <b>LD. Wall</b>	Print <i>LD. Wall</i>	Sign <i>LD. Wall</i>	Date/Time <b>JAN 17 2013 0800</b>
Relinquished By <b>LD. Wall</b>	Print <i>LD. Wall</i>	Sign <i>LD. Wall</i>	Date/Time <b>JAN 17 2013 1050</b>	Received By <i>S. Back</i>	Print <i>S. Back</i>	Sign <i>S. Back</i>	Date/Time <b>JAN 17 2013 1050</b>
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
<b>FINAL SAMPLE DISPOSITION</b>				Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
Disposed By				Date/Time			



Sample Check-in List

Date/Time Received: 1-17-13/1050 Container GM Screen Result: (Airlock) 0.6 Initials [B]
Sample GM Screen Result (Sample Receiving) 0.4 Initials [B]

Client: P6W SDG #: W06525 NA [ ] SAF #: W13-001 NA [ ]

Lot Number: J3A180421

Chain of Custody # W13-001-015; 017; 018; 019

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): 4
7. Containers received: 4 x vial 20; 12 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) [B] 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 N/A

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: N/A

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

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



PLW

Sample Preparation/Analysis													
1/22/2013 10:47:12 AM		Balance Id: 1120482733		Pipet #:		Prep Tech: NyeP		Comments:					
38468, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab		AW Gamma Prp GAM001 TA Gamma by HPGE 5I CLIENT: HANFORD		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:							
Analyte: 02/18/2013		PM, Quote: SS, 57671		Count (24hr) Circle		CR Analyst, Init/Date							
Batch: 3021059 WATER		pCi/L		Detector Id		Beta: 3.64E-04 uCi/Sa							
SEQ Batch, Test: None		2001.00g.in		G18		1415		1/24/13 GH					
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	Scr	Alpha: uCi/Sa	Beta: uCi/Sa	
J3A160410-1-SAMP			2001.00g.in	2001.00g				100	200				
01/14/2013 10:59				AmtRec: 1XVIAL20:1X4LP	#Containers: 2						Alpha: 7.16E-04 uCi/Sa	Beta: 3.64E-04 uCi/Sa	
2 MXWCG-1-AC-X			1717.90g.in	1717.90g							G19	2153	1/24/13 GH
J3A160410-1-DUP													
01/14/2013 10:59				AmtRec: 1XVIAL20:1X4LP	#Containers: 2						Alpha: 7.16E-04 uCi/Sa	Beta: 3.64E-04 uCi/Sa	
3 MXWCT-1-AA			2000.30g.in	2000.30g							G18	1747	1/24/13 GH
J3A160410-2-SAMP													
01/14/2013 10:59				AmtRec: 1XVIAL20:1X4LP	#Containers: 2						Alpha: 5.28E-04 uCi/Sa	Beta: 6.44E-05 uCi/Sa	
4 MXWTH-1-AA			2002.70g.in	2002.70g							G15	1203	1/25/13 GH
J3A180421-1-SAMP													
01/16/2013 14:08				AmtRec: 1XVIAL20:3X4LP	#Containers: 4						Alpha: -2.88E-04 uCi/Sa	Beta: 2.36E-03 uCi/Sa	
5 MXW1J-1-AA			2001.00g.in	2001.00g							G11	1204	
J3A180421-2-SAMP													
01/16/2013 09:37				AmtRec: 1XVIAL20:3X4LP	#Containers: 4						Alpha: -1.72E-03 uCi/Sa	Beta: 1.99E-03 uCi/Sa	
6 MXW1K-1-AA			2001.50g.in	2001.50g							G18	1205	
J3A180421-3-SAMP													
01/16/2013 11:43				AmtRec: 1XVIAL20:3X4LP	#Containers: 4						Alpha: 2.28E-04 uCi/Sa	Beta: 5.78E-04 uCi/Sa	
7 MXW1L-1-AA			1999.30g.in	1999.30g							G19	1204	
J3A180421-4-SAMP													
01/16/2013 12:56				AmtRec: 1XVIAL20:3X4LP	#Containers: 4						Alpha: -2.78E-03 uCi/Sa	Beta: 3.27E-03 uCi/Sa	

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
 TestAmerica Richland Wa. ISV - Insufficient Volume for Analysis  
 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Cocktailed Added  
 WO Cnt: 7  
 Prep\_SamplePrep v4.8.61



