Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica Inc TARL

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

Data Package Contains _____ Pages

Report Nbr: 56373

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06570	I13-025	B2P3C2	J3E310409-1	M008L1AA	9M008L10	3175059
		B2P3C3	J3E310409-2	M008N1AA	9M008N10	3175059
	I13-023	B2P250	J3E310410-1	M008P1AA	9M008P10	3175060
		B2P251	J3E310410-2	M008Q1AA	9M008Q10	3175060
	I13-028	B2P890	J3F050438-1	M02GH1AA	9M02GH10	3175059
		B2P890	J3F050438-1	M02GH1AC	9M02GH10	3175061
		B2P891	J3F050438-2	M02GJ1AA	9M02GJ10	3175059
		B2P891	J3F050438-2	M02GJ1AC	9M02GJ10	3175061
		B2P893	J3F050438-3	M02GK1AA	9M02GK10	3175059
	W13-006	B2P967	J3F050439-1	M02GL1AA	9M02GL10	3175059
		B2P967	J3F050439-1	M02GL1AC	9M02GL10	3175061
		B2P972	J3F050439-2	M02GM1AA	9M02GM10	3175059
		B2P972	J3F050439-2	M02GM1AC	9M02GM10	3175061
	I13-028	B2P884	J3F050440-1	M02GN1AA	9M02GN10	3175060
		B2P884	J3F050440-1	M02GN1AC	9M02GN10	3175059

Comments:

Report Nbr: 56373

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06570	I13-028	B2P885	J3F050440-2	M02GP1AA	9M02GP10	3175060
		B2P885	J3F050440-2	M02GP1AC	9M02GP10	3175059
	W13-006	B2P928	J3F050442-1	M02G41AA	9M02G410	3175059
		B2P928	J3F050442-1	M02G41AC	9M02G410	3175061
		B2P929	J3F050442-2	M02G61AA	9M02G610	3175059
		B2P929	J3F050442-2	M02G61AC	9M02G610	3175061
	S13-006	B2PB89	J3F100411-1	M028J1AA	9M028J10	3175059
		B2PB89	J3F100411-1	M028J1AC	9M028J10	3175067
		B2PB97	J3F100411-2	M028K1AA	9M028K10	3175067
	W13-006	B2P8Y1	J3F100413-1	M028N1AA	9M028N10	3175059
	I13-028	B2P882	J3F120441-1	M04KX1AA	9M04KX10	3175059
	I13-024	B2P394	J3F140413-1	M042L1AA	9M042L10	3175059
	S13-006	B2PB84	J3F140416-1	M042Q1AA	9M042Q10	3175059
	S13-012	B2MY46	J3F150411-1	M05AG1AA	9M05AG10	3175058

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Amended Certificate of Analysis

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

August 8, 2013

Attention: Scot Fitzgerald

SAF Number	:	I13-023, I13-024, I13-025, I13-028, S13-006, S13-012, W13-006
Date SDG Closed	:	June 13, 2013
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W06570
Data Deliverable	:	30-Day / Summary

AMENDED CASE NARRATIVE

I. Introduction

Between May 30, 2013 and June 13, 2013, twenty 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:

CH2M ID#	TARL ID#	DATE OF RECEIPT	MATRIX
B2P3C2	M008L	5/30/13	WATER
B2P3C3	M008N	5/30/13	WATER
B2P250	M008P	5/30/13	WATER
B2P251	M008Q	5/30/13	WATER
B2P890	M02GH	6/05/13	WATER
B2P891	M02GJ	6/05/13	WATER
B2P893	M02GK	6/05/13	WATER
B2P967	M02GL	6/05/13	WATER
B2P972	M02GM	6/05/13	WATER
B2P884	M02GN	6/05/13	WATER
B2P885	M02GP	6/05/13	WATER

B2P928	M02G4	6/05/13	WATER
B2P929	M02G6	6/05/13	WATER
B2PB89	M028J	6/06/13	WATER
B2PB97	M028K	6/06/13	WATER
B2P8Y1	M028N	6/06/13	WATER
B2P882	M04KX	6/11/13	WATER
B2P394	M042L	6/12/13	WATER
B2PB84	M042Q	6/12/13	WATER
B2PY46	M05AG	6/13/13	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
Carbon-14 by method RL-LSC-008
Selenium-79 by method RL-LSC-012
Technetium-99 by method RL-LSC-013

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:
There was insufficient volume for a duplicate. Sample B2MY46 was recounted on a different detector for the duplicate (B2MY46 DUP). Except as noted, the LCS, batch blank, samples and sample duplicate (B2MY46) results are within contractual requirements.

Iodine-129 (LL) by method RL-GAM-002:
The LCS, batch blank, samples and sample duplicate (B2P3C2) results are within contractual requirements.

Liquid Scintillation Counting

Carbon-14 by method RL-LSC-008:
The LCS, batch blank, samples and sample duplicate (B2P250) results are within contractual requirements.

Selenium-79 by method RL-LSC-012:
A calculation error was discovered after the Se-79 data had been reported. Yield corrections had not been applied to the sample results. The data has been re-calculated and re-reviewed. The amended results are included in this report.

There is no LCS for selenium-79. Except as noted, batch blank, samples and sample duplicate (B2P890) results are within contractual requirements.

Technetium-99 by method RL-LSC-013:
The LCS, batch blank, samples, sample duplicate (B2PB89) and sample matrix spike (B2PB97) 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

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR13-223
REV NUM	0
DATE INITIATED	8/7/2013

SAMPLE EVENT INFORMATION

SAF NUM(S)	I13-028
OPERABLE UNIT(S)	200-UP-1
PROJECT(S)	CERC13
SAMPLE EVENT TITLE(S)	CERC13
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	1
SAMPLE NUMBERS	B2P890
SAMPLE MATRIX	WATER
COLLECTION DATE	6/4/2013 - 6/4/2013
SDG NUM	W06570

ISSUE BACKGROUND

CLASS	Chain of Custody Issue (Field)
TYPE	No/Illegible Relinquish/Receipt Date/Time
DESCRIPTION	COC# I13-028-021; Sample B2P890; The sampler did not include a time of receipt when picking up the sample from the SSU (second receipt line).

DISPOSITION

DESCRIPTION	PROPOSED DISPOSITION: Document the excursion, insert the SIR into the data package and close the SIR.
JUSTIFICATION	ACCEPTED DISPOSITION: Accept the proposed resolution. SUBMITTED BY: Sara Champoux/CHPRC Date: 8/7/13 ACCEPTED BY: Susan Puckett/CHPRC Date: 8/7/13

Drinking Water Method Cross References

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

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

Uncertainty Estimation

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

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

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

Report Definitions

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

TestAmerica Inc Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 56373 File Name: h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M008L10	B2P3C2		MW6-SBB-A1	I13-025	W06570					05/29/2013 07:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	8.91E-03	pCi/L	1.2E-01	1.2E-01	U	2.09E-01	83.5	I129LL_SEP_LEPS	3.8904E+00	L	07/19/2013 10:40	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:
9M008N10	B2P3C3		MW6-SBB-A1	I13-025	W06570					05/29/2013 12:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	6.44E-01	pCi/L	2.7E-01	2.7E-01		1.78E-01	97.3	I129LL_SEP_LEPS	3.8747E+00	L	07/19/2013 14:12	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:
9M008P10	B2P250		MW6-SBB-A1	I13-023	W06570					05/29/2013 09:08

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175060	C-14	14762-75-5	1.39E+03	pCi/L	2.6E+01	8.2E+01		1.68E+01	100.0	C14_LSC	7.50E-02	L	07/22/2013 04:51	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:
9M008Q10	B2P251		MW6-SBB-A1	I13-023	W06570					05/29/2013 09:08

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175060	C-14	14762-75-5	1.39E+03	pCi/L	2.6E+01	8.2E+01		1.68E+01	100.0	C14_LSC	7.52E-02	L	07/22/2013 06:55	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:
9M028J10	B2PB89		MW6-SBB-A1	S13-006	W06570					06/05/2013 09:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	4.70E+00	pCi/L	6.3E-01	6.3E-01		2.37E-01	95.7	I129LL_SEP_LEPS	3.7415E+00	L	07/22/2013 14:38	I
3175067	Tc-99	14133-76-7	1.07E+04	pCi/L	5.6E+01	5.9E+02		9.71E+00	100.0	TC99_SEP_LSC	1.255E-01	L	07/20/2013 23:23	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:
9M028K10	B2PB97		MW6-SBB-A1	S13-006	W06570					06/05/2013 13:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175067	Tc-99	14133-76-7	1.23E+01	pCi/L	4.4E+00	6.1E+00		9.65E+00	100.0	TC99_SEP_LSC	1.256E-01	L	07/21/2013 01:27	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:
9M028N10	B2P8Y1		MW6-SBB-A1	W13-006	W06570					06/06/2013 09:47

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 Inc Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 56373 File Name: h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	1.61E-01	pCi/L	1.0E-01	1.0E-01	U	2.10E-01	94.6	I129LL_SEP_LEPS	3.7874E+00	L	07/22/2013 14:40	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:
9M02G410	B2P928		MW6-SBB-A1	W13-006	W06570					06/05/2013 08:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	-5.26E-02	pCi/L	1.1E-01	1.1E-01	U	1.91E-01	92.7	I129LL_SEP_LEPS	3.6699E+00	L	07/22/2013 10:56	I
3175061	Se-79	15758-45-9	2.35E+01	pCi/L	5.2E+00	6.0E+00		1.28E+01	69.8	SE79_SEP_IE_LS	2.01E-01	L	07/26/2013 15:09	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02G610	B2P929		MW6-SBB-A1	W13-006	W06570					06/05/2013 11:20

