Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica TARL

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

Data Package Contains _____ Pages

Report Nbr: 48759

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06210	S11-007	B2F3Y6	J1H050496-1	MLFN81AA	9MLFN810	1230078
		B2F3W6	J1H050496-2	MLFN91AA	9MLFN910	1230078
	W11-008	B2FL91	J1H050498-1	MLFP01AA	9MLFP010	1230078
		B2FL91	J1H050498-1	MLFP01AC	9MLFP010	1230080
		B2FL92	J1H050498-2	MLFP11AA	9MLFP110	1230078
		B2FL92	J1H050498-2	MLFP11AC	9MLFP110	1230080
	S11-007	B2F5B5	J1H050499-1	MLFP31AA	9MLFP310	1214238
		B2F5B6	J1H050499-2	MLFP41AA	9MLFP410	1230085
		B2F5B7	J1H050499-3	MLFP51AA	9MLFP510	1230085
		B2F5B8	J1H050499-4	MLFP61AA	9MLFP610	1230085
	W11-008	B2FL56	J1H090497-1	MLHLL1AA	9MLHLL10	1230080
		B2FL00	J1H090497-2	MLHMN1A	9MLHMN10	1230078
		B2FL00	J1H090497-2	MLHMN1A	9MLHMN10	1230080
		B2FL16	J1H100413-1	MLH551AA	9MLH5510	1230080
		B2FL61	J1H100449-1	MLJM01AA	9MLJM010	1230078

Comments:

RECEIVED
JAN 17 2012
EDMC

OCTOBER 13, 2011

0100936

Report Nbr: 48759

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06210	W11-008	B2FL61	J1H100449-1	MLJM01AC	9MLJM010	1230080
		B2FL51	J1H100449-2	MLJM22AA	9MLJM220	1277187
		B2FLD5	J1H100449-3	MLJM51AA	9MLJM510	1230080
	I11-037	B2FK72	J1H110473-1	MLKL41AA	9MLKL410	1223177
	I11-039	B2FKN5	J1H110499-1	MLKR11AA	9MLKR110	1230082
		B2FKN5	J1H110499-1	MLKR11AC	9MLKR110	1230084
		B2FKN5	J1H110499-1	MLKR11AD	9MLKR110	1230078
		B2FKN5	J1H110499-1	MLKR11AE	9MLKR110	1230083
		B2FKN6	J1H110499-2	MLKTP1AA	9MLKTP10	1230082
		B2FKN6	J1H110499-2	MLKTP1AC	9MLKTP10	1230084
		B2FKN6	J1H110499-2	MLKTP1AD	9MLKTP10	1230078
		B2FKN6	J1H110499-2	MLKTP1AE	9MLKTP10	1230083
		B2FKL0	J1H120507-1	MLL7P1AA	9MLL7P10	1230078
		B2FKL1	J1H120507-2	MLL7Q1AA	9MLL7Q10	1230078
	I11-038	B2FKC2	J1H150413-1	MLM7V1AA	9MLM7V10	1230078
		B2FKC3	J1H150413-2	MLM7W1A	9MLM7W10	1230078
		B2FKH2	J1H150413-3	MLM8H1AA	9MLM8H10	1230078
		B2FKJ0	J1H150413-4	MLM8J1AA	9MLM8J10	1230084
		B2FKJ0	J1H150413-4	MLM8J1AC	9MLM8J10	1230078
		B2FKJ1	J1H150413-5	MLM8K1AA	9MLM8K10	1230084
		B2FKJ1	J1H150413-5	MLM8K1AC	9MLM8K10	1230078

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

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

October 12, 2011

Attention: Scot Fitzgerald

SAF Number	:	S11-007, W11-008, I11-037, I11-038, I11-039
Date SDG Closed	:	August 11, 2011
Number of Samples	:	Twenty-four (24)
Sample Type	:	Water
SDG Number	:	W06210
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between August 3, 2011 and August 11, 2011 twenty-four 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
B2F3Y6	MLFN8	8/3/11	WATER
B2F3W6	MLFN9	8/3/11	WATER
B2FL91	MLFP0	8/3/11	WATER
B2FL92	MLFP1	8/3/11	WATER
B2F5B5	MLFP3	8/4/11	WATER
B2F5B6	MLFP4	8/4/11	WATER
B2F5B7	MLFP5	8/4/11	WATER
B2F5B8	MLFP6	8/4/11	WATER
B2FL56	MLHLL	8/9/11	WATER
B2FL00	MLHMN	8/9/11	WATER
B2FL16	MLH55	8/8/11	WATER
B2FL61	MLJM0	8/10/11	WATER
B2FL51	MLJM2	8/10/11	WATER
B2FLD5	MLJM5	8/10/11	WATER

CH2M Hill Plateau Remediation Company
October 12, 2011

B2FK72	MLKL4	8/11/11	WATER
B2FKN5	MLKR1	8/10/11	WATER
B2FKN6	MLKTP	8/10/11	WATER
B2FKL0	MLL7P	8/11/11	WATER
B2FKL1	MLL7Q	8/11/11	WATER
B2FKC2	MLM7V	8/11/11	WATER
B2FKC3	MLM7W	8/11/11	WATER
B2FKH2	MLM8H	8/11/11	WATER
B2FKJ0	MLM8J	8/11/11	WATER
B2FKJ1	MLM8K	8/11/11	WATER

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Alpha Spectroscopy
Neptunium-237 by method RL-ALP-013
Gamma Spectroscopy
Iodine-129 (LL) by method RL-GAM-002
Liquid Scintillation Counting
Selenium-79 by method RL-LSC-012
Technetium-99 by method RL-LSC-013
Mid Level Tritium by method RL-LSC-005
Carbon-14 by method RL-LSC-008
Laser Induced Phosphorimetry
Total Uranium by method RL-KPA-003
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

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October 12, 2011

V. Comments

Alpha Spectroscopy

Neptunium-237 by method RL-ALP-013:

The LCS, batch blank, sample and sample duplicate (B2FKN5) results are within contractual requirements.

Gamma Spectroscopy

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

Sample B2FL61 did not meet the CRDL due to a reduced aliquot size. The aliquot size was reduced because of the activity detected during the screening process. Except as noted, the LCS, batch blank, samples and sample duplicate (B2F3Y6) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by method RL-LSC-013:

The matrix spike recovery was high in the original batch. TARL was instructed to reanalyze the sample and matrix spike (refer to SIR NUM SDR11-417). Sample B2FL51 and matrix spike sample B2FL51 were reanalyzed with reduced aliquots. These samples did not meet the CRDL due to the reduced aliquots. The sample results exceed the MDA. Except as noted, the LCS, batch blank, samples, sample duplicate (B2FL61), and sample matrix spike (B2FL51) results are within contractual requirements.

Selenium-79 by method RL-LSC-012:

There is no LCS for selenium-79. Except as noted, batch blank, samples and sample duplicate (B2FKN6) results are within contractual requirements.

Mid Level Tritium by method RL-LSC-005:

TestAmerica Richland proposed to report W06210 without the mid level tritium results. The client accepted the proposed resolution (SIR NUM: SDR11-399) on September 6, 2011. The mid level tritium results completed before the report for W06210 was sent. Therefore the final report for W06210 will include the mid level tritium results.

To save counting time on the detector SDGs W06203I, W06209I and W06210 were analyzed together. On the 6/29/11 bi-weekly phone the client gave TARL permission to batch SDGs together. An SIR regarding this issue is not included in this report per client instructions (refer to the 7/21/11 email included in this report).

Except as noted, t he LCS, batch blank, sample and sample duplicate (B2BTC5) results are within contractual requirements.

Carbon-14 by method RL-LSC-008:

The LCS, batch blank, samples and sample duplicate (B2FKJ0) results are within contractual requirements.

Total Uranium

Total Uranium by method RL-KPA-003:

The LCS, batch blank, samples, sample duplicate (B2F5B6), and sample matrix spike (B2F5B7) results are within contractual requirements.

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October 12, 2011

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (B2FK72), sample matrix spike (B2FK72), and matrix spike duplicate (B2FK72) 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	SDR11-399
REV NUM	0
DATE INITIATED	9/6/2011

SAMPLE EVENT INFORMATION

SAF NUM(S)	S11-007, S11-003
OPERABLE UNIT(S)	NONE
PROJECT(S)	SURV11
SAMPLE EVENT TITLE(S)	SURV11
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	5
SAMPLE NUMBERS	B2BT66, B2BTC5, B2F5B3, B2F5B4, B2F5B5
SAMPLE MATRIX	WATER
COLLECTION DATE	7/26/2011 - 8/4/2011
SDG NUM	W06203, W06210, W06209

ISSUE BACKGROUND

CLASS	Laboratory Issue
TYPE	Other Laboratory Issue (Specify)
DESCRIPTION	The mid-level tritium samples will not be counted by the SDGs' due dates. This is due to the number of mid-level tritium samples received and the 1500-minute count time per sample.