Sample Preparation/Analysis												
1/22/2013 10:47:14 AM		Balance Id:1120482733		AW Gamma Prp GAM001		Pipet #:						
AnalytDueDate: 02/18/2013		TA Gamma by HPGE		51 CLIENT: HANFORD		Sep1 DT/Tm Tech:						
Batch: 3021059		pCi/L		Prep Tech: NyeP		Sep2 DT/Tm Tech:						
SEQ Batch, Test: None												
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	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:
<b>Comments:</b> MXWCG-SAMP "Comments Remainder of sample used for dup. Batch 3021059. P.JN 1-22-2013" MXXDN-BLK CommentsS-12-00228,P-12-00603												
<b>All Clients for Batch:</b> 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671												
<b>MXWCGIAA-SAMP Constituent List:</b>												
CO-60	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-134	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
CS-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
EU-154	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Eu-155	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
K-40	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Sb-125	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
<b>MXXDNIAA-BLK:</b>												
CO-60	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-134	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
CS-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
EU-154	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Eu-155	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
K-40	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Sb-125	RDL:0.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	
<b>MXXDNLIAC-LCS:</b>												
CS-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20			pCi/L	LCL:70	UCL:130	RPD:20	
<b>MXWCGIAA-SAMP Calc Info:</b>												
Uncert Level (#s): 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B												
<b>MXXDNIAA-BLK:</b>												
Uncert Level (#s): 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B												
<b>MXXDNLIAC-LCS:</b>												
Uncert Level (#s): 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B												

1/30/2013 11:55:47 AM

## ICOC Fraction Transfer/Status Report

ByDate: 1/31/2012, 2/4/2013, Batch: '3021059', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>3021059</b>				
AC	<b>Rev1C</b>	<b>NyeP</b>	1/22/2013 10:29:12	
SC		davilan	IsBatched	1/21/2013 4:03:00 PM
SC		NyeP	InPrep	1/22/2013 10:29:12 AM
SC		SannohS	Prep1C	1/24/2013 10:41:28 AM
SC		HiattC	InCnt1	1/24/2013 10:50:40 AM
SC		ClarkR	CalcC	1/25/2013 5:38:59 PM
SC		antonsonl	Rev1C	1/30/2013 11:55:36 AM
AC		<b>SannohS</b>	1/24/2013 10:41:28	ICOC_RADCALC v4.8.49
AC		<b>HiattC</b>	1/24/2013 10:50:40	RL-GAM-001 REVISION 3
AC		<b>ClarkR</b>	1/25/2013 5:38:59 PM	RL-GAM-001 REVISION 3
AC		<b>antonsonl</b>	1/30/2013 11:55:36	RL-CI-007 REV. 2
				RL-CI-007 REVISION 3
				RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland  
Richland Wa.

PLW

Sample Preparation/Analysis									
1/29/2013 11:51:37 AM		Balance Id: 1120482733		Pipet #:		Prep Tech: NyeP		Comments:	
384868, CH2M Hill Plateau Remediation Company		BN I-129 Pp/Sep GAM002		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:		CR Analyst, Init/Date	
Pacific Northwest National Lab		TB Gamma by LEPD		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:		Count On   Off (24hr) Circle	
AnalyteDueDate: 02/18/2013		51 CLIENT: HANFORD		PM, Quote: SS, 57671		Prep Tech: NyeP		Detector Id	
Batch: 3021058 WATER		pCi/L		Count Time Min		Ppt or Geometry		Alpha/Beta	
SEQ Batch, Test: None		3866.10g.in		36.0		0.1162		Alpha: 4.37E-04 uCi/Sa	
1 MXWD1-1-AA		ITA12586		200		L4		Beta: 4.27E-05 uCi/Sa	
J3A160417-1-SAMP		12/27/12		36.0		L4		217/13 MO	
01/14/2013 13:50		#Containers: 3		0.1164		L5		2225	
2 MXWD2-1-AA		ITA12587		36.5		L5		2225	
J3A160417-2-SAMP		12/27/12		0.1168		L4		0034	
01/14/2013 13:50		#Containers: 3		0.0805		L4		0034	
3 MXWD4-1-AA		ITA12588		36.2		L4		0034	
J3A160417-3-SAMP		12/27/12		0.1164		L4		0427	
01/14/2013 10:43		#Containers: 3		0.0802		L4		0427	
4 MXWD5-1-AA		ITA12589		36.2		L4		0427	
J3A160417-4-SAMP		12/27/12		0.1162		L5		0428	
01/14/2013 12:19		#Containers: 3		0.0803		L5		0428	
5 MXWD6-1-AC		ITA12590		35.9		L4		0911	
J3A160417-5-SAMP		12/27/12		0.1153		L4		0911	
01/14/2013 13:37		#Containers: 4		0.0800		L4		0911	
6 MXWTJ-1-AA		ITA12591		35.3		L4		0911	
J3A170426-1-SAMP		12/27/12		0.1147		L5		0913	
01/15/2013 11:06		#Containers: 3		0.0779		L5		0913	
7 MXWTK-1-AA		ITA12592		34.8		L5		0913	
J3A170427-1-SAMP		12/27/12		34.8		L5		0913	
01/15/2013 14:01		#Containers: 3		34.8		L5		0913	