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	3.61E-01	pCi/L	2.1E-01	2.1E-01		1.76E-01	97.0	I129LL_SEP_LEPS	3.8404E+00	L	07/22/2013 10:58	I
3175061	Se-79	15758-45-9	9.01E+01	pCi/L	7.0E+00	9.2E+00		1.24E+01	72.5	SE79_SEP_IE_LS	2.003E-01	L	07/26/2013 16:03	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02GH10	B2P890		MW6-SBB-A1	I13-028	W06570					06/04/2013 09:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	1.88E-01	pCi/L	1.0E-01	1.0E-01	U	2.10E-01	91.4	I129LL_SEP_LEPS	3.8287E+00	L	07/19/2013 14:13	I
3175061	Se-79	15758-45-9	6.38E+01	pCi/L	6.9E+00	8.4E+00		1.50E+01	59.7	SE79_SEP_IE_LS	2.006E-01	L	07/26/2013 10:42	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02GJ10	B2P891		MW6-SBB-A1	I13-028	W06570					06/04/2013 09:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	1.83E-01	pCi/L	3.2E-01	3.2E-01	U	1.69E-01	98.1	I129LL_SEP_LEPS	3.8573E+00	L	07/19/2013 18:02	I
3175061	Se-79	15758-45-9	5.25E+01	pCi/L	6.0E+00	7.3E+00		1.23E+01	72.3	SE79_SEP_IE_LS	2.008E-01	L	07/26/2013 12:29	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02GK10	B2P893		MW6-SBB-A1	I13-028	W06570					06/04/2013 10:53

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	2.20E+00	pCi/L	4.5E-01	4.5E-01		2.02E-01	95.7	I129LL_SEP_LEPS	3.7856E+00	L	07/19/2013 18:03	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:
9M02GL10	B2P967		MW6-SBB-A1	W13-006	W06570					06/04/2013 12:55

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 Inc Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 56373 File Name: h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	-3.81E-02	pCi/L	8.7E-02	8.7E-02	U	1.51E-01	93.5	I129LL_SEP_LEPS	3.8304E+00	L	07/19/2013 21:58	I
3175061	Se-79	15758-45-9	1.59E+02	pCi/L	1.4E+01	1.7E+01		3.42E+01	26.0	SE79_SEP_IE_LS	2.018E-01	L	07/26/2013 13:22	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02GM10	B2P972		MW6-SBB-A1	W13-006	W06570					06/04/2013 14:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	1.09E-02	pCi/L	1.0E-01	1.0E-01	U	1.87E-01	90.5	I129LL_SEP_LEPS	3.7674E+00	L	07/19/2013 21:59	I
3175061	Se-79	15758-45-9	2.95E+01	pCi/L	5.6E+00	6.5E+00		1.37E+01	65.4	SE79_SEP_IE_LS	2.007E-01	L	07/26/2013 14:16	R

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9M02GN10	B2P884		MW6-SBB-A1	I13-028	W06570					06/05/2013 07:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175060	C-14	14762-75-5	1.40E+00	pCi/L	7.1E+00	8.3E+00	U	1.69E+01	100.0	C14_LSC	7.47E-02	L	07/22/2013 07:57	I
3175059	I-129	15046-84-1	-3.20E-02	pCi/L	1.1E-01	1.1E-01	U	1.86E-01	96.2	I129LL_SEP_LEPS	3.5909E+00	L	07/22/2013 07:27	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:
9M02GP10	B2P885		MW6-SBB-A1	I13-028	W06570					06/05/2013 09:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175060	C-14	14762-75-5	4.15E+01	pCi/L	8.2E+00	9.8E+00		1.67E+01	100.0	C14_LSC	7.54E-02	L	07/22/2013 08:59	I
3175059	I-129	15046-84-1	2.36E+00	pCi/L	3.6E-01	3.6E-01		1.82E-01	95.7	I129LL_SEP_LEPS	3.8383E+00	L	07/22/2013 07:29	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:
9M042L10	B2P394		MW6-SBB-A1	I13-024	W06570					06/11/2013 10:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	8.10E-01	pCi/L	2.8E-01	2.8E-01		1.98E-01	97.3	I129LL_SEP_LEPS	3.6532E+00	L	07/22/2013 19:21	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:
9M042Q10	B2PB84		MW6-SBB-A1	S13-006	W06570					06/11/2013 14:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	-4.73E-02	pCi/L	1.1E-01	1.1E-01	U	1.91E-01	97.8	I129LL_SEP_LEPS	3.6331E+00	L	07/22/2013 23:59	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:
9M04KX10	B2P882		MW6-SBB-A1	I13-028	W06570					06/10/2013 12:49

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 Inc Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 56373 File Name: h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175059	I-129	15046-84-1	-6.22E-02	pCi/L	1.2E-01	1.2E-01	U	1.62E-01	95.4	I129LL_SEP_LEPS	3.5782E+00	L	07/22/2013 19:20	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:
9M05AG10	B2MY46		MW6-SBB-A1	S13-012	W06570					06/12/2013 09:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3175058	BE-7	13966-02-4	-6.98E+00	pCi/L	1.2E+01	1.2E+01	U	2.10E+01		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	CO-60	10198-40-0	2.97E-01	pCi/L	1.6E+00	1.6E+00	U	3.28E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	CS-134	13967-70-9	5.50E-01	pCi/L	1.4E+00	1.4E+00	U	2.88E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	CS-137	10045-97-3	2.32E-01	pCi/L	1.3E+00	1.3E+00	U	2.57E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	EU-152	14683-23-9	1.31E-01	pCi/L	3.5E+00	3.5E+00	U	6.22E+00		GAMMALL_GS	2.00E+00	L	07/03/2013 17:18	I
3175058	EU-154	15585-10-1	4.17E-01	pCi/L	4.5E+00	4.5E+00	U	8.91E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	EU-155	14391-16-3	1.11E+00	pCi/L	1.8E+00	1.8E+00	U	3.57E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	K-40	13966-00-2	1.42E+01	pCi/L	4.8E+01	4.8E+01	U	2.69E+01		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	RU-106	13967-48-1	2.39E+00	pCi/L	1.2E+01	1.2E+01	U	2.31E+01		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	I
3175058	SB-125	14234-35-6	7.10E-01	pCi/L	2.9E+00	2.9E+00	U	5.38E+00		GAMMALL_GS	2.00E+00	L	07/05/2013 20:33	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 Inc QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A01AB	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/12/2013 09:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/13/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BA	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
3175058	BE-7	-3.74E+00	pCi/L	1.1E+01	U	1.92E+01			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	13966-02-4			1.1E+01						L	17:19				
3175058	CO-60	5.20E-02	pCi/L	1.6E+00	U	3.20E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	10198-40-0			1.6E+00						L	17:19				
3175058	CS-134	3.28E-01	pCi/L	1.8E+00	U	3.47E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	13967-70-9			1.8E+00						L	17:19				
3175058	CS-137	-1.19E-01	pCi/L	1.6E+00	U	2.91E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	10045-97-3			1.6E+00						L	17:19				
3175058	EU-152	-1.31E+00	pCi/L	3.6E+00	U	6.29E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	14683-23-9			3.6E+00						L	17:19				
3175058	EU-154	5.94E+00	pCi/L	5.2E+00	U	1.18E+01			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	15585-10-1			5.2E+00						L	17:19				
3175058	EU-155	1.16E+00	pCi/L	2.5E+00	U	4.58E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	14391-16-3			2.5E+00						L	17:19				
3175058	K-40	2.50E+01	pCi/L	5.1E+01	U	2.79E+01			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	13966-00-2			5.1E+01						L	17:19				
3175058	RU-106	2.58E+00	pCi/L	1.2E+01	U	2.34E+01			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	13967-48-1			1.2E+01						L	17:19				
3175058	SB-125	-8.48E-01	pCi/L	3.4E+00	U	5.95E+00			GAMMALL_GS	1.9999E+00	07/03/2013				D
BLK	14234-35-6			3.4E+00						L	17:19				

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 Inc QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A11AB	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 05/29/2013 07:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	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 Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3175059	I-129	2.34E-02	pCi/L	8.7E-02	U	1.64E-01	88.4		I129LL_SEP_L	3.9736E+00	07/22/2013				D
BLK	15046-84-1			8.7E-02						L	23:59				

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 Inc QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A21AB	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 05/29/2013 09:08
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BE	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
3175060	C-14	-1.44E+00	pCi/L	8.1E+00	U	1.66E+01	100.0		C14_LSC	7.49E-02	07/22/2013				D
BLK	14762-75-5			6.9E+00						L	10:00				

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 Inc QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A31AB	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/04/2013 09:04
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/05/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BG	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
3175061	Se-79	2.60E+01	pCi/L	6.2E+00		1.29E+01	69.3		SE79_SEP_IE	2.001E-01	07/26/2013				D
BLK	15758-45-9			5.4E+00						L	16:56				

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 Inc QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07CP1AB	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/05/2013 09:41
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/06/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BH	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
3175067	Tc-99	2.78E+00	pCi/L	5.6E+00	U	9.73E+00	100.0		TC99_SEP_LS	1.251E-01	07/21/2013				D
BLK	14133-76-7			4.1E+00						L	03:31				