DISPOSITION

DESCRIPTION	Report SDGs without the mid-level tritium results. The mid-level tritium results will be reported in supplemental data packages W06203I, W06209I, and W06210I. The samples may be batched with samples analyzed for mid-level tritium in other SDGs; a note in the case narrative will reflect this.
JUSTIFICATION	Accept proposed disposition: J.G. Douglas

Submitted by: Sandra Seger Date: 9/6/2011
Accepted by: J.G. Douglas Date: 9/6/2011

A-6003-640 (03/30)

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Seger, Sandra

From: Douglas, James G (Jim) [James_G_Jim_Douglas@RL.gov]

Sent: Wednesday, September 07, 2011 11:20 AM

To: Seger, Sandra

Cc: ^CPP Sample Management; ^CPP SDM Login; Bauer, Roy G; Elliott, Wanda S; Evans, Robert T; Fitzgerald, Scot L; Huggins, Stewart L; Luke, Scott N; Neely, Michael; Radloff, Anna W; Todak, David; Waters-husted, Karen S

Subject: RE: SIR SDR11-399 SAFs S11-007, S11-003 - Final Copies (W06203,09,10 Mid Level Tritium)

Attachments: SDR11-399 TARL.rtf; SDR11-399 TARL.pdf

Sandra: Please use attached final copies. Thanks! Jim Douglas 373-7154

From: Seger, Sandra [mailto:Sandra.Seger@testamericainc.com]
Sent: Tuesday, September 06, 2011 9:52 AM
To: ^CPP Sample Management
Cc: Champoux, Sara J; Douglas, James G (Jim)
Subject: SIRs W06209 (Cr6 Received Out of Temp) & W06203,09,10 (Mid Level Tritium)

<<W06209_SIR.doc>> <<W06203_W06209_W06210_Mid Level H3_SIR.doc>>

Seger, Sandra

From: Champoux, Sara J [Sara_J_Champoux@RL.gov]
Sent: Thursday, July 21, 2011 2:59 PM
To: Seger, Sandra; ^CPP Sample Management
Subject: RE: Need SIRs for mid level Tritium Batches with Multiple SDGs

Please send as few SIRs as possible. It is much easier to process one as opposed to five.

Sara J. Champoux
Chemist
Soil and Groundwater Remediation Project
Analytical Support
(509) 373-5290

From: Seger, Sandra [mailto:Sandra.Seger@testamericainc.com]
Sent: Thursday, July 21, 2011 2:02 PM
To: ^CPP Sample Management
Cc: Champoux, Sara J
Subject: Need SIRs for mid level Tritium Batches with Multiple SDGs

Sara,

TARL was given permission (during the 6/29/11 bi-weekly phone call)to batch SDGs together. This only applies to mid level tritium samples. We did not discuss SIRs.

Batching SDGs together will be discussed in the case narratives . Do SIRs need to be included? If yes do you want me to send one SIR that covers all the SDGs or a SIR for each batch? SDGs W06167, W06174, W06164 and W06161 are ready to be reported.

Thanks,
Sandra Seger
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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Richland, WA 99354
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www.testamericainc.com

Sara Champoux called on 7/21/11 at 3:22 P.M. Phone call was in regards to batching SDGs together. Her instructions were as follows:

Do not send SIRs for batching SDGs together. Discuss batching in case narratives. State that SDGs were batched together to save counting time and that TARL was given permission to do this on this on the 6/29/11 bi-weekly phone call.

SKS 7/21/11

7/21/2011

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR11-417
REV NUM	0
DATE INITIATED	9/22/2011

SAMPLE EVENT INFORMATION

SAF NUM(S)	W11-008
OPERABLE UNIT(S)	NONE
PROJECT(S)	RCRA11
SAMPLE EVENT TITLE(S)	RCRA11
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	8
SAMPLE NUMBERS	B2FL00, B2FL16, B2FL51, B2FL56, B2FL61, B2FL91, B2FL92, B2FLD5
SAMPLE MATRIX	WATER
COLLECTION DATE	8/2/2011 - 8/9/2011
SDG NUM	W06210

ISSUE BACKGROUND

CLASS	Laboratory Issue
TYPE	Quality Control Failure
DESCRIPTION	The Tc99 sample matrix spike (B2FL51 MS) has a high recovery of 209%. TARL suspects the recovery is out of limits due to the high activity (12,700 pCi/L) present in sample B2FL51. The batch blank, LCS and duplicate are acceptable. All the samples in the batch except B2FL91 have activities greater than the CRDL of 15 pCi/L. The sample activities (pCi/L) are:

B2FL91 – 7.08
B2FL92 - 4650
B2FL56 - 21800
B2FL00 - 213
B2FL16 - 6510
B2FL61 - 13900
B2FL51 - 12700
B2FLD5 - 32000

DISPOSITION

DESCRIPTION Proposed Disposition:

(1) Report results and note matrix spike failure in the case narrative.
or
(2) Reanalyze the sample (B2FL51) and matrix spike (B2FL51 MS).

JUSTIFICATION Accepted Disposition: Accept proposed disposition #2: reanalyze sample and matrix spike; note re-run in the case narrative.

Submitted by:	Sandra Seger / TARL	Date: 9/22/2011
Accepted by:	Karen Waters-Husted / CHPRC	Date: 9/26/2011

A-6003-640 (03/30)

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Seger, Sandra

From:	Douglas, James G (Jim) [James_G_Jim_Douglas@RL.gov]
Sent:	Tuesday, October 04, 2011 2:08 PM
To:	Seger, Sandra
Cc:	^CPP Sample Management; ^CPP SDM Login; Fitzgerald, Scot L; Huggins, Stewart L; Waters-husted, Karen S; Trent, Stephen J; Sumner, Laine C
Subject:	SIR SDR11-417 SAF W11-008 - Final Copies (W06210 Tc99 MS has High Recovery)
Attachments:	SDR11-417 TARL.rtf; SDR11-417 TARL.pdf

Sandra: Please use the attached final copies.

My apologies for the late delivery of this SIR; I missed Karen's email of 9/24 directing to reanalyze the sample and MS.

Jim Douglas 373-7154
Chemist
Analytical Support Group
Soil and Groundwater Remediation Project
CHPRC

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.

10/12/2011 1:48:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 48759 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MLFN810	B2F3Y6		MW6-SBB-A1	S11-007	W06210					08/02/2011 12:52

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	1.81E+00	pCi/L	3.1E-01	3.1E-01		2.14E-01	86.5	I129LL_SEP_LEPS	3.7331E+00	L	09/01/2011 22:35	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:
9MLFN910	B2F3W6		MW6-SBB-A1	S11-007	W06210					08/02/2011 11:42

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	2.77E+00	pCi/L	4.3E-01	4.3E-01		1.97E-01	85.1	I129LL_SEP_LEPS	3.8108E+00	L	09/02/2011 02:37	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:
9MLFP010	B2FL91		MW6-SBB-A1	W11-008	W06210					08/02/2011 07:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	-6.82E-02	pCi/L	1.4E-01	1.4E-01	U	2.35E-01	85.4	I129LL_SEP_LEPS	3.7069E+00	L	09/02/2011 06:00	I
1230080	TC-99	14133-76-7	7.08E+00	pCi/L	4.3E+00	5.6E+00	U	9.88E+00	100.0	TC99_SEP_LSC	1.252E-01	L	09/13/2011 10:26	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:
9MLFP110	B2FL92		MW6-SBB-A1	W11-008	W06210					08/02/2011 09:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	2.81E+00	pCi/L	6.0E-01	6.0E-01		2.99E-01	79.5	I129LL_SEP_LEPS	3.753E+00	L	09/02/2011 06:01	I
1230080	TC-99	14133-76-7	4.65E+03	pCi/L	3.8E+01	2.6E+02		1.00E+01	100.0	TC99_SEP_LSC	1.247E-01	L	09/13/2011 11:28	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:
9MLFP310	B2F5B5		MW6-SBB-A1	S11-007	W06210					08/04/2011 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1214238	H-3	10028-17-8	3.01E+02	pCi/L	1.8E+01	4.5E+01		2.78E+01	100.0	906.0ML_H3_LSC	1.0018E-02	L	09/09/2011 08:12	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:
9MLFP410	B2F5B6		MW6-SBB-A1	S11-007	W06210					08/04/2011 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230085	Uranium	7440-61-1	3.03E+02	ug/L	3.6E+01	3.6E+01		8.42E-02		UTOT_KPA	2.49E-02	ML	09/26/2011 10:21	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:
9MLFP510	B2F5B7		MW6-SBB-A1	S11-007	W06210					08/04/2011 10:30

TestAmerica

rptFeadRadSummaryEdd v3.48

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

I

OCTOBER 13, 2011

10/12/2011 1:48:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 48759 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230085	Uranium	7440-61-1	3.02E+02	ug/L	3.6E+01	3.6E+01		8.35E-02		UTOT_KPA	2.51E-02	ML	09/26/2011 10:35	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:
9MLFP610	B2F5B8		MW6-SBB-A1	S11-007	W06210					08/04/2011 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230085	Uranium	7440-61-1	3.07E+02	ug/L	3.6E+01	3.6E+01		8.19E-02		UTOT_KPA	2.56E-02	ML	09/26/2011 10:52	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:
9MLH5510	B2FL16		MW6-SBB-A1	W11-008	W06210					08/04/2011 13:37

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230080	TC-99	14133-76-7	6.51E+03	pCi/L	4.4E+01	3.6E+02		9.98E+00	100.0	TC99_SEP_LSC	1.257E-01	L	09/13/2011 14:36	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:
9MLHLL10	B2FL56		MW6-SBB-A1	W11-008	W06210					08/08/2011 09:37

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230080	TC-99	14133-76-7	2.18E+04	pCi/L	8.0E+01	1.2E+03		9.89E+00	100.0	TC99_SEP_LSC	1.247E-01	L	09/13/2011 12:31	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:
9MLHMN10	B2FL00		MW6-SBB-A1	W11-008	W06210					08/08/2011 10:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	3.62E+00	pCi/L	5.3E-01	5.3E-01		2.70E-01	83.8	I129LL_SEP_LEPS	3.7425E+00	L	09/02/2011 09:25	I
1230080	TC-99	14133-76-7	2.13E+02	pCi/L	8.9E+00	1.7E+01		9.91E+00	100.0	TC99_SEP_LSC	1.26E-01	L	09/13/2011 13:34	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:
9MLJM010	B2FL61		MW6-SBB-A1	W11-008	W06210					08/09/2011 09:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	4.25E+00	pCi/L	2.7E+00	2.7E+00		2.04E+00	91.4	I129LL_SEP_LEPS	3.503E-01	L	09/02/2011 09:26	I
1230080	TC-99	14133-76-7	1.39E+04	pCi/L	7.3E+01	7.7E+02		1.26E+01	100.0	TC99_SEP_LSC	1.014E-01	L	09/13/2011 15:39	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:
9MLJM220	B2FL51		MW6-SBB-A1	W11-008	W06210					08/09/2011 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1277187	TC-99	14133-76-7	2.38E+04	pCi/L	1.3E+02	1.3E+03		2.31E+01	100.0	TC99_SEP_LSC	5.16E-02	L	10/07/2011 03:25	I