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-Cocktalled Added  
 ISV - Insufficient Volume for Analysis  
 WO Cnt: 7  
 Prep\_SamplePrep v4.8.61

PGW

Sample Preparation/Analysis												
1/29/2013 11:51:39 AM		Balance Id: 1120482733		Pipet #:		Prep Tech: ,NyeP		Comments:				
384868, CH2M Hill Plateau Remediation Company		BN I-129 Prp/Sep GAM002		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:						
Pacific Northwest National Lab		TB Gamma by LEPD		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:						
Analyte Due Date: 02/18/2013		51 CLIENT: HANFORD		PM, Quote: SS, 57671								
Batch: 3021058 WATER		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
9 MXW1A-1-AA	3819.10g.in	3819.10g	3819.10g	3819.10g	ITA12593	12/27/12			200	L4	1236	2/8/13 awlx
J3A180420-1-SAMP												
01/16/2013 10:39												
9 MXW1A-1-AC-X	3853.10g.in	3853.10g	3853.10g	3853.10g	ITA12594	12/27/12			365	L5	1238	
J3A180420-1-DUP												
01/16/2013 10:39												
10 MXW1D-1-AA	3844.60g.in	3844.60g	3844.60g	3844.60g	ITA12595	12/27/12			35.3	L4	1145	2/11/13 m
J3A180420-2-SAMP												
01/16/2013 13:06												
11 MXW1E-1-AA	3834.00g.in	3834.00g	3834.00g	3834.00g	ITA12596	12/27/12			35.9	L5	1145	
J3A180420-3-SAMP												
01/16/2013 10:16												
12 MXW1F-1-AA	3845.80g.in	3845.80g	3845.80g	3845.80g	ITA12597	12/27/12			35.7	L5	1145	
J3A180420-4-SAMP												
01/16/2013 12:20												
13 MXW1G-1-AA	3814.60g.in	3814.60g	3814.60g	3814.60g	ITA12598	12/27/12			35.6	L4	2014	2/8/13 awlx
J3A180420-5-SAMP												
01/16/2013 13:54												
14 MXW1H-1-AC	3901.50g.in	3901.50g	3901.50g	3901.50g	ITA12599	12/27/12			36.2	L4	2342	
J3A180421-1-SAMP												
01/16/2013 14:08												
15 MXW1I-1-AA	3814.60g.in	3814.60g	3814.60g	3814.60g	ITA12598	12/27/12			36.0	L4	2342	
J3A180420-5-SAMP												
01/16/2013 13:54												