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 Inc QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A01CS	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/12/2013 09:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 06/13/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BB	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
3175058	CS-137	9.85E+01	pCi/L	1.4E+01		3.56E+00		1.02E+02	GAMMALL_GS	2.00E+00	07/03/2013			70	D
BS	10045-97-3			1.4E+01				96.1		L	17:19			130	

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, August 09, 2013

TestAmerica Inc QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07A11CS	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 05/29/2013 07:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
3175059	I-129	9.76E+00	pCi/L	1.1E+00		2.63E-01	93.3	9.86E+00	I129LL_SEP_L	3.9366E+00	07/23/2013			70	D
BS	15046-84-1			1.1E+00				99.0		L	07:19			130	

AUGUST 26, 2013

REV. 2

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

Lab Sample Id: M07A21CS **Sdg/Rept Nbr:** W06570 56373 **Collection Date:** 05/29/2013 09:08

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BF	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
3175060	C-14	4.74E+02	pCi/L	3.2E+01		1.68E+01	100.0	4.77E+02	C14_LSC	7.51E-02	07/22/2013			70	D
BS	14762-75-5			1.6E+01				99.6		L	11:02			130	

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 Inc QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M07CP1CS	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/05/2013 09:41
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 06/06/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BI	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
3175067	Tc-99	4.64E+02	pCi/L	3.1E+01		9.68E+00	100.0	5.46E+02	TC99_SEP_LS	1.256E-01	07/21/2013			70	D
BS	14133-76-7			1.2E+01				85.0		L	04:33			130	

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 Inc QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M008L1CR	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 05/29/2013 07:15
Client Id:	B2P3C2	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I13-025	MW6-SBB-A19981								AU	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
3175059	I-129	-2.46E-02	pCi/L	9.7E-02	U	1.71E-01	80.5		I129LL_SEP_L	3.9024E+00	07/19/2013	0.0	0.5		D
DUP	15046-84-1	8.91E-03		9.7E-02						L	10:41	20.0	3		

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 Inc QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M008P1CR	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 05/29/2013 09:08
Client Id:	B2P250	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/30/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I13-023	MW6-SBB-A19981								AV	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
3175060	C-14	1.38E+03	pCi/L	8.2E+01		1.67E+01	100.0		C14_LSC	7.55E-02	07/22/2013	.1	0.		D
DUP	14762-75-5	1.39E+03		2.6E+01						L	05:53	20.0	3		

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

Lab Sample Id:	M028J1DR	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/05/2013 09:41
Client Id:	B2PB89	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 06/06/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-006	MW6-SBB-A19981								AW	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
3175067	Tc-99	1.06E+04	pCi/L	5.8E+02		9.68E+00	100.0		TC99_SEP_LS	1.257E-01	07/21/2013	.9	0.2		D
DUP	14133-76-7	1.07E+04		5.6E+01						L	00:25	20.0	3		

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 Inc QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M02GH1DR	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/04/2013 09:04
Client Id:	B2P890	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 06/05/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I13-028	MW6-SBB-A19981								AY	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
3175061	Se-79	4.88E+01	pCi/L	7.1E+00		1.21E+01	74.3		SE79_SEP_IE	2.002E-01	07/26/2013	26.7	3.		D
DUP	15758-45-9	6.38E+01		5.8E+00						L	11:36	20.0	3		

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

Lab Sample Id: M05AG1CR **Sdg/Rept Nbr:** W06570 56373 **Collection Date:** 06/12/2013 09:15

Client Id: B2MY46 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/13/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-012	MW6-SBB-A19981								AZ	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
3175058	BE-7	-7.93E-02	pCi/L	1.4E+01	U	2.49E+01			GAMMALL_GS	2.00E+00	07/03/2013	0.0	0.7		D
DUP	13966-02-4	-6.98E+00		1.4E+01						L	19:06	20.0	3		
3175058	CO-60	1.34E-01	pCi/L	1.8E+00	U	3.58E+00			GAMMALL_GS	2.00E+00	07/03/2013	75.9	0.1		D
DUP	10198-40-0	2.97E-01		1.8E+00						L	19:06	20.0	3		
3175058	CS-134	1.22E+00	pCi/L	1.5E+00	U	3.21E+00			GAMMALL_GS	2.00E+00	07/03/2013	75.5	0.6		D
DUP	13967-70-9	5.50E-01		1.5E+00						L	19:06	20.0	3		
3175058	CS-137	9.81E-01	pCi/L	1.7E+00	U	3.36E+00			GAMMALL_GS	2.00E+00	07/03/2013	123.4	0.6		D
DUP	10045-97-3	2.32E-01		1.7E+00						L	19:06	20.0	3		
3175058	EU-152	3.39E+00	pCi/L	3.9E+00	U	7.46E+00			GAMMALL_GS	2.00E+00	07/03/2013	185.1	1.2		D
DUP	14683-23-9	1.31E-01		3.9E+00						L	19:06	20.0	3		
3175058	EU-154	2.59E+00	pCi/L	4.6E+00	U	1.00E+01			GAMMALL_GS	2.00E+00	07/03/2013	144.5	0.7		D
DUP	15585-10-1	4.17E-01		4.6E+00						L	19:06	20.0	3		
3175058	EU-155	-6.77E-01	pCi/L	2.8E+00	U	4.77E+00			GAMMALL_GS	2.00E+00	07/03/2013	824.0	0.9		D
DUP	14391-16-3	1.11E+00		2.8E+00						L	19:06	20.0	3		
3175058	K-40	8.94E+01	pCi/L	5.6E+01		2.79E+01			GAMMALL_GS	2.00E+00	07/03/2013	145.2	1.9		D
DUP	13966-00-2	1.42E+01		5.6E+01						L	19:06	20.0	3		
3175058	RU-106	-7.50E-01	pCi/L	1.4E+01	U	2.47E+01			GAMMALL_GS	2.00E+00	07/03/2013	383.2	0.3		D
DUP	13967-48-1	2.39E+00		1.4E+01						L	19:06	20.0	3		
3175058	SB-125	1.76E+00	pCi/L	3.4E+00	U	6.51E+00			GAMMALL_GS	2.00E+00	07/03/2013	85.2	0.4		D
DUP	14234-35-6	7.10E-01		3.4E+00						L	19:06	20.0	3		

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 Inc Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06570.Edd, h:\Reportdb\edd\FeadIV\Rad\56373.Ed

Lab Sample Id:	M028K1CW	**Sdg/Rept Nbr:**	W06570	56373	**Collection Date:** 06/05/2013 13:31
Client Id:	B2PB97	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**MS**		**Received Date:** 06/06/2013

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-006	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
3175067	Tc-99	3.38E+03	pCi/L	1.9E+02		9.69E+00	100.0	3.60E+03	TC99_SEP_LS	1.252E-01	07/21/2013			60	D
MS	14133-76-7			3.2E+01				93.8		L	02:29			140	

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
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

7/15/2013 12:06:13 PM

Lot No., Due Date: J3F150411; 07/15/2013
Client, Site: 384868; A210440HANFORD HANFORD
QC Batch No., Method Test: 3175058; RGAMMA Gamma by GER
SDG, Matrix: W06570; WATER

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

6.0 Comments on any No response: SKS 7/16/13 ✓

~~NCM 10-23925~~ SKS 7/16/13

First Level _____ Date 7/15/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3175058

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

Comments on any "No" response: _____

Second Level Review: Sandra Segee Date: 7-16-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

7/24/2013 4:35:41 PM

Lot No., Due Date: J3E310409,J3F100411,J3F100413,J3F050442,J3F050438,J3F050439,J3F050440,J3F140413,J3F
Client, Site: 384868; A210440HANFORD HANFORD
QC Batch No., Method Test: 3175059; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06570; WATER,,

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

6.0 Comments on any No response:

First Level [signature] Date 7/24/13

TestAmerica Richland
QAS_RADCALCv4.8.44

IMA 7/24/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3175059

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

Comments on any "No" response: _____

Second Level Review: Sandra Segan Date: 7-28-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/26/2013 2:23:44 PM

Lot No., Due Date: J3E310410,J3F050440; 07/15/2013
Client, Site: 384868; A210440HANFORD HANFORD
QC Batch No., Method Test: 3175060; RC14 C-14 by LSC
SDG, Matrix: W06570; WATER,,

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

6.0 Comments on any No response:

First Level [signature] Date 7/26/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3175060

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

Comments on any "No" response: _____

Second Level Review: Sandra Segen Date: 7-29-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

8/9/2013 10:33:03 AM

Lot No., Due Date: J3F050442,J3F050438,J3F050439; 07/15/2013
Client, Site: 384868; A210440HANFORD HANFORD
QC Batch No., Method Test: 3175061; RSE79 Se-79 by LSC
SDG, Matrix: W06570; WATER

AMENDE

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

6.0 Comments on any No response:
NCM 10-24234

First Level _____ Date 8/9/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

AMENDE

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3175061

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

Comments on any "No" response: See NCM 10-24234

Second Level Review: Sandra Leger Date: 8-9-13

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

ADDITIONAL

Clouseau Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-24234**
NCM Initiated By: Tom Mcginnis
Date Opened: 08/09/2013
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Se-79 by LSC
Lot #'s (Sample #'s): J3F050438 (1,2), J3F050439 (1,2), J3F050442 (1,2), J3F240000 (61),
QC Batches: 3175061,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	08/09/2013	After completion of data review and data reporting, a calculation error was discovered. Yield corrections had not been applied to sample results. The data was edited, recalculated and reviewed. Batch results are still within acceptance criteria.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	08/09/2013	The PM was notified of the data issues.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 8/9/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