TestAmerica

rptFeadRadSummaryEdd v3.48

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

2

10/12/2011 1:48:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 48759 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MLJM510	B2FLD5		MW6-SBB-A1	W11-008	W06210					08/09/2011 12:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230080	TC-99	14133-76-7	3.20E+04	pCi/L	9.8E+01	1.8E+03		1.00E+01	100.0	TC99_SEP_LSC	1.263E-01	L	09/13/2011 19:50	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MLKR110	B2FKN5		MW6-SBB-A1	I11-039	W06210					08/09/2011 07:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230084	C-14	14762-75-5	1.64E+00	pCi/L	3.4E+00	4.0E+00	U	8.01E+00	100.0	C14_LSC	2.00E-01	L	09/08/2011 17:20	I
1230078	I-129	15046-84-1	2.11E-02	pCi/L	1.3E-01	1.3E-01	U	2.27E-01	90.8	I129LL_SEP_LEPS	3.7701E+00	L	09/02/2011 12:49	I
1230082	NP-237	13994-20-2	4.27E-02	pCi/L	8.7E-02	8.8E-02	U	2.05E-01	83.7	NP237_LLE_PLAT	1.999E-01	L	09/14/2011 13:43	I
1230083	Se-79	15758-45-9	-7.11E+00	pCi/L	6.4E+00	7.6E+00	U	1.62E+01	53.3	SE79_SEP_IE_LS	2.021E-01	L	09/02/2011 06:32	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:
9MLKTP10	B2FKN6		MW6-SBB-A1	I11-039	W06210					08/09/2011 10:19

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230084	C-14	14762-75-5	4.50E+00	pCi/L	3.5E+00	4.1E+00	U	8.01E+00	100.0	C14_LSC	2.00E-01	L	09/08/2011 18:03	I
1230078	I-129	15046-84-1	-1.68E-02	pCi/L	8.6E-02	8.6E-02	U	1.55E-01	81.4	I129LL_SEP_LEPS	3.8269E+00	L	09/02/2011 12:50	I
1230082	NP-237	13994-20-2	-1.85E-02	pCi/L	9.6E-02	9.6E-02	U	2.61E-01	91.4	NP237_LLE_PLAT	1.997E-01	L	09/14/2011 13:44	I
1230083	Se-79	15758-45-9	-1.82E+00	pCi/L	5.0E+00	5.8E+00	U	1.22E+01	71.9	SE79_SEP_IE_LS	1.993E-01	L	09/02/2011 07:25	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:
9MLL7P10	B2FKL0		MW6-SBB-A1	I11-039	W06210					08/10/2011 08:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	2.51E+00	pCi/L	4.8E-01	4.8E-01		2.49E-01	90.8	I129LL_SEP_LEPS	3.6313E+00	L	09/02/2011 16:40	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:
9MLL7Q10	B2FKL1		MW6-SBB-A1	I11-039	W06210					08/10/2011 08:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	2.59E+00	pCi/L	4.2E-01	4.2E-01		2.09E-01	88.6	I129LL_SEP_LEPS	3.6356E+00	L	09/02/2011 16:41	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:
9MLM7V10	B2FKC2		MW6-SBB-A1	I11-038	W06210					08/10/2011 11:07

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.

10/12/2011 1:48:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 48759 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	3.90E-01	pCi/L	1.5E-01	1.5E-01	U	3.02E-01	84.9	I129LL_SEP_LEPS	3.6941E+00	L	09/03/2011 03:36	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:
9MLM7W10	B2FKC3		MW6-SBB-A1	I11-038	W06210					08/10/2011 11:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	3.42E-01	pCi/L	1.4E-01	1.4E-01	U	2.90E-01	82.2	I129LL_SEP_LEPS	3.7393E+00	L	09/03/2011 03:36	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:
9MLM8H10	B2FKH2		MW6-SBB-A1	I11-038	W06210					08/10/2011 12:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230078	I-129	15046-84-1	5.46E-02	pCi/L	1.2E-01	1.2E-01	U	2.17E-01	79.5	I129LL_SEP_LEPS	3.8383E+00	L	09/03/2011 06:59	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:
9MLM8J10	B2FKJ0		MW6-SBB-A1	I11-038	W06210					08/10/2011 07:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230084	C-14	14762-75-5	3.83E+00	pCi/L	3.4E+00	4.1E+00	U	8.01E+00	100.0	C14_LSC	2.00E-01	L	09/08/2011 18:46	I
1230078	I-129	15046-84-1	6.95E-02	pCi/L	9.9E-02	9.9E-02	U	1.94E-01	79.5	I129LL_SEP_LEPS	3.8986E+00	L	09/03/2011 06:59	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:
9MLM8K10	B2FKJ1		MW6-SBB-A1	I11-038	W06210					08/10/2011 11:09

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
1230084	C-14	14762-75-5	5.51E+00	pCi/L	3.5E+00	4.1E+00	U	8.00E+00	100.0	C14_LSC	2.00E-01	L	09/08/2011 20:12	I
1230078	I-129	15046-84-1	5.25E+00	pCi/L	7.5E-01	7.5E-01		2.61E-01	88.9	I129LL_SEP_LEPS	3.9137E+00	L	09/03/2011 10:24	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.

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLCWE1AB	**Sdg/Rept Nbr:**	W06203	48759	**Collection Date:** 07/27/2011 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 07/28/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
1214238	H-3	1.29E+01	pCi/L	2.4E+01	U	2.71E+01	100.0		906.0ML_H3_L	1.0008E-02	09/09/2011				D
BLK	10028-17-8			1.4E+01						L	08:12				

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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRT51AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/04/2011 10:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/04/2011

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
1230085	Uranium	1.41E-01	ug/L	1.5E-02		8.42E-02			UTOT_KPA	2.49E-02	09/26/2011				D
BLK	7440-61-1			1.5E-02						ML	10:08				

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTP1AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/02/2011 12:52
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/03/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BL	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
1230078	I-129	3.24E-02	pCi/L	1.0E-01	U	1.90E-01	85.9		I129LL_SEP_L	3.4866E+00	09/03/2011				D
BLK	15046-84-1			1.0E-01						L	10:24				

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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTQ1AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 09:51
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BN	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
1230080	TC-99	9.46E+00	pCi/L	5.8E+00	U	1.00E+01	100.0		TC99_SEP_LS	1.25E-01	09/13/2011				D
BLK	14133-76-7			4.4E+00						L	20:53				

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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id: MLRTR1AB **Sdg/Rept Nbr:** W06210 48759 **Collection Date:** 08/09/2011 07:30

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BP	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
1230082	NP-237	0.00E+00	pCi/L	9.5E-02	U	2.23E-01	89.2		NP237_LLE_P	2.005E-01	09/14/2011				D
BLK	13994-20-2			9.5E-02						L	13:44				

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTT1AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 10:19
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BR	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
1230083	Se-79	-1.26E+00	pCi/L	6.9E+00	U	1.44E+01	60.7		SE79_SEP_IE_	2.005E-01	09/02/2011				D
BLK	15758-45-9			5.9E+00						L	09:12				

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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTW1AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/10/2011 07:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/11/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BS	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
1230084	C-14	3.59E+00	pCi/L	4.1E+00	U	8.01E+00	100.0		C14_LSC	2.00E-01	09/08/2011				D
BLK	14762-75-5			3.4E+00						L	20:55				

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MMX741AB	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 10:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BU	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
1277187	TC-99	6.15E+00	pCi/L	5.6E+00	U	9.37E+00	100.0		TC99_SEP_LS	1.275E-01	10/07/2011				D
BLK	14133-76-7			4.1E+00						L	05:31				

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.