Sample Preparation/Analysis													
1/29/2013 11:51:41 AM		Balance Id: 1120482733		Pipet #:		CR Analyst, Init/Date		Comments:					
384868, CH2M Hill Plateau Remediation Company		BN I-129 Prp/Sep GAM002		Sep1 DT/Tm Tech:		Count On   Off (24hr) Circle							
Pacific Northwest National Lab		TB Gamma by LEPD		Sep2 DT/Tm Tech:		Detector Id							
Analyte Due Date: 02/18/2013		51 CLIENT: HANFORD		Prep Tech: ,NyeP									
Batch: 3021058 WATER		pCi/L		PM, Quote: SS, 57671									
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:
15 MXW1J-1-AC	3873.80g.in	3873.80g	ITA12600	3873.80g	12/27/12			0.1157 0.0807	200	L5	23 43	2/8/13 JH	
J3A180421-2-SAMP													
01/16/2013 09:37													
16 MXW1K-1-AC	3851.90g.in	3851.90g	ITA12601	3851.90g	01/29/13			35.2		L4	1009	2/11/13 CJH	Beta: 1.99E-03 uCi/Sa
J3A180421-3-SAMP								0.0001156 0.0802					
01/16/2013 11:43													
17 MXW1L-1-AC	3878.80g.in	3878.80g	ITA12602	3878.80g	01/29/13			35.4		L5	1010		Beta: 5.78E-04 uCi/Sa
J3A180421-4-SAMP								0.1157 0.0802					
01/16/2013 12:56													
18 MXW1M-1-AA-B	3801.10g.in	3801.10g	ITA12603	3801.10g	01/29/13			35.2		L4	1335		Beta: 3.27E-03 uCi/Sa
J3A210000-58-BLK								0.01150 0.0803					
01/21/2013 15:59 pd													
19 MXW1N-1-AC-C	3874.00g.in	3874.00g	ISD1512	3874.00g	01/17/13			34.7		L5	1336		Beta:
J3A210000-58-LCS								0.1160 0.0804					
01/21/2013 15:59 pd													
								35.6					Beta:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3  
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added  
 ISV - Insufficient Volume for Analysis  
 WO Cnt: 19  
 Prep\_SamplePrep v4.8.61

1/29/2013 11:51:42 AM		Sample Preparation/Analysis		Balance Id:1120482733								
BN I-129 Prp/Sep GAM002		TB Gamma by LEPD		Pipet #:								
Analyte Due Date: 02/18/2013		51 CLIENT: HANFORD		Sep1 DT/Tm Tech:								
Batch: 3021058		pCi/L		Sep2 DT/Tm Tech:								
SEQ Batch, Test: None				Prep Tech: NyeP								
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	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:
<p><b>Comments:</b> MXXDMLBLK *CommentsS-12-00228,S-12-00193*,P-12-00571S-12-00193,P-12-00571,P-12-00672.,P-12-00672.</p> <p>All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671</p> <p>MXXDMLAA-SAMP Constituent List: I-129 RDL:0.50E+00 pCi/L LCL: UCL: RPD: MXXDMLAA-BLK: I-129 RDL:0.50E+00 pCi/L LCL: UCL: RPD: MXXDMLAC-LCS: I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20 MXXDMLAA-SAMP Calc Info: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXXDMLAA-BLK: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: Y Sci.Not.: Y ODRs: B MXXDMLAC-LCS: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B</p>												
TestAmerica	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep 1, s2 - Sep 2	Page 4		ISV - Insufficient Volume for Analysis		WO Cnt: 19						
Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added					Prep_SamplePrep v4.8.61						

2/14/2013 9:53:39 AM

## ICOC Fraction Transfer/Status Report

ByDate: 2/15/2012, 2/19/2013, Batch: '3021058', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>3021058</b>				
AC	<b>Rev1C</b>	<b>NyeP</b>	1/29/2013 7:56:54	
SC		davilan	IsBatched	1/21/2013 4:02:57 PM ICOC_RADCALC v4.8.49
SC		NyeP	InPrep	1/29/2013 7:56:54 AM RL-GAM-002 REVISION 3
SC		SannohS	InPrep	1/29/2013 11:23:02 AM RL-GAM-002 REVISION 3
SC		NortonJ	InSep1	2/7/2013 11:45:51 AM RL-GAM-002 REVISION 3
SC		HiattC	InCnt1	2/7/2013 1:59:22 PM RL-CI-007 REV. 2
SC		DawkinsO	CalcC	2/13/2013 12:10:20 AM RL-CI-007 REV. 2
SC		antonsonl	Rev1C	2/14/2013 9:53:28 AM RL-DR-001 Rev 2
AC		<b>SannohS</b>	1/29/2013 11:23:02	
AC		<b>NortonJ</b>	2/7/2013 11:45:51	
AC		<b>HiattC</b>	2/7/2013 1:59:22 PM	
AC		<b>DawkinsO</b>	2/13/2013 12:10:20	
AC		<b>antonsonl</b>	2/14/2013 9:53:28	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland  
Richland Wa.