7/23/2013 9:09:36 AM

Lot No., Due Date: J3F100411; 07/15/2013
Client, Site: 384868; A210440HANFORD HANFORD
QC Batch No., Method Test: 3175067; RTC99 Tc-99 by LSC
SDG, Matrix: W06570; WATER

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

6.0 Comments on any No response:

First Level _____ Date 7/23/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3175067

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

Comments on any "No" response: _____

Second Level Review: Sandra Seger Date: 7-28-13

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-025-008
		Page 1 of 1

Collector	F. M. Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-025	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2ZP1, MAY 2013	**Logbook No.**	HNF-N-506 56 / 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	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P3C2	N	W	5/29/13 ↓	0715 ↓	1x20-mL P	Activity Scan	6 Months	None
B2P3C2	N	W			2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON M008L	6 Months	None

J3E310409
W06570
Due

J3E310409

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
F. M. Hall	F. M. Hall	MAY 2 9 2013 1500	SSU #1		MAY 2 9 2013 1500
SSU-1		5/30/13 0900	Dave Floyd		5/30/13 0900
Dave Floyd		5/30/13 0950	J. Rock	J. Rock TAUL	5/30/13 0950

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED O 3/28/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-025-009
		Page 1 of 1

Collector	F. M. Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-025	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2ZP1, MAY 2013	**Logbook No.**	HNF-N-506-56/66	**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	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P3C3	N	W	5/29/13 ↓	1216 ↓	1x20-mL P	Activity Scan	6 Months	None
B2P3C3	N	W			2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON MCSN	6 Months	None

J3E310409
W06570

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
F. M. Hall		MAY 2 9 2013 1500	SSU #1		MAY 2 9 2013 1500
Relinquished By		Date/Time	Received By		Date/Time
SSU-1		5/30/13 0900	Dave Floyd		5/30/13 0900
Relinquished By		Date/Time	Received By		Date/Time
Dave Floyd		5/30/13 0950	J. Bock Jeak TALR		5/30/13 0950
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 3/28/2013

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5-30-13 / 0950 Container GM Screen Result: (Airlock) .5 cpm Initials [BS]
Sample GM Screen Result (Sample Receiving) .4 cpm Initials [BS]

Client: QbD SDG #: W0165N0 SAF #: I13-025 NA [ ]

Lot Number: J3E310409

Chain of Custody # I13-025-008, I13-025-009

Shipping Container ID or Air Bill Number : Hand Del. NA [BS]

Samples received inside shipping container/cooler/box Yes [BS] 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 [BS]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BS]
3. Cooler temperature: _____ °C NA [BS]
4. Vermiculite/packing materials is NA [BS] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BS] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 x vial 20; 4 x 4oz
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BS]
9. Samples have: ____tape ____hazard labels [BS] custody seals [BS] appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) [BS] I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
[BS] are in good condition ____are leaking ____are broken
____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [BS] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BS]
14. Description of anomalies (include sample numbers): NA [BS] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [BS] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: WI/A

[ ] Client/Courier denied temperature check. [BS] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Jamie Bock Date: 5-30-13

Client Notification needed? Yes [ ] No [BS] Date: _____
By: _____
Person contacted: _____

[BS] No action necessary, process as is

Project Manager Sandra Segura Date 5-31-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-023-073
		Page 1 of 1

Collector	F. M. Hall	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-023	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	100KR4, MAY 2013	**Logbook No.**	HNF-N-506 56 / 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	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P250	N	W	5/29/13 ↓	0908 ↓	1x20-mL P	Activity Scan	6 Months	None
B2P250	N	W			2x1-L G/P	C14_LSC: COMMON M005P	6 Months	None

J3E310410

W06570

J3E310410

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
F. M. Hall		MAY 2 9 2013 1500	SSU #1		MAY 2 9 2013 1500
Relinquished By		Date/Time	Received By		Date/Time
SSU-1		5/30/13 0900	Dave Floyd		5/30/13 0900
Relinquished By		Date/Time	Received By		Date/Time
Dave Floyd		5/30/13 0950	J. Bock / Bock TALK		5/30/13 0950
Relinquished By		Date/Time	Received By		Date/Time

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 3/25/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-023-074
		Page 1 of 1

Collector	F. M. Hall	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I13-023	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	100KR4, MAY 2013	Logbook No.	HNF-N-506 56/66	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	CERCLA	Priority: 30 Days	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P251	N	W	5/29/13	0908	1x20-mL P	Activity Scan	6 Months	None
B2P251	N	W	↓	↓	2x1-L G/P	C14_LSC: COMMON M0080	6 Months	None

J3E310410
W06570

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
F. M. Hall		MAY 2 9 2013 1500	SSU #1		MAY 2 9 2013 1500
Relinquished By		Date/Time	Received By		Date/Time
SSU-1		5/30/13 0900	Dave Floyd		5/30/13 0900
Relinquished By		Date/Time	Received By		Date/Time
Dave Floyd		5/30/13 0950	J. Bock / Bock TAL		5/30/13 0950
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 3/25/2013

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5-30-13 / 0950 Container GM Screen Result: (Airlock) .5 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) .4 cpm Initials [ ]

Client: PBW SDG #: WD6570 SAF #: I13-023 NA [ ]

Lot Number: J3E310410

Chain of Custody # I13-023-073, I13-023-074

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

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; 4 x 1L
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
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Susie Koch Date: 5-30-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary; process as is

Project Manager Sandra Lopez Date 5-31-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-021
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 55 / 54	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P890	N	W	JUN 04 2013	0904	1x20-mL P	Activity Scan	6 Months	None
B2P890	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P890	N	W	JUN 04 2013	0904	2x1-L G/P	SE79_SEP_IE_LSC: COMMON M02L=H	6 Months	HNO3 to pH <2

J3F050438
SDG-W06510

J3F050438

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
SCOTT KING		JUN 04 2013 1510	SGU #1		JUN 04 2013 1510
SGU #1		6-5-13 0715	FM HALL		6-5-13
FM HALL		6-5-13 1100	J. Rock	ROCK TALK	6-5-13 1100

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED O 4/30/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-022
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 55 / 54	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P891	N	W	JUN 0 4 2013	0924	1x20-mL P	Activity Scan	6 Months	None
B2P891	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P891	N	W	JUN 0 4 2013	0924	2x1-L G/P	SE79_SEP_IE_LSC: COMMON M026J	6 Months	HNO3 to pH <2

J3F050438
W0650

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
	SCOTT KING	JUN 0 4 2013 1510		SSU #1	JUN 0 4 2013 1510
Relinquished By	6-5-13 SSU #1	Date/Time 0715 6-5-13	Received By	FM Hall	Date/Time 0715 6-5-13
Relinquished By	FM Hall	Date/Time 6-5-13 1100	Received By	J. Fox Fedex TAG — 1100	Date/Time 6-5-13
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 4/30/2013

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-023
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 55 /54	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P893	N	W	JUN 04 2013	1053	1x20-mL P	Activity Scan	6 Months	None
B2P893	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON M026K	6 Months	None

J3F050438
W06570

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SCOTT KING	SCOTT KING		JUN 04 2013 1510	SSU #1			JUN 04 2013 1510
SSU #1			6-5-13 0715	F M HALL			6-5-13 0715
F M HALL			6-5-13 1100	J. BOCK TALL			6-5-13 1100
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

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Sample Check-in List

Date/Time Received: 6-5-13 1100 Container GM Screen Result: (Airlock) 80 cpm Initials [BS]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [BS]

Client: ADW SDG #: W0L570 SAF #: IB-028 NA [ ]

Lot Number: J3F050438

Chain of Custody # IB-028-021; 022; 023

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

Samples received inside shipping container/cooler/box Yes [BS] 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 [BS]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BS]
3. Cooler temperature: _____ °C NA [BS]
4. Vermiculite/packing materials is NA [BS] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BS] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 3
7. Containers received: 3 x vial 20; 4 x 4P; 6 x 4P
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BS]
9. Samples have: ____tape ____hazard labels [BS] custody seals [BS] appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) [BS] I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
[BS] are in good condition ____are leaking ____are broken
____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [BS] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BS]
14. Description of anomalies (include sample numbers): NA [BS]
15. Sample Location, Sample Collector Listed on COC? * Yes [BS] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BS] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Jason Bock Date: 6-5-13

Client Notification needed? Yes [ ] No [BS] Date: _____
By: _____
Person contacted: _____

[BS] No action necessary; process as is

Project Manager Sandra Segura Date 6-5-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-006-059
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, JUNE 2013	**Logbook No.**	HNF-N-506 55 /54	**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:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2P967	N	W	JUN 04 2013	1255	1x20-mL P	Activity Scan	6 Months	None
B2P967	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P967	N	W	JUN 04 2013	1255	2x1-L G/P	SE79_SEP_IE_LSC: COMMON mo26L	6 Months	HNO3 to pH <2