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLCWE1CS	**Sdg/Rept Nbr:**	W06203	48759	**Collection Date:** 07/27/2011 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 07/28/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
1214238	H-3	8.51E+03	pCi/L	9.4E+02		2.61E+01	100.0	9.07E+03	906.0ML_H3_L	1.00E-02	09/09/2011			70	D
BS	10028-17-8			6.6E+01				93.8		L	08:12			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRT51CS	**Sdg/Rept Nbr:**	W06210 48759	**Collection Date:**	08/04/2011 10:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	08/04/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BJ	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
1230085	Uranium	3.53E+01	ug/L	4.2E+00		8.35E-02		3.64E+01	UTOT_KPA	2.51E-02	09/26/2011			70	D
BS	7440-61-1			4.2E+00				96.8		ML	10:10			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRT51DS	**Sdg/Rept Nbr:**	W06210 48759	**Collection Date:**	08/04/2011 10:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	08/04/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BK	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
1230085	Uranium	3.49E+00	ug/L	4.1E-01		8.45E-02		3.65E+00	UTOT_KPA	2.48E-02	09/26/2011			70	D
BS	7440-61-1			4.1E-01				95.5		ML	10:13			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTP1CS	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/02/2011 12:52
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/03/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BM	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
1230078	I-129	1.34E+01	pCi/L	1.6E+00		3.99E-01	80.7	1.15E+01	I129LL_SEP_L	3.4103E+00	09/05/2011			70	D
BS	15046-84-1			1.6E+00				116.0		L	07:43			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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTQ1CS	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 09:51
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BO	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
1230080	TC-99	4.24E+02	pCi/L	2.9E+01		9.70E+00	100.0	5.43E+02	TC99_SEP_LS	1.25E-01	09/13/2011			70	D
BS	14133-76-7			1.2E+01				78.1		L	22:58			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTR1CS	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:**	08/09/2011 07:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:**	08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BQ	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
1230082	NP-237	6.63E+00	pCi/L	2.1E+00		2.40E-01	96.2	9.02E+00	NP237_LLE_P	1.995E-01	09/14/2011			70	D
BS	13994-20-2			1.0E+00				73.5		L	13:44			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLRTW1CS	**Sdg/Rept Nbr:**	W06210 48759	**Collection Date:**	08/10/2011 07:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	08/11/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BT	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
1230084	C-14	7.68E+03	pCi/L	4.4E+02		3.20E+02	100.0	7.30E+03	C14_LSC	5.00E-03	09/08/2011			70	D
BS	14762-75-5			3.0E+02				105.2		L	21:38			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MMX741CS	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 10:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BV	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
1277187	TC-99	4.55E+02	pCi/L	3.0E+01		9.53E+00	100.0	5.48E+02	TC99_SEP_LS	1.252E-01	10/07/2011			70	D
BS	14133-76-7			1.2E+01				83.1		L	06:34			130	

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MK8091ER	**Sdg/Rept Nbr:**	W06203	48759	**Collection Date:** 07/27/2011 09:57
Client Id:	B2BTC5	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 07/28/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S11-003	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
1214238	H-3	2.28E+01	pCi/L	2.4E+01	U	2.73E+01	100.0		906.0ML_H3_L	1.0006E-02	09/09/2011	27.8	0.4		D
DUP	10028-17-8	3.01E+01		1.3E+01						L	08:12	20.0	3		

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLFN81CR	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/02/2011 12:52
Client Id:	B2F3Y6	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/03/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S11-007	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
1230078	I-129	1.90E+00	pCi/L	3.9E-01		2.58E-01	86.8		I129LL_SEP_L	3.7321E+00	09/02/2011	4.8	0.3		D
DUP	15046-84-1	1.81E+00		3.9E-01						L	02:36	20.0	3		

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLFP41CR	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/04/2011 10:30
Client Id:	B2F5B6	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/04/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S11-007	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
1230085	Uranium	3.05E+02	ug/L	3.6E+01		8.35E-02			UTOT_KPA	2.51E-02	09/26/2011	.5	0.1		D
DUP	7440-61-1	3.03E+02		3.6E+01						ML	10:27	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.

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLJM01DR	**Sdg/Rept Nbr:**	W06210 48759	**Collection Date:**	08/09/2011 09:51
Client Id:	B2FL61	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W11-008	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
1230080	TC-99	1.21E+04	pCi/L	6.7E+02		1.25E+01	100.0		TC99_SEP_LS	9.92E-02	09/13/2011	14.0	3.8		D
DUP	14133-76-7	1.39E+04		6.8E+01						L	16:42	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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLKR11FR	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 07:30
Client Id:	B2FKN5	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I11-039	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
1230082	NP-237	-8.14E-03	pCi/L	8.3E-02	U	1.95E-01	87.2		NP237_LLE_P	2.008E-01	09/14/2011	294.1	0.9		D
DUP	13994-20-2	4.27E-02		8.3E-02						L	13:43	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.

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLKTP1FR	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 10:19
Client Id:	B2FKN6	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I11-039	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
1230083	Se-79	-2.79E+00	pCi/L	6.3E+00	U	1.33E+01	65.2		SE79_SEP_IE_	2.009E-01	09/02/2011	0.0	0.2		D
DUP	15758-45-9	-1.82E+00		5.4E+00						L	08:19	20.0	3		

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLM8J1DR	**Sdg/Rept Nbr:**	W06210 48759	**Collection Date:**	08/10/2011 07:30
Client Id:	B2FKJ0	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	08/11/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I11-038	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
1230084	C-14	4.68E+00	pCi/L	4.1E+00	U	8.01E+00	100.0		C14_LSC	2.00E-01	09/08/2011	20.0	0.3		D
DUP	14762-75-5	3.83E+00		3.5E+00						L	19:29	20.0	3		

OCTOBER 13, 2011

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

Wednesday, October 12, 2011

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLFP51CW	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/04/2011 10:30
Client Id:	B2F5B7	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	MS		**Received Date:** 08/04/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S11-007	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
1230085	Uranium	3.82E+01	ug/L	5.4E+01	U	8.45E-02		3.69E+01	UTOT_KPA	2.48E-02	09/26/2011			60	D
MS	7440-61-1			5.4E+01				103.6		ML	10:46			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.

OCTOBER 13, 2011

Wednesday, October 12, 2011

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06210.Edd, h:\Reportdb\edd\FeadIV\Rad\48759.Edd

Lab Sample Id:	MLJM22CW	**Sdg/Rept Nbr:**	W06210	48759	**Collection Date:** 08/09/2011 10:30
Client Id:	B2FL51	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	MS		**Received Date:** 08/10/2011

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W11-008	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
1277187	TC-99	6.66E+03	pCi/L	2.1E+03		2.30E+01	100.0	8.76E+03	TC99_SEP_LS	5.18E-02	10/07/2011			60	D
MS	14133-76-7			1.5E+02				76.0		L	04:28			140	

OCTOBER 13, 2011

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

TA Richland
Hexavalent Chromium - Water

Analyst:	H.Rahavi	Calibration Curve Information				SOP Information	BATCH # 1223177
Start Date:	8/11/2011		Amount	Conc.(mg/L)	ABS.	RL-WC-003	SDG # W06210
Start Time:	14:45	Blank	0.000	0.000	0.000	Revision 0	Matrix Water
End Date:	8/11/2011	Std. 1	0.100	0.050	0.100		
End Time	15:15	Std. 2	0.500	0.250	0.485		Instrument Information
		Std. 3	0.750	0.375	0.716	MDL (mg/L) 0.0037	Instrument: Hach DR2010
Analyst Signature:		Std. 4	1.500	0.750	1.401		Wavelength: 540
		Std 5	2.000	1.000	1.841		R Squared 0.99973
Date:	08/11/11	Standard Volume (mL):			100.000		Slope: 1.84052
		Date of Curve: 8-11-11					Intercept: 0.01329

	Calibration Information:	ICV Information:		LCS Information:		Matrix Spike Information:	
Dilution ID #	Cr-11-00295	Cr-11-00296		Cr-11-00295		Cr-11-00295	
Prep Date:	08/11/11	08/11/11		08/11/11		08/11/11	
Concentration (mg/L)	50	50		50		50	
Expiration Date:	08/12/11	08/12/11		08/12/11		08/12/11	
Pipettor(s)	70,190	190		190		190	
Volume Used / Expected Value		1.000	0.50000	1.00	0.50000	0.50	0.26316

Expected values are only amounts added in mg and not final concentrations

Sample ID	Client ID	Type	Sample Volume (mL)	Sample ABS.	Blank ABS.	Corrected ABS.	Dilution Factor	Curve Conc. (mg/L)	Final Conc. (mg/L)	% Rec. / RPD
n/a	n/a	ICV	100.000	0.944	0.000	0.944	1	0.5057	0.506	101.14%
n/a	n/a	ICB	100.000	0.002	0.000	0.002	1	-0.0061	<MDL	
MLKNL1AA	n/a	Prep Blank	100.000	0.002		0.002	1	-0.0061	<MDL	
MLKNL1AC	n/a	LCS	100.000	0.955		0.955	1	0.5117	0.512	102.33%
MLKL41AA	B2FK72'	Sample	100.000	0.023		0.023	1	0.0053	0.005	
MLKL41AC-S	B2FK72'-MS	MS	100.000	0.528		0.528	1	0.2797	~~0.280~~ 0.275	104.26%
MLKL41AD-D	B2FK72'-MSD	MSD	100.000	0.527		0.527	1	0.2791	~~0.279~~	104.06%
MLKL41AE-X	B2FK72'-DUP	Duplicate	100.000	0.024		0.024	1	0.0058	0.006 0.274	9.79%
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
n/a	n/a	CCV	100.000	0.942		0.942	1	0.5046	0.505	100.92%
n/a	n/a	CCB	100.000	0.002		0.002	1	-0.0061	<MDL	
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			

CL 8-24-11

OCTOBER 13, 2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/21/2011 12:11:57 PM

Lot No., Due Date: J1H110499; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230082; RNP237 Np-237 w/tracer
SDG, Matrix: W06210; 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 Lisa Autonson Date 9/21/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1230082

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 Segu Date: 9/26/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/7/2011 11:59:23 AM

Lot No., Due Date: J1H050496,J1H050498,J1H090497,J1H100449,J1H110499,J1H120507,J1H150413; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230078; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06210; 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:
Please see NCM # 10-19146

First Level John Norton **Date** 9-7-11

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 12 30078

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: B2FL61 did not meet the CRDL due to reduced aliquot size. Aliquot size was reduced due to screening result.

Second Level Review: Sandra Seger Date: 9/7/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-19146
NCM Initiated By: John Norton
Date Opened: 09/07/2011
Date Closed:

Nonconformance: MDA not met
Subcategory: Data accepted

Classification: Anomaly
Status: PMREVIEW
Production Area: Environmental - Prep
Tests: None
Lot #'s (Sample #'s): J1H100449 (1),
QC Batches: None.,

Problem Description / Root Cause

Name	Date	Description
John Norton	09/07/2011	this sample did not meet the CRDL due to the reduced aliquot size.