Sample Preparation/Analysis													
1/21/2013 3:59:58 PM		Balance Id:		Pipet #:		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:					
384868, CH2M Hill Plateau Remediation Company		AR H-3 Prp/Sep LSC005		PM, Quote: SS, 57671		Prep Tech:							
, Pacific Northwest National Lab		T0 Tritium - Midlevel, by Liquid Scint		51 CLIENT: HANFORD									
AnalyteDueDate: 02/18/2013		WATER		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-Activated)	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:
<b>1 MXWAR-1-AA</b>													
J3A160408-1-SAMP													
01/14/2013 11:47													Beta: -5.43E-06 uCi/Sa
AmiRec: 1XVIAL20;1XLP #Containers: 2													
<b>2 MXWAT-1-AA</b>													
J3A160408-2-SAMP													
01/14/2013 10:58													Beta: 2.84E-04 uCi/Sa
AmiRec: 1XVIAL20;1XLP #Containers: 2													
<b>3 MXWD6-1-AA</b>													
J3A160417-5-SAMP													
01/14/2013 13:37													Beta: 3.40E-04 uCi/Sa
AmiRec: 1XVIAL20;2X4LP;1XLP #Containers: 4													
<b>4 MXWHR-1-AA</b>													
J3A160429-1-SAMP													
01/15/2013 14:04													Beta: 3.76E-05 uCi/Sa
AmiRec: 1XVIAL20;1XLP #Containers: 2													
<b>5 MXWHR-1-AC-X</b>													
J3A160429-1-DUP													
01/15/2013 14:04													Beta: 3.76E-05 uCi/Sa
AmiRec: 1XVIAL20;1XLP #Containers: 2													
<b>6 MXXDP-1-AA-B</b>													
J3A210000-60-BLK													
01/21/2013 15:59 pd													Beta:
AmiRec: #Containers: 1													
<b>7 MXXDP-1-AC-C</b>													
J3A210000-60-LCS													
01/21/2013 15:59 pd													Beta:
AmiRec: #Containers: 1													
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		WO Cnt: 7	
										ISV - Insufficient Volume for Analysis		ICOC v4.8.49	

1/21/2013 3:59:59 PM **Sample Preparation/Analysis** Balance Id: \_\_\_\_\_ Pipet #: \_\_\_\_\_

AR H-3 Prp/Sep LSC005  
T0 Tritium - Midlevel, by Liquid Scint  
51 CLIENT: HANFORD

AnalyseDate: 02/18/2013 Sep1 DT/Tm Tech: \_\_\_\_\_  
Sep2 DT/Tm Tech: \_\_\_\_\_

Batch: 3021060 pCi/L  
SEQ Batch, Test: None Prep Tech: \_\_\_\_\_

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	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 MXXDP-1AD-BN												
J3A210000-60-BLK												
01/21/2013 15:59 pd												

#Containers: 1  
AmfRec: \_\_\_\_\_  
Scr: \_\_\_\_\_ Alpha: \_\_\_\_\_ Beta: \_\_\_\_\_

**Comments:**

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

MXWARI1AA-SAMP Constituent List:  
H-3 RDL:3.00E+01 pCi/L LCL: \_\_\_\_\_ UCL: \_\_\_\_\_ REP:  
MXXDP1AA-BLK:  
MXXDP1AC-LCS:  
MXXDP1AD-BLK:

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

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  
WOCnt: 8  
ICOC v4-8.49

FEBRUARY 15, 2013

2/4/2013 11:20:08 AM

# ICOC Fraction Transfer/Status Report

ByDate: 2/5/2012, 2/9/2013, Batch: '3021060', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>3021060</b>				
AC	Rev1C	NyeM	1/23/2013 8:57:05	
SC		davilan	IsBatched	1/21/2013 4:03:04 PM
SC		NyeM	InPrep	1/23/2013 8:57:05 AM
SC		NyeM	Sep1C	1/23/2013 12:35:16 PM
SC		ClarkR	InCnt1	1/23/2013 12:56:17 PM
SC		ClarkR	CalcC	2/2/2013 7:08:33 AM
SC		NortonJ	Rev1C	2/4/2013 11:19:56 AM
AC		NyeM	1/23/2013 12:35:16	ICOC_RADCALC v4.8.49
AC		ClarkR	1/23/2013 12:56:17	RL-LSC-005 REVISION 2
AC		ClarkR	2/2/2013 7:08:33 AM	RL-LSC-005 REVISION 2
AC		NortonJ	2/4/2013 11:19:56	RL-CI-005 REVISION 3
				RL-CI-005 REVISION 3
				RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland  
Richland Wa.