J3F050439
W06570

J3F050439

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	SCOTT KING		JUN 04 2013 1510	SSU #1			JUN 04 2013 1510
Relinquished By			Date/Time 0715	Received By			Date/Time 0715
SSU #1			6-5-13	FM Hall			6-5-13
Relinquished By			Date/Time	Received By			Date/Time
FM Hall			6-5-13 1100	J. Bock	Bock TALK	1100	6-5-13
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-006-060
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, JUNE 2013	**Logbook No.**	HNF-N-506 55 / 54	**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:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P972	N	W	JUN 04 2013	1427	1x20-mL P	Activity Scan	6 Months	None
B2P972	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P972	N	W	JUN 04 2013	1427	2x1-L G/P	SE79_SEP_IE_LSC: COMMON mo2bm	6 Months	HNO3 to pH <2

J3F050439
W06510

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	SCOTT KING		JUN 04 2013 1510	SSH #1			JUN 04 2013 1510
Relinquished By			Date/Time	Received By			Date/Time
SSH #1			6-5-13 1515	FM Hall			6-5-13 1515
Relinquished By			Date/Time	Received By			Date/Time
FM Hall			6-5-13 1100	J. Bock	J. Bock	TALR	1100 6-5-13
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

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Sample Check-in List

Date/Time Received: 6-5-13 / 1100 Container GM Screen Result: (Airlock) 50 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: ARW SDG #: 480650 SAF #: W W13-00L NA [ ]
(480650-3)

Lot Number: 13F0504391

Chain of Custody # W13-00L-000059

Shipping Container ID or Air Bill Number : hand delivered NA [ ]

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; 4 x 4p; 4 x 4p
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
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Date: 6-5-13

Client Notification needed? Yes [ ] No [ ] Date:
By:
Person contacted:

[ ] No action necessary; process as is

Project Manager Date 6-5-13

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-017
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 55 /56	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P884	N	W	JUN 05 2013	0730	1x20-mL P	Activity Scan	6 Months	None
B2P884	N	W	↓	↓	2x1-L G/P	C14_LSC: COMMON	6 Months	None
B2P884	N	W	JUN 05 2013	0730	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON MOLYBDENUM	6 Months	None

J3F050410
WO6510

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SCOTT KING	Scott King		JUN 05 2013 1325	J. Bock	Jack Tack		JUN 05 2013 1325
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-018
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 50 / 51	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P885	N	W	JUN 05 2013	0928	1x20-mL P	Activity Scan	6 Months	None
B2P885	N	W	↓	↓	2x1-L G/P	C14_LSC: COMMON	6 Months	None
B2P885	N	W	JUN 05 2013	0928	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None

J3F050440
W06570

J3F050440

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SCOTT KING			JUN 05 2013 1325	J. Lock			JUN 05 2013 1325
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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TestAmerica
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Sample Check-in List

Date/Time Received: 6-5-13 / 1325 Container GM Screen Result: (Airlock) 60 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: PSW SDG #: W06510 SAF #: I13-028 NA [ ]

Lot Number: J3F050440

Chain of Custody # I13-028-017, 018

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

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 4p, 4 x 4p
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 _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Lori Beck Date: 6-5-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary, process as is

Project Manager Sandra Legons Date 6-5-13

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-006-053
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, JUNE 2013	**Logbook No.**	HNF-N-506 55 /56	**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:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2P928	N	W	JUN 05 2013	0800	1x20-mL P	Activity Scan	6 Months	None
B2P928	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P928	N	W	JUN 05 2013	0800	2x1-L G/P	SE79_SEP_IE_LSC: COMMON M026-4	6 Months	HNO3 to pH <2

J3F050442
W065N0

J3F050442

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	SCOTT KING		JUN 05 2013 1325	J. Bock			JUN 05 2013
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-006-054
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, JUNE 2013	**Logbook No.**	HNF-N-506 55 / 54	**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:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2P929	N	W	JUN 05 2013	1120	1x20-mL P	Activity Scan	6 Months	None
B2P929	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2P929	N	W	JUN 05 2013	1120	2x1-L G/P	SE79_SEP_IE_LSC: COMMON m02656	6 Months	HNO3 to pH <2

J3F050442
W06570

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	SCOTT KING		JUN 05 2013 1325	J. Hock	Hock TALK		JUN 05 2013 1325
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

TestAmerica
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Sample Check-in List

Date/Time Received: 6-5-13 / 1325 Container GM Screen Result: (Airlock) 600 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: PEW SDG #: W0650 SAF #: W13-006 NA [ ]

Lot Number: J3F050442

Chain of Custody # W13-006-053; 054

Shipping Container ID or Air Bill Number : hand delivered NA [ ]

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: 2xVial 20; 4x40; 4x40
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
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: [signature] Date: 6-5-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary; process as is

Project Manager Sandra Legan Date 6-5-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-006-155
		Page 1 of 1

Collector	DAVE FLOYD	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, JUNE 2013	**Logbook No.**	HNF-N-506 54 / 78	**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** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2PB89	N	W	JUN 05 2013	0941	1x20-mL P	Activity Scan	6 Months	None
B2PB89	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B2PB89	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: COMMON M028J	6 Months	HCl to pH <2

J3F100411
W06510

J3F100411

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DAVE FLOYD			JUN 05 2013 1445	SSU-1			JUN 05 2013 1445
SSU #1			6-6-13 0830	FM Hall			6-6-13 0830
FM Hall			6-6-13 1355	J. Bock	J Bock	TAUR	6-6-13 1355

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-006-157
		Page 1 of 1

Collector	DAVE FLOYD	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, JUNE 2013	**Logbook No.**	HNF-N-506 54 / 78-79	**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 **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2PB97	N	W	JUN 05 2013	13:31	1x20-mL P	Activity Scan	6 Months	None
B2PB97	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: COMMON M028K	6 Months	HCl to pH <2

J3F100411

WO6570

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DAVE FLOYD			JUN 05 2013 1445	SSU-1			JUN 05 2013 1445
SSU #1			6-6-13 0830	F M HALL			6-6-13 0830
F M HALL			6-6-13 1355	J. Beck	J. Beck	TAUR	6-6-13 1355

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 4/17/2013

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 6-6-13 / 1355 Container GM Screen Result: (Airlock) 60 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: PLW SDG #: W0165N0 SAF #: 513-0006 NA [ ]

Lot Number: J3F100411

Chain of Custody # 513-0006-155; 157

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

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: 2x Vial 20; 6x 4P; 2x 4P
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 ____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 6-10-13

Client Notification needed? Yes [ ] No [ ] Date: ____
By: ____
Person contacted: ____

[ ] No action necessary; process as is

Project Manager Sandra Lopez Date 6-12-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-006-051
		Page 1 of 1

Collector	SCOTT KING	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, JUNE 2013	**Logbook No.**	HNF-N-506 56 /58	**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:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
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
B2P8Y1	N		JUN 0 6 2013	0947	1x20-mL P	Activity Scan	6 Months	None
B2P8Y1	N	W	√	√	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON MOD8N	6 Months	None

J3F100413
W06570

J3F100413

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
	SCOTT KING	JUN 0 6 2013 1200			JUN 0 6 2013 1200
		6-6-13 1355		J. Bock Bock TAUR	6-6-13 1355

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PRINTED O 6/3/2013

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 6-6-13 / 1355 Container GM Screen Result: (Airlock) 60 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: Plow SDG #: W06570 SAF #: W13-006 NA [ ]

Lot Number: J3F100413

Chain of Custody # W13-006-051

Shipping Container ID or Air Bill Number : Hand Del. NA [ ]

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): 1
7. Containers received: 1 x Vial 20; 2 x 4oz
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 ____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 6-10-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary, process as is

Project Manager Sandra Segura Date 6-12-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-028-016
		Page 1 of 1

Collector	Juan Aguilar	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-028	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20 -
Project Title	2UP1, JUNE 2013	**Logbook No.**	HNF-N-506 56e / 74	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P882	N	W	6-10-13	1249	1x20-mL P	Activity Scan	6 Months	None
B2P882	N	W	6-10-13	1249	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON M04KY	6 Months	None

J3F120441
W0459N0

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Juan Aguilar		JUN 10 2013 1355	SSU #1			JUN 10 2013 1355
SSU #1			6-11-13 0915	Fulton			6-11-13 0915
Fulton			6-11-13 1143	J. Bock		TAR	6-11-13 1143

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

TestAmerica
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Sample Check-in List

Date/Time Received: 6-11-13 / 1143 Container GM Screen Result: (Airlock) 40 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: PGW SDG #: WD6570 SAF #: I13-028 NA [ ]

Lot Number: J3F120441

Chain of Custody # I13-0296-016

Shipping Container ID or Air Bill Number : hand delivered NA [SKS]

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 [SKS] *
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [SKS] *
3. Cooler temperature: _____ °C NA [SKS] *
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [SKS] *

*SKS 6-14-13 See #16

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1x vial 20; 2x 4L
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 _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: 6-11-13 Client carried bottles in by hand

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

N/A SKS 6-14-13

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 6-11-13

Client Notification needed? Yes [ ] No [SKS] Date: _____
By: _____
Person contacted: _____

[SKS] No action necessary; process as is

Project Manager Sandra Lagan Date 6-14-13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I13-024-013
		Page 1 of 1

Collector	Juan Aguilar	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	I13-024	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	2UP1, MAY 2013	**Logbook No.**	HNF-N-506 56/75	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2P394	N	W	6-11-13	1025	1x20-mL P	Activity Scan	6 Months	None
B2P394	N	W	6-11-13	1025	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON m042L	6 Months	None