Corrective Action

Name	Date	Corrective Action
John Norton	09/07/2011	The aliquot size was reduced because of activity detected during the sample screening procedure.

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: 9/7/2011

Page 1 of 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

10/10/2011 11:25:00 AM

Lot No., Due Date: J1H050498,J1H100413,J1H090497,J1H100449; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230080; RTC99 Tc-99 by LSC
SDG, Matrix: W06210; 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:
NCM 10-19370

First Level Lisa Wilson Date 10/10/11

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

10/10/2011 11:22:22 AM

Lot No., Due Date: J1H100449; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1277187; RTC99 Tc-99 by LSC
SDG, Matrix: W06210; 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:
NCM 10-19370

First Level Lisa Gibson Date 10/10/11

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1230080 & 1277187

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 10-19370

Second Level Review: Sandra Leger Date: 10/12/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-19370
NCM Initiated By: Lisa Antonson
Date Opened: 10/10/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J1H050498 (1,2), J1H090497 (1,2), J1H100413 (1), J1H100449 (1,2,3), J1H180000 (80),
QC Batches: 1230080,

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	10/10/2011	The MS in the original batch was 209%. Due to the high activity of the sample, both sample and MS were rerun with reduced aliquot and good results in batch 1277187. Sample and MS do not meet CRDL due to reduced aliquot, sample result exceeds MDA.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	10/10/2011	The sample and MS were rerun with reduced aliquot.

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: 10/10/2011

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/7/2011 9:34:15 AM

Lot No., Due Date: J1H110499; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230083; RSE79 Se-79 by LSC
SDG, Matrix: W06210; 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** 9-7-11

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1230083

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: 9/7/11

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

TestAmerica

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/19/2011 2:24:11 PM

Lot No.. Due Date: J1G280491,J1G290442,J1H050442,J1H050499; 09/12/2011,09/19/2011,09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1214238; RTRITIUM Midlevel Tritium
SDG, Matrix: W06203,W06209,W06210; 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 Lisa Anderson Date 9/19/11

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 214238

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: 9/26/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/20/2011 1:27:29 PM

Lot No., Due Date: J1H110499,J1H150413; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230084; RC14 C-14 by LSC
SDG, Matrix: W06210; 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 Lisa Anderson Date 9/20/11

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1230084

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: 9/26/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/26/2011 11:52:57 AM

Lot No., Due Date: J1H050499; 09/26/2011
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 1230085; RUNAT UNat by KPA
SDG, Matrix: W06210; 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 John Vortis **Date** 9-26-11

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1230085

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: 9/26/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): **1223177**
Lab Sample Numbers or SDG: **W06210** Due 9/26
Method/Test/Parameter: **Cr+6 in Water / RL-WC-003**

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

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

Comments on any "No" response:

Analyst: H. [illegible] Date: 08/11/11

Second-Level Review: [illegible] Date: 8/11/11

Form CG-191, Rev. 4, 2/03 page 2 of 2

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-106 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 43 / 03	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:	45 Days	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 MLFN8	Holding Time	Preservative
B2F3Y6	N	W	08/02/11	1252	1x20-mL P	Activity Scan	6 Months	None
B2F3Y6	N	W	08/02/11	1252	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

Quote #57671
SDG # W06210
LOT ~~#J1H050496~~ J1H050496 LV 8/5/11
Report: 9/16/11

J1H050496

Relinquished By JP HERRICK CHPRC Print / Sign	Date/Time 1400 AUG 02 2011	Received By SSU #1 Print / Sign	Date/Time 1400 AUG 02 2011
Relinquished By SSU- 1	Date/Time AUG 03 2011 0700	Received By L.D. Wall CHPRC	Date/Time AUG 03 2011 0700
Relinquished By L.D. Wall CHPRC	Date/Time AUG 03 2011 1650	Received By H. Carnes Hoefelsmeier THD	Date/Time AUG 03 2011 1650
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-102 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 43 /03	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:	45 Days	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 MLFN	Holding Time	Preservative
B2F3W6	N	W	08/02/11	1142	1x20-mL P	Activity Scan	6 Months	None
B2F3W6	N	W	08/02/11	1142	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

SDG# ~~W0J~~ W06210
LOT # J11H050496

Relinquished By	Date/Time	Received By	Date/Time
JP HERRICK CHPRC (Print) (Sign)	1900 AUG 02 2011	SSU #1 (Print) (Sign)	1900 AUG 02 2011
SSU- 1	AUG 03 2011 0700	L.D. Wall CHPRC	AUG 03 2011 0700
L.D. Wall CHPRC	AUG 03 2011 1050	H. Carnes Hayes TALR	AUG 03 2011 1050

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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/3/11 @ 1050 GM Screen Result: (Airlock) .04 Initials HC
(Sample Receiving) .05 Initials HC

Client: PGW SDG #: W0620 NA [ ] SAF #: 511-007 NA [ ]

Lot Number: J1H050496

Chain of Custody # 511-007-106; 107

Shipping Container ID: Hand delivered NA [✓]

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ] HC 8/3/11
6. Number of samples received (Each sample may contain multiple bottles): 4 in Samples
7. Containers received: 4x4Lp

8. Sample holding times exceeded? NA [ ] Yes [ ] No [HC]
9. Samples have:
   [HC] tape
   [HC] custody seals
   [HC] hazard labels
   [HC] appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    [HC] W (Water)
    ____T (Biological, Ni-63)
11. Samples:
    [HC] are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA [HC]

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: Haylee Lomax Date: 8/3/11@1050

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

[✓] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
	SKS 8/16/11				SKS 8/16/11		

JTH050496 SKS 8/16/11

See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-065 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 43 / 03	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 ML FPO	Holding Time	Preservative
B2FL91	N	W	08/02/11	0745	1x20-mL P	Activity Scan	6 Months	None
B2FL91	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FL91	N	W	08/02/11	0745	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

SDG #W06210
LOT # J1H050498
Report: 9/16/11

J1H050498

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
JP HERRICK CHPRC	1400 AUG 02 2011	SSU #1	1400 AUG 02 2011
SSU- 1	AUG 03 2011 0700	L.D. Wall CHPRC	AUG 03 2011 0700
L.D. Wall CHPRC	AUG 03 2011 1050	TALI H. Carlos Hayes Lomax	AUG 03 2011 1050
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-066 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 43/03	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 MLFD1	Holding Time	Preservative
B2FL92	N	W	08/02/11	0912	1x20-mL P	Activity Scan	6 Months	None
B2FL92	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FL92	N	W	08/02/11	0912	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

SDG #W06210
LOT # J1H050498

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC		L. Herrick	AUG 02 2011 1400	SSU #1			AUG 02 2011 1400
SSU-1			AUG 03 2011 0700	L.D. Wall CHPRC		L. D. Wall	AUG 03 2011 0700
L.D. Wall CHPRC		L. D. Wall	AUG 03 2011 1050	H. Carnes Hayle Carnes		TALR	AUG 03 2011 1050
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/3/11 @ 1050 GM Screen Result: (Airlock) .04 Initials: HC
(Sample Receiving) .05 Initials: HC

Client: PGW SDG #: W06210 NA [ ] SAF #: W11-008 NA [ ]

Lot Number: JH060498

Chain of Custody # W11-008-065, 066

Shipping Container ID: Hand delivered NA

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2 Samples
7. Containers received: 4x4Lp, 6x1Lp
8. Sample holding times exceeded? NA [ ] Yes [ ] No HC
9. Samples have:
   ____ tape
   HC custody seals
   HC hazard labels
   HC appropriate sample labels
10. Matrix:
    ____ A (FLT, Wipe, Solid, Soil)
    ____ S (Air, Niosh 7400)
    HC W (Water)
    ____ T (Biological, Ni-63)
11. Samples:
    SKS are in good condition
    ____ are broken
    ____ Other
    ____ are leaking
    ____ have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No HC
14. Description of anomalies (include sample numbers): NA HC

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: [signature] Date: 8/13/11 @ 1050

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

[ ] No action necessary; process as is

Project Manager [signature] Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SKS 8/16/11

SKS 8/16/11

JIH 050498 SKS 8/16/11

See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-426 Page 1 of 1

Collector	L.D. Wall ~~CHPRC~~	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 42/5	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:	45 Days	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 MLFP3	Holding Time	Preservative
B2F5B5	N	W	8/4/11	1030	1x20-mL P	Activity Scan	6 Months	None
B2F5B5	N	W	↓	↓	1x1-L P	906.0ML_H3_LSC: Mid-level Tritium (1)	6 Months	None

SDG# W06210
LOT#J1H050499
Report: 9/19/11

J1H050499

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. Wall CHPRC	L.D. Wall	L.D. Wall	AUG 04 2011 1215	Lucas Velazquez Gallegos		TALR	AUG 04 2011 1215
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-427 Page 1 of 1

Collector	L.D. Wall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 42 / 5	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:	45 Days	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 MLFPU	Holding Time	Preservative
B2F5B6	N	W	8/4/11	1030	1x20-mL P	Activity Scan	6 Months	None
B2F5B6	N	W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	6 Months	HNO3 to pH <2

SDG # W06210
LOT # J1H050499

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
L.D. Wall CHPRC	L.D. Wall	AUG 04 2011 1015	Lucas Velazquez		AUG 04 2011 1015

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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-428 Page 1 of 1

Collector	L.D. Wall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 42 / 5	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:	45 Days	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 MLFP5	Holding Time	Preservative
B2F5B7	N	W	8/4/11	1030	1x20-mL P	Activity Scan	6 Months	None
B2F5B7	N	W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	6 Months	HNO3 to pH <2

SDG# W06210
LOT # J1H050499

Relinquished By	Date/Time	Received By	Date/Time
L.D. Wall CHPRC Print / L.D. Wall Sign	1215 AUG 04 2011	Lucas Velazquez Print / Sign TAIR	1215 AUG 04 2011
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S11-007-429 Page 1 of 1