J3F140413
W06570

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Juan Aguilar		JUN 11 2013	1132	SSU #1		JUN 11 2013	1132
SSU #1			6-12-13 0830	ARMcIntyre			6-12-13 0830
ARMcIntyre			6-12-13 1223	J. Bock			6-12-13 1223

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

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Sample Check-in List

Date/Time Received: 6-12-13 | 1223 Container GM Screen Result: (Airlock) 40 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [ ]

Client: PLW SDG #: W0U5N0 SAF #: I13-024 NA [ ]

Lot Number: 33F140413

Chain of Custody # I13-024-03

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

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): 1
7. Containers received: 1x Vial 20; 2x 4oz
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 _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Jean Beck Date: 6-12-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary; process as is

Project Manager Sandra Segura Date 6-14-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-006-154 Page 1 of 1

Collector	Juan Aguilar	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-006	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, JUNE 2013	**Logbook No.**	HNF-N-506 56 / 75, 76	**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** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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
B2PB84	N	W	6-11-13	1425	1x20-mL P	Activity Scan	6 Months	None
B2PB84	N	W	6-11-13	1425	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON M042Q	6 Months	None

J3F140416
W06590

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Juan Aguilar		JUN 1 1 2013	1500	SSU #1		JUN 1 1 2013	1500
SSU #1			6-12-13 0830	ARMENTYRE			6 12-13 0830
ARMENTYRE			6-12-13 1223	J. Bock	J. Bock	TALR	6-12-13 1223

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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A-6004-842 (REV 2)

AUGUST 26, 2013

REV. 2

TestAmerica
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Sample Check-in List

Date/Time Received: 6-12-13 | 1223 Container GM Screen Result: (Airlock) 40 cpm Initials [BS]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [BS]

Client: Plow SDG #: W0650 SAF #: 513-0006 NA [ ]

Lot Number: 33F1404116

Chain of Custody # 513-0006-154

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

Samples received inside shipping container/cooler/box Yes [BS] 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 [BS]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BS]
3. Cooler temperature: _____ °C NA [BS]
4. Vermiculite/packing materials is NA [BS] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BS] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1x Vial 20; 2x 4oz
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BS]
9. Samples have: ____tape ____hazard labels [BS] custody seals [BS] appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) [BS] I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
[BS] are in good condition ____are leaking ____are broken
____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [BS] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BS]
14. Description of anomalies (include sample numbers): NA [BS]
15. Sample Location, Sample Collector Listed on COC? * Yes [BS] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BS] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 6-12-13

Client Notification needed? Yes [ ] No [SKS] Date:
By:
Person contacted:

[SKS] No action necessary; process as is

Project Manager Sandra Lee Date 6-14-13

LS-023 Rev. 17, 05/13

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-012-171
		Page 1 of 1

Collector	DAVE FLOYD	**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 55/61	**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 **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

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	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MY46	N	W	6/12/13	0915	1x20-mL P	Activity Scan	6 Months	None
B2MY46	N	W	↓	↓	1x4-L G/P	GAMMALL_GS: List-1 (9) MOSAIC	6 Months	HNO3 to pH <2

411

J3F150411 6-15-13

W06570

J3F150411

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DAVE FLOYD			JUN 12 2013 1535	SSU#1			JUN 12 2013 1535
Relinquished By SSU#1			Date/Time 6-13-13 1000	Received By ARMENTROUT			Date/Time 6-13-13 1000
Relinquished By ARMENTROUT			Date/Time 6-13-13 1200	Received By J. Bock			Date/Time 6-13-13 1200
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 10/24/2012

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 6-13-13/1200 Container GM Screen Result: (Airlock) 40 cpm Initials[ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials[ ]

Client: Plow SDG #: WD6570 SAF #: 513-012 NA [ ]

Lot Number: J3F150411

Chain of Custody # 513-012-171

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

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): 1
7. Containers received: 1x vial 20, 1x4oz
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 _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Susie Rock Date: 6-13-13

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary; process as is

Project Manager Sandra Seger Date 6-17-13

LS-023 Rev. 17, 05/13

Page 1 of 1

PGW

7/2/2013 10:39:45 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Sep1 DT/Tm Tech:

Batch: 3175058 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: SannohS

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **M05AG-1-AA** J3F150411-1-SAMP 06/12/2013 09:15	2000.00g,in		2000.00g					100MP	100 Min	G18 ~~G18~~	2213 ~~1858~~	7/5/13 TB 7/3/13 TB	
			AmtRec: 1XVIAL20;1X4LP		#Containers: 2					Scr:	Alpha: -1.85E-05 uCi/Sa		Beta: 3.20E-04 uCi/Sa
2 **M05AG-1-AC-X** J3F150411-1-DUP 06/12/2013 09:15							I S.V			G19	2046		
			AmtRec: 1XVIAL20;1X4LP		#Containers: 2					Scr:	Alpha: -1.85E-05 uCi/Sa		Beta: 3.20E-04 uCi/Sa
3 **M07A0-1-AA-B** J3F240000-58-BLK 06/24/2013 14:21 pd	1999.90g,in		1999.90g							G19	1859		
			AmtRec:		#Containers: 1					Scr:	Alpha:		Beta:
4 **M07A0-1-AC-C** J3F240000-58-LCS 06/24/2013 14:21 pd	2000.00g,in		2000.00g	GSE1954 04/30/13,pd 07/15/00,r						G11	1859		
			AmtRec:		#Containers: 1					Scr:	Alpha:		Beta:

23925

TestAmerica Richland Wa.

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

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 4

Prep_SamplePrep v4.8.61

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Batch: 3175058 pCi/L
SEQ Batch, Test: None

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

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:

Comments: M05AG-SAMP "CommentsISV- Recount DUP On a Different Detector"

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

M05AG1AA-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
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:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

M07A01AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

M07A01AC-LCS:

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:--	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						

M05AG1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M07A01AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M07A01AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7/15/2013 11:59:24 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/15/2012, 7/20/2013, Batch: '3175058', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
	3175058						
AC			Rev1C	SannohS	7/2/2013 9:38:30 AM		
SC				mcginnist	IsBatched	6/25/2013 9:02:02 AM	ICOC_RADCALC v4.8.49
SC				SannohS	InPrep	7/2/2013 9:38:30 AM	RL-GAM-001 REVISION 3
SC				SannohS	Prep1C	7/3/2013 3:31:11 PM	RL-GAM-001 REVISION 3
SC				DawkinsO	InCnt1	7/3/2013 4:51:22 PM	RL-CI-007 REVISION 3
SC				carnesj	Rev1C	7/15/2013 11:59:04 AM	RL-DR-001 Rev 2
AC				SannohS	7/3/2013 3:31:11 PM		
AC				DawkinsO	7/3/2013 4:51:22 PM		
AC				carnesj	7/15/2013 11:59:04		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt:4

ICOCFractions v4.8.44

I129 PGW

7/10/2013 11:26:00 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Batch: 3175059 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On [Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M008L-1-AA J3E310409-1-SAMP 05/29/2013 07:15	3890.40g,in	3890.40g			ITA13101 07/05/13	30.9	200		LH	14:01		JH 7-19-13	
	AmtRec: 1XVIAL20;2X4LP		#Containers: 3										
	Scr: Alpha: -5.03E-04 uCi/Sa								Beta: 5.69E-05 uCi/Sa				
2 M008L-1-AC-X J3E310409-1-DUP 05/29/2013 07:15	3902.40g,in	3902.40g			ITA13102 07/05/13	29.8			L5	14:01		JH 7-19-13	
	AmtRec: 1XVIAL20;2X4LP		#Containers: 3										
	Scr: Alpha: -5.03E-04 uCi/Sa								Beta: 5.69E-05 uCi/Sa				
3 M008N-1-AA J3E310409-2-SAMP 05/29/2013 12:16	3874.70g,in	3874.70g			ITA13103 07/05/13	36.0			L4	1732		7/19/13HC	
	AmtRec: 1XVIAL20;2X4LP		#Containers: 3										
	Scr: Alpha: 1.76E-03 uCi/Sa								Beta: -1.99E-04 uCi/Sa				
4 M02GH-1-AA J3F050438-1-SAMP 06/04/2013 09:04	3828.70g,in	3828.70g			ITA13104 07/05/13	33.8			L5	1733		7/19/13HC	
	AmtRec: 1XVIAL20;2XLP,2X4LP		#Containers: 5										
	Scr: Alpha: 1.08E-03 uCi/Sa								Beta: 4.99E-04 uCi/Sa				
5 M02GJ-1-AA J3F050438-2-SAMP 06/04/2013 09:04	3857.30g,in	3857.30g			ITA13105 07/05/13	36.3			L4	2122		7/19/13DP	
	AmtRec: 1XVIAL20;2XLP,2X4LP		#Containers: 5										
	Scr: Alpha: 2.57E-03 uCi/Sa								Beta: -1.32E-03 uCi/Sa				
6 M02GK-1-AA J3F050438-3-SAMP 06/04/2013 10:53	3785.60g,in	3785.60g			ITA13106 07/05/13	35.4			L5	2123			
	AmtRec: 1XVIAL20;2X4LP		#Containers: 3										
	Scr: Alpha: 2.53E-04 uCi/Sa								Beta: -3.71E-04 uCi/Sa				
7 M02GL-1-AA J3F050439-1-SAMP 06/04/2013 12:55	3830.40g,in	3830.40g			ITA13107 07/05/13	34.6			L4	0118			
	AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5										
	Scr: Alpha: -2.78E-04 uCi/Sa								Beta: 1.78E-04 uCi/Sa				

TestAmerica Richland Wa.