Collector	L.D. Wall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S11-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, July 2011	Logbook No.	HNF-N-506 42 / 5	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:	45 Days	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 MLFP6	Holding Time	Preservative
B2F5B8	N	W	8/4/11	1030	1x20-mL P	Activity Scan	6 Months	None
B2F5B8	N	W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	6 Months	HNO3 to pH <2

SDG # LW6210
LOT # J11H050499

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. Wall CHPRC	L.D. Wall	L.D. Wall	AUG 04 2011 1215	Lucas Velazquez	Lucas Velazquez	TAP	AUG 04 2011 1215
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8-4-11 1215 GM Screen Result: (Airlock) .04 Initials[BK
(Sample Receiving) .04 Initials[BK

Client: PGW SDG #: W06210 NA [ ] SAF #: S11-007 NA [ ]

Lot Number: J11H050499

Chain of Custody # S11-007-426, 427, 428 & 429

Shipping Container ID: Hand delivered NA [ ]

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BK] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 4
7. Containers received: 1X Lp, 3X500mLp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BK]
9. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   [BK] appropriate sample labels
10. Matrix:
    _____A (FLT, Wipe, Solid, Soil)
    _____S (Air, Niosh 7400)
    [BK] L (Water)
    _____T (Biological, Ni-63)
11. Samples:
    [BK] are in good condition
    _____are broken
    _____Other _____
    _____are leaking
    _____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [BK] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)

    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [BK]
14. Description of anomalies (include sample numbers): NA [BK]

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

15. Sample Location, Sample Collector Listed on COC? * Yes [X] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information: N/A

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

Sample Custodian: Barbara Richardson Date: 8-4-11 1215

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

[ ] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SKS 8/16/11 SKS 8/16/11

JIH 050499 SKS 8/16/11

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-058 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 41 / 50	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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
B2FL56	N	W	8-8-11	0937	1x20-mL P	Activity Scan	6 Months	None
B2FL56	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1) MLHLL	6 Months	HCl to pH <2

W06210
J1H090497
Due 9-23-11

J1H090497

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC			AUG 0 8 2011 1115	JSH #1			AUG 0 8 2011 1115
SSU-1			AUG 0 9 2011 0640	L.D. Wall CHPRC		L.D. Wall	AUG 0 9 2011 0640
L.D. Wall CHPRC		L.D. Wall	AUG 0 9 2011 1120	Lucas Velazquez TALR			AUG 0 9 2011 1120
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-047 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 41/50	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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
B2FL00	N	W	8-8-11	1025	1x20-mL P	Activity Scan	6 Months	None
B2FL00	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FL00	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1) MLHMN	6 Months	HCl to pH <2

W06210
J1H090497
Due 9-23-11

J1H090497

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
JP HERRICK CHPRC	[signature]	AUG 0 8 2011 1115	SSU #1		AUG 0 8 2011 1115
SSU-1		AUG 0 9 2011 0640	L.D. Wall CHPRC	L.D. Wall	AUG 0 9 2011 0640
L.D. Wall CHPRC	L.D. Wall	AUG 0 9 2011 1120	Luras Velazquez	JAR	AUG 0 9 2011 1120
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/19/11 @ 1120 GM Screen Result: (Airlock) 104 Initials HG
(Sample Receiving) 102 Initials HG

Client: PGW SDG #: W0L0210 NA [ ] SAF #: W11-008 NA [ ]

Lot Number: J1H090497

Chain of Custody # W11-008-047,658

Shipping Container ID: Hand delivered NA HG

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes HG No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2 samples
7. Containers received: 2 vials; 2x4L; 6x1L

8. Sample holding times exceeded? NA [ ] Yes [ ] No HG
9. Samples have:
   ____tape
   HG custody seals
   HG hazard labels
   HG appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    HG W (Water)
    ____T (Biological, Ni-63)
11. Samples:
    HG are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes HG No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No HG
14. Description of anomalies (include sample numbers): NA HG

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

15. Sample Location, Sample Collector Listed on COC? * Yes [N/A] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information: N/A

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

Sample Custodian: [signature] Date: 8/4/11@1120

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

[ ] No action necessary; process as is

Project Manager [signature] Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SLS 8/16/11

SLS 8/16/11

JIH 090497

LS-023, Rev. 14, 06/11

See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-050 Page 1 of 1

Collector	TONY VALERO CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 39 / 86	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at 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 MLH55	Holding Time	Preservative
B2FL16	N	W	8/04/11	1337	1x20-mL P	Activity Scan	6 Months	None
B2FL16	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

Quote # 57671
SDG # W04210
LOT # J1H100413
Report: 9/22/11

J1H100413

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
TONY VALERO CHPRC		ZVL	AUG 04 2011 1500	SSU-1			AUG 04 2011 1500
SSU-1			AUG 08 2011 0830	L.D. Wall CHPRC		L.D. Wall	AUG 08 2011 0830
L.D. Wall CHPRC		L.D. Wall	AUG 08 2011 1235	Lucas Velazquez Lopez		THR	AUG 08 2011 1235
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/8/11 @ 1235 GM Screen Result: (Airlock) 04 Initials HG
(Sample Receiving) 102 Initials HC

Client: PGW SDG #: W06210 NA [ ] SAF #: W11-008 NA [ ]

Lot Number: J11H100413

Chain of Custody # W11-008-050

Shipping Container ID: Hand delivered NA [ ]

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes HC No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1 Sample
7. Containers received: 1Lpx3
8. Sample holding times exceeded? NA [ ] Yes [ ] No HC
9. Samples have:
   ____tape
   HC custody seals
   HC hazard labels
   HC appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    HG (Water)
    ____T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA HC

See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: [signature] Date: 8/8/11 @ 1235

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

[✓] No action necessary; process as is

Project Manager Sandra Segen Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SKS 8/16/11

SKS 8/16/11

JIH 100413 SKS 8/16/11

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-059 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 41, 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	RCRA	Priority:	45 Days	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 ML JMO	Holding Time	Preservative
B2FL61	N	W	8-9-11	0951	1x20-mL P	Activity Scan	6 Months	None
B2FL61	N	W			2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FL61	N	W			3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

Quote # 57671
SDG # W06210
LOT # J1H100449
Report : 9/23/11

J1H100449

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC			AUG 09 2011 1330	SSU #1			AUG 09 2011 1330
Relinquished By SSU-1			AUG 10 2011 0740	Received By RD Julian CHPRC			AUG 10 2011 0740
Relinquished By RD Julian CHPRC			AUG 10 2011 1240	Received By H. Carnes Hayley Larmoth			AUG 10 2011 1240
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-057 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 41 151	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at 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
B2FL51	N	W	8-9-11	1030	1x20-mL P	Activity Scan MLJM2	6 Months	None
B2FL51	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

SDG# W06210
LOT# J1H100449

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC			AUG 09 2011 1330	SSU #1			AUG 09 2011 1330
SSU-1			AUG 10 2011 0740	RD Julian CHPRC			AUG 10 2011 0740
RD Julian CHPRC			AUG 10 2011 1240	T. Carnes		TALR	AUG 10 2011 1240
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W11-008-072 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W11-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, August 2011	Logbook No.	HNF-N-506 41 151	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 MLJMS	Holding Time	Preservative
B2FLD5	N	W	8-9-11	1240	1x20-mL P	Activity Scan	6 Months	None
B2FLD5	N	W	↓	↓	3x1-L G/P	TC99_SEP_LSC: Tc-99 (1)	6 Months	HCl to pH <2

SDG # W0620
LOT # J1H100449

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC			AUG 0 9 2011 1330	SSU #1			AUG 0 9 2011 1330
SSU-1			AUG 1 0 2011 0740	RD Julian CHPRC			AUG 1 0 2011 0740
RD Julian CHPRC			AUG 1 0 2011	A. Carnes			AUG 1 0 2011 1240
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/10/11 @ 1240 GM Screen Result: (Airlock) .05 Initials HC
(Sample Receiving) .04 Initials HC

Client: PGW SDG #: W06210 NA [ ] SAF #: W11-008 NA [ ]

Lot Number: JIH100449

Chain of Custody # W11-008-054; 057; 072

Shipping Container ID: Hand delivered NA [ ]

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 3 Samples
7. Containers received: 3X vials; 2X 4Lp; 4X 1Lp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [HC]
9. Samples have:
   ____tape
   HC custody seals
   HC hazard labels
   HC appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    HC W (Water)
    ____T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA HC

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: Hayde Gomez Date: 8/10/11 @ 1240

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

[✓] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
	SKS 8/16/11				SKS 8/16/11		

JIH100449 SKS 8/16/11

LS-023, Rev. 14, 06/11

See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-037-009 Page 1 of 1

Collector	JP HERRICK CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-037	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	100 KR4, August 2011	Logbook No.	HNF-N-506 43 / 09	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at 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 ML KL4	Holding Time	Preservative
B2FK72	N	W	08/11/11	0932	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool~4C
B2FK72	N	W	08/11/11	0932	1x20-mL P	Activity Scan	6 Months	None

SDG# ~~57671~~ W06210 LV 8/11/11
LOT# J1H110473
Report 8/26/11

J1H110473

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JP HERRICK CHPRC			AUG 1 1 2011 1015	ARMCINTYRE			AUG 1 1 2011 1015
Relinquished By			Date/Time	Received By			Date/Time
ARMCINTYRE			AUG 1 1 2011 1330	H. CALNES			AUG 1 1 2011 1330
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/11/11 @ 1330 GM Screen Result: (Airlock) .04 Initials HC
(Sample Receiving) .02 Initials HC

Client: WC HC 8/11/11 PGW SDG #: W06210 NA [ ] SAF #: I11-037 037 SFS 8/16/11 NA [ ]

Lot Number: TTH110473

Chain of Custody # I11-037-009

Shipping Container ID: Hand delivered NA [ ]

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1 Sample
7. Containers received: 1 Vial; 1 x 500mL Ag
8. Sample holding times exceeded? NA [ ] Yes [ ] No [HC]
9. Samples have:
   HC tape custody seals
   HC hazard labels appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    HC W (Water)
    ____T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [HC]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA HC

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

15. Sample Location, Sample Collector Listed on COC? * Yes [HC] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information: N/A

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

Sample Custodian: Haylee Lormo Date: 8/11/11 @ 1330

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

[✓] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SKS 8/16/11   SKS 8/16/11

JIH110473

LS-023, Rev. 14, 06/11   See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-039-011 Page 1 of 1

Collector JOSH ARTZER CHPRC		Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-039	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2ZP1, August 2011	Logbook No.	HNF-N-506 43 /07	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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
B2FKN5	N	W	~~08/09/11~~ 08/09/11	0730	1x20-mL P	Activity Scan MLKRI	6 Months	None
B2FKN5	N	W	↓	↓	2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2FKN5	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FKN5	N	W	↓	↓	1x1-L G/P	NP237_LLE_PLATE_AEA:Np-237(1)	6 Months	HNO3 to pH <2
B2FKN5	N	W	08/09/11	0730	2x1-L G/P	Selenium-79	6 Months	HNO3 to pH <2

W06210
J1H110499
Due ~~9-24-11~~ 8-11-11
9-23-11

J1H110499

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JOSH ARTZER CHPRC			AUG 09 2011 1435	SSU#1			AUG 09 2011 1435
SSU-1			AUG 10 2011 0740	RD Julian CHPRC			AUG 10 2011 0740
RD Julian CHPRC			AUG 10 2011 1240	H. Carnes	Haylee Carnes TALK		AUG 10 2011 1240
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-039-012 Page 1 of 1

Collector	JOSH ARTZER CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-039	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2ZP1, August 2011	Logbook No.	HNF-N-506 43 / 07	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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
B2FKN6	N	W	08/09/11	1019	1x20-mL P	Activity Scan MLKTP	6 Months	None
B2FKN6	N	W	↓	↓	2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2FKN6	N	W			2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B2FKN6	N	W			1x1-L G/P	NP237_LLE_PLATE_AEA:Np-237(1)	6 Months	HNO3 to pH <2
B2FKN6	N	W	08/09/11	1019	2x1-L G/P	Selenium-79	6 Months	HNO3 to pH <2

WO6210
J1H110499
Due 9-23-11

J1H110499

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JOSH ARTZER CHPRC			AUG 09 2011 1435	SSU #1			AUG 09 2011 1435
SSU-1			AUG 10 2011 0740	RD Julian CHPRC			AUG 10 2011 0740
RD Julian CHPRC			AUG 10 2011 1240	H. Carnes			AUG 10 2011 1240
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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/10/11 @ 1240 GM Screen Result: (Airlock) .05 Initials HC
(Sample Receiving) .04 Initials HC

Client: PGW SDG #: W06210 NA [ ] SAF #: I11-039 NA [ ]

Lot Number:

Chain of Custody # ~~I11-039-011,012~~ SKS 8/16/11 I11-039-011, 012

Shipping Container ID: Hand delivered NA

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes HC No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2 Samples
7. Containers received: 2x Vial; 10x 1Lp; 4Lpx4
8. Sample holding times exceeded? NA [ ] Yes [ ] No HC
9. Samples have:
   ____ tape
   HC custody seals
   HC hazard labels
   HC appropriate sample labels
10. Matrix:
    ____ A (FLT, Wipe, Solid, Soil)
    ____ S (Air, Niosh 7400)
    HC I (Water)
    ____ T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ____ are broken
    ____ Other
    ____ are leaking
    ____ have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes HC No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No HC
14. Description of anomalies (include sample numbers): NA HC

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: [signature] Date: 8/10/11 @ 1240

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

[ ] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
Dark Amber				Dark Amber			
						8-10-11	
		8-10-11					

JIH110499

LS-023, Rev. 14, 06/11

See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-039-009 Page 1 of 1

Collector	S.J. Southerland CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-039	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2ZP1, August 2011	Logbook No.	HNF-N-506 41 / 52	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	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
B2FKL0	N	W	8/10/11	0857	1x20-mL P	Activity Scan MLLTP	6 Months	None
B2FKL0	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

WO 6210
J1H120507

J1H120507

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.J. Southerland CHPRC			AUG 10 2011 1400	SSU #1			AUG 10 2011 1400
SSU- 1			AUG 11 2011 0720	AL MCINTYRE / CHPRC			AUG 11 2011 0720
AL MCINTYRE / CHPRC			AUG 11 2011 1330	H. Carnes			AUG 11 2011 1330
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

A-6004-842 (REV 2)

OCTOBER 13, 2011

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-039-010 Page 1 of 1

Collector	S.J. Southerland CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-039	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2ZP1, August 2011	Logbook No.	HNF-N-506 41 152	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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
B2FKL1	N	W	8/10/11	0859	1x20-mL P	Activity Scan MLLTQ	6 Months	None
B2FKL1	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

WO 6210
J1H120507

J1H120507

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.J. Southerland CHPRC			AUG 10 2011 1400	SSU #1			AUG 10 2011 1400
SSU-1			AUG 11 2011 0700	AL MCINTYRE / CHPRC			AUG 11 2011 0700
AL MCINTYRE / CHPRC			AUG 11 2011 1330	H. Carnes			AUG 11 2011 1330
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

A-6004-842 (REV 2)

OCTOBER 13, 2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/11/11 @ 1330 GM Screen Result: (Airlock) 106 Initials HC
(Sample Receiving) 104 Initials HC

Client: PGW SDG #: W06210 NA [ ] SAF #: I11-039 NA [ ]

Lot Number: J114120507

Chain of Custody # I11-039-069.01.01 HC 8/11/11

Shipping Container ID: Hand delivered / NA HC

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2 Sample
7. Containers received: 2 vials; 4x4L

8. Sample holding times exceeded? NA [ ] Yes [ ] No [HC]
9. Samples have:
   ____tape
   [HC] custody seals
   ____hazard labels
   [HC] appropriate sample labels
10. Matrix:
    ____A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    [HC] I (Water)
    ____T (Biological, Ni-63)
11. Samples:
    [HC] are in good condition
    ____are broken
    ____Other
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA HC

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: Haylee Lamont Date: 8/11/11 @ 1330

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

[ ] No action necessary; process as is

Project Manager Sandra Seger Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
	SKS 8/16/11				SKS 8/16/11		

JIH 120507 SKS 8/16/11

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See over for additional information.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-038-020 Page 1 of 1

Collector	S.J. Southerland CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-038	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2UP1, August 2011	Logbook No.	HNF-N-506 41 / 152	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 MLM7V	Holding Time	Preservative
B2FKC2	N	W	8/10/11	1107	1x20-mL P	Activity Scan	6 Months	None
B2FKC2	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

Quote # 57671
SDG # ~~W0~~ W06210 LV 8/15/11
LOT # J1H150413
Report: 9/26/11

J1H150413

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.J. Southerland CHPRC			AUG 10 2011 1400	SSU #1			AUG 10 2011 1400
SSU-1			AUG 11 2011 0700	AL MCINTYRE / CHPRC			AUG 11 2011 0700
AL MCINTYRE / CHPRC			AUG 11 2011 1330	H. Carnes			AUG 11 2011 1330
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-038-021 Page 1 of 1

Collector	S.J. Southerland CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-038	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2UP1, August 2011	Logbook No.	HNF-N-506 41 152	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 MLM7W	Holding Time	Preservative
B2FKC3	N	W	8/10/11	1107	1x20-mL P	Activity Scan	6 Months	None
B2FKC3	N	W	↓	↓	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

Quote # 57671
SDG # ~~W06216~~ W06210 SKS 8/15/11
LOT # J1H150113

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.J. Southerland CHPRC			AUG 10 2011 1400	SSU #1			AUG 10 2011 1400
SSU- 1			AUG 11 2011 0700	AL MCINTYRE / CHPRC			AUG 11 2011 0700
AL MCINTYRE / CHPRC			AUG 11 2011 1330 1336	H. Carnes			AUG 11 2011 1330
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-038-027 Page 1 of 1

Collector	R.J. Ramirez CHRPC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-038	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2UP1, August 2011	Logbook No.	HNF-N-506 42 / 6	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at 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 MLMSH	Holding Time	Preservative
B2FKH2	N	W	08/10/11	1249	1x20-mL P	Activity Scan	6 Months	None
B2FKH2	N	W	08/10/11	1249	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

Quote # 57671
SDG # ~~WOL7H~~ WOL 6210 SKS 8/15/11
LOT # JIH 150413
Report: 9/26/11

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R.J. Ramirez CHRPC			AUG 1 0 2011 1356	SSU- 1			AUG 1 0 2011 1356
SSU- 1			AUG 1 1 2011 0700	AL MCINTYRE / CHPRC			AUG 1 1 2011 0700
AL MCINTYRE / CHPRC			AUG 1 1 2011 1330	H. Carnes			TAL AUG 1 1 2011 1330
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-038-029 Page 1 of 1

Collector	R.J. Ramirez CHRPC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-038	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2UP1, August 2011	Logbook No.	HNF-N-506____/____	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at 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 ML M8J	Holding Time	Preservative
B2FKJ0	N	W	08/10/11	0730	1x20-mL P	Activity Scan	6 Months	None
B2FKJ0	N	W	"	"	2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2FKJ0	N	W	08/10/11	0730	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