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

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.61

7/10/2013 11:26:03 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AnalyDueDate: 07/15/2013

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

Batch: 3175059 **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:
8 M02GM-1-AA			3767.40g,in	3767.40g	ITA13108								
J3F050439-2-SAMP					07/05/13				33.5 200	L5	0119	7/19/20/3002	
06/04/2013 14:27			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5								
											Scr: Alpha: -1.03E-03 uCi/Sa		Beta: 6.05E-04 uCi/Sa
9 M02GN-1-AC			3590.90g,in	3590.90g	ITA13109								
J3F050440-1-SAMP					07/05/13				35.6	L4	1047	7/22/13HC	
06/05/2013 07:30			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5								
											Scr: Alpha: 5.87E-04 uCi/Sa		Beta: -6.78E-04 uCi/Sa
10 M02GP-1-AC			3838.30g,in	3838.30g	ITA13110				27-9-13				
J3F050440-2-SAMP					07/05/13				34.	L5	1048	7/22/13HC	
06/05/2013 09:28			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5				35.4				
											Scr: Alpha: -2.29E-03 uCi/Sa		Beta: 1.14E-03 uCi/Sa
11 M02G4-1-AA			3669.90g,in	3669.90g	ITA13111								
J3F050442-1-SAMP					07/05/13				34.3	L4	1416	7/22/13HC	
06/05/2013 08:00			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5								
											Scr: Alpha: -2.03E-03 uCi/Sa		Beta: 9.27E-04 uCi/Sa
12 M02G6-1-AA			3840.40g,in	3840.40g	ITA13112								
J3F050442-2-SAMP					07/05/13				35.9	L5	1418	7/22/13HC	
06/05/2013 11:20			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5								
											Scr: Alpha: 2.85E-03 uCi/Sa		Beta: 2.85E-04 uCi/Sa
13 M028J-1-AA			3741.50g,in	3741.50g	ITA13113								
J3F100411-1-SAMP					07/05/13				35.4	L4	1758	7/22/13HC	
06/05/2013 09:41			AmtRec: 1XVIAL20;3XLP;2X4LP		#Containers: 6								
											Scr: Alpha: 2.70E-03 uCi/Sa		Beta: -1.12E-03 uCi/Sa
14 M028N-1-AA			3787.40g,in	3787.40g	ITA13114								
J3F100413-1-SAMP					07/05/13				35.0	L5	1800	7/22/13HC	
06/06/2013 09:47			AmtRec: 1XVIAL20;2X4LP		#Containers: 3								
											Scr: Alpha: -4.55E-05 uCi/Sa		Beta: 3.85E-04 uCi/Sa

7/10/2013 11:26:06 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AnalyDueDate: 07/15/2013

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

Batch: 3175059 **WATER** **pCi/L**
SEQ Batch, Test: None

PM, Quote: SS , 57671

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
16 M04KX-1-AA			3578.20g,in	3578.20g	ITA13115	35.3		200		L4	2240	7/22/13	
J3F120441-1-SAMP					07/05/13								
06/10/2013 12:49			AmtRec: 1XVIAL20;2X4LP		#Containers: 3								
						Scr:	Alpha: 2.21E-04 uCi/Sa			Beta: -4.05E-04 uCi/Sa				
16 M042L-1-AA			3653.20g,in	3653.20g	ITA13116	36.0				L5	2241		
J3F140413-1-SAMP					07/05/13								
06/11/2013 10:25			AmtRec: 1XVIAL20;2X4LP		#Containers: 3								
						Scr:	Alpha: 4.25E-04 uCi/Sa			Beta: 1.13E-03 uCi/Sa				
17 M042Q-1-AA			3633.10g,in	3633.10g	ITA13117	36.2				L4	0318		
J3F140416-1-SAMP					07/05/13								
06/11/2013 14:25			AmtRec: 1XVIAL20;2X4LP		#Containers: 3								
						Scr:	Alpha: -8.31E-04 uCi/Sa			Beta: 8.74E-04 uCi/Sa				
18 M07A1-1-AA-B			3973.60g,in	3973.60g	ITA13118	32.7				L5	0318		
J3F240000-59-BLK					07/05/13								
06/24/2013 14:21 pd			AmtRec:		#Containers: 1								
						Scr:	Alpha:			Beta:				
19 M07A1-1-AC-C			3936.60g,in	3936.60g	ISD1565	35.1				L4	1039	7/23/13	
J3F240000-59-LCS					03/26/13								
06/24/2013 14:21 pd			AmtRec:		#Containers: 1								
						Scr:	Alpha:			Beta:				

7/24/2013 4:31:48 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/24/2012, 7/29/2013, Batch: '3175059', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
3175059							
AC			Rev1C	SannohS	7/10/2013 9:02:36		
SC				moginnist	IsBatched	6/25/2013 9:02:10 AM	ICOC_RADCALC v4.8.49
SC				SannohS	InPrep	7/10/2013 9:02:36 AM	RL-GAM-001 REVISION 3
SC				NortonJ	InSep1	7/18/2013 7:33:41 AM	RL-GAM-002 REVISION 3
SC				NortonJ	InCnt1	7/19/2013 10:33:52 AM	RL-CI-007 REVISION 3
SC				DawkinsO	CalcC	7/24/2013 1:36:56 AM	RL-CI-007 REVISION 3
SC				antonsonl	Rev1C	7/24/2013 4:31:38 PM	RL-DR-001 Rev 2
AC				NortonJ	7/18/2013 7:33:41		
AC				NortonJ	7/19/2013 10:33:52		
AC				DawkinsO	7/24/2013 1:36:56		
AC				antonsonl	7/24/2013 4:31:38 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

7/18/2013 11:21:41 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

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

AnalyDueDate: 07/15/2013

Batch: 3175060 **WATER** **pCi/L**
SEQ Batch, Test: None All Tests: 3175060 5SS3,

PM, Quote: SS , 57671

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

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **M008P-1-AA**			75.00g,in	75.00g									
J3E310410-1-SAMP													
05/29/2013 09:08			AmtRec: 1XVIAL20;2XLP	#Containers: 3					Scr:	Alpha: 3.46E-06 uCi/Sa		Beta: -1.14E-04 uCi/Sa	
2 **M008P-1-AC-X**			75.50g,in	75.50g									
J3E310410-1-DUP													
05/29/2013 09:08			AmtRec: 1XVIAL20;2XLP	#Containers: 3					Scr:	Alpha: 3.46E-06 uCi/Sa		Beta: -1.14E-04 uCi/Sa	
3 **M008Q-1-AA**			75.20g,in	75.20g									
J3E310410-2-SAMP													
05/29/2013 09:08			AmtRec: 1XVIAL20;2XLP	#Containers: 3					Scr:	Alpha: 3.36E-05 uCi/Sa		Beta: 7.83E-05 uCi/Sa	
4 **M02GN-1-AA**			74.70g,in	74.70g									
J3F050440-1-SAMP													
06/05/2013 07:30			AmtRec: 1XVIAL20;2XLP;2X4LP	#Containers: 5					Scr:	Alpha: 5.87E-04 uCi/Sa		Beta: -6.78E-04 uCi/Sa	
5 **M02GP-1-AA**			75.40g,in	75.40g									
J3F050440-2-SAMP													
06/05/2013 09:28			AmtRec: 1XVIAL20;2XLP;2X4LP	#Containers: 5					Scr:	Alpha: -2.29E-03 uCi/Sa		Beta: 1.14E-03 uCi/Sa	
6 **M07A2-1-AA-B**			74.90g,in	74.90g									
J3F240000-60-BLK													
06/24/2013 14:21 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
7 **M07A2-1-AC-C**			75.10g,in	75.10g	CSB1279								
J3F240000-60-LCS					07/15/13,pd 11/08/12,r								
06/24/2013 14:21 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

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

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.61

7/18/2013 11:21:45 AM

Sample Preparation/Analysis

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

Balance Id:

Pipet #: _____

AnalyDueDate: 07/15/2013

Sep1 DT/Tm Tech:

Batch: 3175060 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M07A2-1-AD-BN													
J3F240000-60-IBLK													
06/24/2013 14:21 pd			AmtRec:	#Containers: 1						Scr:	Alpha:		Beta:

Sample Preparation/Analysis

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

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

AnalyDueDate: 07/15/2013

Batch: 3175060 pCi/L
SEQ Batch, Test: None

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

Comments:

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

M008P1AA-SAMP Constituent List:
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20
M07A21AA-BLK:
C-14 RDL:2.00E+02 pCi/L LCL: UCL: RPD:
M07A21AC-LCS:
C-14 RDL:200 pCi/L LCL:70 UCL:130 RPD:20
M07A21AD-IBLK:
C-14 RDL:2.00E+02 pCi/L LCL: UCL: RPD:

M008P1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07A21AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07A21AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07A21AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7/26/2013 2:20:09 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/26/2012, 7/31/2013, Batch: '3175060', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
3175060							
AC			Rev1C	WindischT	7/18/2013 11:25:16		
SC				mcginnist	IsBatched	6/25/2013 9:02:15 AM	ICOC_RADCALC v4.8.49
SC				WindischT	Sep1C	7/18/2013 11:25:16 AM	RL-LSC-008 REVISION 3
SC				CarnesH	InCnt1	7/18/2013 11:40:29 AM	RL-CI-005 REVISION 3
SC				CarnesH	CalcC	7/23/2013 2:05:47 PM	RL-CI-005 REVISION 3
SC				antonsonl	Rev1C	7/26/2013 2:19:58 PM	RL-DR-001 Rev 2
AC				CarnesH	7/18/2013 11:40:29		
AC				CarnesH	7/23/2013 2:05:47 PM		
AC				antonsonl	7/26/2013 2:19:58 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.44

7/9/2013 10:21:48 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Sep1 DT/Tm Tech:

Batch: 3175061 WATER pCi/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: WagarK

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **M02GH-1-AC**			200.60g,in	200.60g	SETA0955								
J3F050438-1-SAMP					07/17/12								
06/04/2013 09:04			AmtRec: 1XVIAL20;2XLP,2X4LP		#Containers: 5				Scr:	Alpha: 1.08E-03 uCi/Sa		Beta: 4.99E-04 uCi/Sa	
2 **M02GH-1-AD-X**			200.20g,in	200.20g	SETA0956								
J3F050438-1-DUP					07/17/12								
06/04/2013 09:04			AmtRec: 1XVIAL20;2XLP,2X4LP		#Containers: 5				Scr:	Alpha: 1.08E-03 uCi/Sa		Beta: 4.99E-04 uCi/Sa	
3 **M02GJ-1-AC**			200.80g,in	200.80g	SETA0957								
J3F050438-2-SAMP					07/17/12								
06/04/2013 09:04			AmtRec: 1XVIAL20;2XLP,2X4LP		#Containers: 5				Scr:	Alpha: 2.57E-03 uCi/Sa		Beta: -1.32E-03 uCi/Sa	
4 **M02GL-1-AC**			201.80g,in	201.80g	SETA0958								
J3F050439-1-SAMP					07/17/12								
06/04/2013 12:55			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5				Scr:	Alpha: -2.78E-04 uCi/Sa		Beta: 1.78E-04 uCi/Sa	
5 **M02GM-1-AC**			200.70g,in	200.70g	SETA0959								
J3F050439-2-SAMP					07/17/12								
06/04/2013 14:27			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5				Scr:	Alpha: -1.03E-03 uCi/Sa		Beta: 6.05E-04 uCi/Sa	
6 **M02G4-1-AC**			201.00g,in	201.00g	SETA0960								
J3F050442-1-SAMP					07/17/12								
06/05/2013 08:00			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5				Scr:	Alpha: -2.03E-03 uCi/Sa		Beta: 9.27E-04 uCi/Sa	
7 **M02G6-1-AC**			200.30g,in	200.30g	SETA0961								
J3F050442-2-SAMP					07/17/12								
06/05/2013 11:20			AmtRec: 1XVIAL20;2XLP;2X4LP		#Containers: 5				Scr:	Alpha: 2.85E-03 uCi/Sa		Beta: 2.85E-04 uCi/Sa	

7/9/2013 10:21:50 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Sep1 DT/Tm Tech:

Batch: 3175061 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WagarK

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 **M07A3-1-AA-B**			200.10g,in	200.10g	SETA0962								
J3F240000-61-BLK					07/17/12								
06/24/2013 14:21 pd			AmtRec:		#Containers: 1								
									Scr:	Alpha:			Beta:
9 **M07A3-1-AC-BN**													
J3F240000-61-IBLK													
06/24/2013 14:21 pd			AmtRec:		#Containers: 1								
									Scr:	Alpha:			Beta:

Sample Preparation/Analysis

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

AnalyDueDate: 07/15/2013

Batch: 3175061 pCi/L
SEQ Batch, Test: None

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

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

Comments:

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

M02GH1AC-SAMP Constituent List:
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:
M07A31AA-BLK:
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:
M07A31AC-IBLK:
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:

M02GH1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07A31AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07A31AC-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

8/9/2013 10:29:41 AM

ICOC Fraction Transfer/Status Report

AMENDE

ByDate: 8/9/2012, 8/14/2013, Batch: '3175061', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
3175061							
AC			InRev1	WagarK	7/9/2013 10:21:56		
SC				mcginnist	IsBatched	6/25/2013 9:02:24 AM	ICOC_RADCALC v4.8.49
SC				WagarK	Prep1C	7/9/2013 10:21:56 AM	RL-PRP-004 REVISION 2
SC				JorgensonD	Sep2C	7/25/2013 4:51:46 PM	RL-LSC-012 REVISION 3
SC				DawkinsO	InCnt1	7/25/2013 6:21:02 PM	RL-CI-005 REVISION 3
SC				NortonJ	CalcC	7/30/2013 2:40:34 PM	RL-CI-005 REVISION 3
SC				mcginnist	Rev1C	7/31/2013 7:33:18 AM	RL-DR-001 Rev 2
SC				ICOC	IsRpt	8/1/2013 4:30:27 AM	ICOC_RADCALC v4.8.17
SC				DawkinsO	InRev1	8/8/2013 3:14:28 AM	RL-CI-005 REVISION 3
AC				**JorgensonD**	7/25/2013 4:51:46 PM		
AC				**DawkinsO**	7/25/2013 6:21:02 PM		
AC				**NortonJ**	7/30/2013 2:40:34 PM		
AC				**mcginnist**	7/31/2013 7:33:18		
AC				**DawkinsO**	8/8/2013 3:14:28 AM		

AC: Accepting Entry; SC: Status Change

7/8/2013 11:59:33 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AM Tc-99 Prp/Sep LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/15/2013

Sep1 DT/Tm Tech:

Batch: 3175067 WATER pCi/L
SEQ Batch, Test: None All Tests: 3175059 BNTB, 3175067 AMS5,

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech: WagarK

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M028J-1-AC			125.50g,in	125.50g									
J3F100411-1-SAMP													
06/05/2013 09:41			AmtRec: 1XVIAL20;3XLP;2X4LP	#Containers: 6					Scr:	Alpha: 2.70E-03 uCi/Sa		Beta: -1.12E-03 uCi/Sa	
2 M028J-1-AD-X			125.70g,in	125.70g									
J3F100411-1-DUP													
06/05/2013 09:41			AmtRec: 1XVIAL20;3XLP;2X4LP	#Containers: 6					Scr:	Alpha: 2.70E-03 uCi/Sa		Beta: -1.12E-03 uCi/Sa	
3 M028K-1-AA			125.60g,in	125.60g									
J3F100411-2-SAMP													
06/05/2013 13:31			AmtRec: 1XVIAL20;3XLP	#Containers: 4					Scr:	Alpha: 4.51E-04 uCi/Sa		Beta: -5.93E-04 uCi/Sa	
4 M028K-1-AC-S			125.20g,in	125.20g	TCSG3388								
J3F100411-2-MS					04/25/13,pd 07/01/05,r								
06/05/2013 13:31			AmtRec: 1XVIAL20;3XLP	#Containers: 4					Scr:	Alpha: 4.51E-04 uCi/Sa		Beta: -5.93E-04 uCi/Sa	
5 M07CP-1-AA-B			125.10g,in	125.10g									
J3F240000-67-BLK													
06/24/2013 14:21 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
6 M07CP-1-AC-C			125.60g,in	125.60g	TCSE2744								
J3F240000-67-LCS					06/15/13,pd 07/01/05,r								
06/24/2013 14:21 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
7 M07CP-1-AD-BN													
J3F240000-67-IBLK													
06/24/2013 14:21 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

Sample Preparation/Analysis

AM Tc-99 Prp/Sep LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 07/15/2013

Batch: 3175067 pCi/L
SEQ Batch, Test: None

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

Comments:

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

M028J1AC-SAMP Constituent List:
Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20
M028K1AC-MS:

M07CP1AA-BLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:
M07CP1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
M07CP1AD-IBLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

M028J1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M028K1AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07CP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07CP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M07CP1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7/23/2013 9:08:39 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/23/2012, 7/28/2013, Batch: '3175067', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
3175067							
AC			Rev1C	WagarK	7/8/2013 11:57:49		
SC				mcginnist	IsBatched	6/25/2013 9:02:29 AM	ICOC_RADCALC v4.8.49
SC				WagarK	Prep1C	7/8/2013 11:57:49 AM	RL-PRP-004 REVISION 2
SC				WagarK	Prep1C	7/8/2013 12:37:20 PM	RL-PRP-004 REVISION 2
SC				JorgensonD	Sep2C	7/17/2013 5:20:12 PM	RL-LSC-013 REVISION 2
SC				DawkinsO	InCnt1	7/17/2013 6:17:22 PM	RL-CI-005 REVISION 3
SC				CarnesH	CalcC	7/22/2013 11:10:28 AM	RL-CI-008 REVISION 3
SC				CarnesH	CalcC	7/22/2013 12:34:57 PM	RL-CI-005 REVISION 3
SC				mcginnist	Rev1C	7/23/2013 9:08:29 AM	RL-DR-001 Rev 2
AC				WagarK	7/8/2013 12:37:20 PM		
AC				JorgensonD	7/17/2013 5:20:12 PM		
AC				DawkinsO	7/17/2013 6:17:22 PM		
AC				CarnesH	7/22/2013 11:10:28		
AC				CarnesH	7/22/2013 12:34:57		
AC				mcginnist	7/23/2013 9:08:29		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.44