SDG# ~~W06716~~ W06210 SCS 8/15/11
LOT# J11H150413

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R.J. Ramirez CHRPC			AUG 1 0 2011 1304	SSU- 1			AUG 1 0 2011 1356
SSU- 1			~~AUG 1 2~~ AUG. 11 2011 8/11/11 0700	AL MCINTYRE / CHPRC			AUG 1 1 2011 0700
AL MCINTYRE / CHPRC			AUG 1 1 2011 1330 8/11/11	H. Carnes Hayes Lorna			AUG 1 1 2011 1330
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

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I11-038-030 Page 1 of 1

Collector	R.J. Ramirez CHRPC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I11-038	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	2UP1, August 2011	Logbook No.	HNF-N-506 421 6	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 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 ML M8K	Holding Time	Preservative
B2FKJ1	N	W	08/10/11	1109	1x20-mL P	Activity Scan	6 Months	None
B2FKJ1	N	W	/	/	2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2FKJ1	N	W	08/10/11	1109	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

SDG# ~~1006716~~ WQ6210 SKS 8/15/11
LOT# J1H150413

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	R.J. Ramirez CHRPC		AUG 1 0 2011 1356		SSU-1		AUG 1 0 2011 1356
SSU-1			AUG 1 1 2011 0700		AL MCINTYRE / CHPRC		AUG 1 1 2011 0700
AL MCINTYRE / CHPRC			AUG 1 1 2011 1330		H. Carnes		AUG 1 1 2011 1330

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

A-6004-842 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8/11/11@1330 GM Screen Result: (Airlock) .06 Initials HC
(Sample Receiving) .04 Initials HC

Client: PGW SDG #: ~~WC6216~~ WC6210 SKS 8/15/11 NA [ ] SAF #: I11-038 NA [ ]

Lot Number: J1H150413

Chain of Custody # I11-038-027; 030; 026; 029; 021

Shipping Container ID: Hand delivered NA SKS

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

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [HC] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 5 Samples
7. Containers received: 5vials; 10x4Lp; 4xLp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [HC]
9. Samples have:
   ___ tape
   HC custody seals
   HC hazard labels
   HC appropriate sample labels
10. Matrix:
    ___ A (FLT, Wipe, Solid, Soil)
    ___ S (Air, Niosh 7400)
    HC W (Water)
    ___ T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ___ are broken
    ___ Other
    ___ are leaking
    ___ have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [HC] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [HC]
14. Description of anomalies (include sample numbers): NA HC

LS-023, Rev. 14, 06/11 See over for additional information.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 Custodian: Haylee Carr Date: 8/11/11 @ 1330

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

[ ] No action necessary; process as is

Project Manager Sandra Segen Date 8/16/11

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

SKS 8/16/11

SKS 8/16/11

JIH 150413 SKS 8/16/11

LS-023, Rev. 14, 06/11

See over for additional informatio

8/25/2011 12:23:47 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

KO Np-237 Prp PRP010, Sep ALP006(ALP016)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

Pipet #: _____

Sep1 DT/Tm Tech: 11:15 am 9/13/11 SL

AnalyDueDate: 09/26/2011

Batch: 1230082 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1230078 BNTB, 1230082 KOXW, 1230083 CYTM, 1230084 5SS3,

Prep Tech: ,HayesA

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLKR1-1-AA J1H110499-1-SAMP 08/09/2011 07:30			199.90g,in AmtRec: 1XVIAL;5XLP;2X4LP	199.90g #Containers: 8	NPTA8381 07/07/11,pd 09/17/08,r			200	Scr:	Alpha: -5.78E-04 uCi/Sa	Beta: -5.23E-04 uCi/Sa	
2 MLKR1-1-AF-X J1H110499-1-DUP 08/09/2011 07:30			200.80g,in AmtRec: 1XVIAL;5XLP;2X4LP	200.80g #Containers: 8	NPTA8382 07/07/11,pd 09/17/08,r				Scr:	Alpha: -5.78E-04 uCi/Sa	Beta: -5.23E-04 uCi/Sa	
3 MLKTP-1-AA J1H110499-2-SAMP 08/09/2011 10:19			199.70g,in AmtRec: 1XVIAL;5XLP;2X4LP	199.70g #Containers: 8	NPTA8383 07/07/11,pd 09/17/08,r				Scr:	Alpha: -2.18E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa	
4 MLRTR-1-AA-B J1H180000-82-BLK 08/18/2011 09:55 pd			200.50g,in AmtRec:	200.50g #Containers: 1	NPTA8384 07/07/11,pd 09/17/08,r				Scr:	Alpha:	Beta:	
5 MLRTR-1-AC-C J1H180000-82-LCS 08/18/2011 09:55 pd			199.50g,in AmtRec:	199.50g #Containers: 1	NPSE0716 07/07/11,pd 09/17/08,r				Scr:	Alpha:	Beta:	

Comments: PH<2 AH Aug. 25 11

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLKR11AA-SAMP Constituent List:
Np-237 RDL:0.6 pCi/L LCL: UCL: RPD:

OCTOBER 13, 2011

8/18/2011 9:56:30 AM

Sample Preparation/Analysis

KO Np-237 Prp PRP010, Sep ALP006(ALP016)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

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

AnalyDueDate: 09/26/2011

Batch: 1230082 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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
MLRTR1AA-BLK:

MLRTR1AC-LCS:

MLKR11AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLRTR1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLRTR1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


OCTOBER 13, 2011

9/21/2011 12:11:01 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/21/2010, 9/28/2011, Batch: '1230082', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230082						
AC		Rev1C	HayesA	8/25/2011 12:26:06		
SC			MauclerlS	IsBatched	8/18/2011 10:05:56 AM	ICOC_RADCALC v4.8.49
SC			HayesA	Prep1C	8/25/2011 12:26:06 PM	RL-PRP-004 REVISION 1
SC			HayesA	Prep2C	8/25/2011 3:51:42 PM	RL-PRP-010 REVISION 1
SC			LuksicS	Sep2C	9/14/2011 9:01:12 AM	RL-ALP-016 REVISION 1
SC			ClarkR	InCnt1	9/14/2011 9:05:56 AM	RL-CI-008 REVISION 1
SC			DawkinsO	CalcC	9/14/2011 10:42:05 PM	RL-CI-008 REVISION 1
SC			antonsonl	Rev1C	9/21/2011 12:10:55 PM	RL-DR-001 Rev 2
AC			HayesA	8/25/2011 3:51:42 PM		
AC			LuksicS	9/14/2011 9:01:12		
AC			ClarkR	9/14/2011 9:05:56		
AC			DawkinsO	9/14/2011 10:42:05		
AC			antonsonl	9/21/2011 12:10:55		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

8/22/2011 12:06:33 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230078 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1230078 BNTB,

Prep Tech: ,NyeM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLFN8-1-AA J1H050496-1-SAMP 08/02/2011 12:52		3733.10g,in AmtRec: 1XVIAL;2X4LP	ITA11084 07/21/11 #Containers: 3		0.1145 g 0.0825 g 32.0 mg	200	L4	0155	9/1/11	
								Scr: Alpha: -3.42E-04 uCi/Sa		Beta: 5.38E-04 uCi/Sa
2 MLFN8-1-AC-X J1H050496-1-DUP 08/02/2011 12:52		3732.10g,in AmtRec: 1XVIAL;2X4LP	ITA11085 07/21/11 #Containers: 3		0.1149 g 0.0828 g 32.1 mg		L4	0556	9/2/11	
								Scr: Alpha: -3.42E-04 uCi/Sa		Beta: 5.38E-04 uCi/Sa
3 MLFN9-1-AA J1H050496-2-SAMP 08/02/2011 11:42		3810.80g,in AmtRec: 1XVIAL;2X4LP	ITA11086 07/21/11 #Containers: 3		0.1162 g 0.0847 g 31.5 mg		L6	0557		
								Scr: Alpha: -8.85E-04 uCi/Sa		Beta: 1.94E-04 uCi/Sa
4 MLFP0-1-AA J1H050498-1-SAMP 08/02/2011 07:45		3706.90g,in AmtRec: 2XVIAL;3XLP;2X4LP	ITA11087 07/21/11 #Containers: 6		0.1156 g 0.0840 g 31.6 mg		L4	0920	9/2/11	
								Scr: Alpha: 4.15E-04 uCi/Sa		Beta: -1.28E-03 uCi/Sa
5 MLFP1-1-AA J1H050498-2-SAMP 08/02/2011 09:12		3753.00g,in AmtRec: 2XVIAL;3XLP;2X4LP	ITA11088 07/21/11 #Containers: 6		0.1125 g 0.0831 g 29.4 mg		L5	0921		
								Scr: Alpha: 2.70E-03 uCi/Sa		Beta: -1.51E-03 uCi/Sa
6 MLHMN-1-AA J1H090497-2-SAMP 08/08/2011 10:25		3742.50g,in AmtRec: 1XVIAL;3LP;4XLP	ITA11089 07/21/11 #Containers: 6		0.1147 g 0.0837 g 31.0 mg		L4	1245	9/2/11	
								Scr: Alpha: 1.11E-03 uCi/Sa		Beta: 3.55E-04 uCi/Sa
7 MLJM0-1-AA J1H100449-1-SAMP 08/09/2011 09:51		350.30g,in AmtRec: 1XVIAL;3XLP	ITA11090 07/21/11 #Containers: 6		0.1167 g 0.0829 g 33.8 mg		L5	1246		
								Scr: Alpha: 2.10E-02 uCi/Sa 9.4E-02L		Beta: -9.19E-04 uCi/Sa

TestAmerica Richland Wa. Key: In - Initial Amt, fl - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.56

OCTOBER 13, 2011

8/22/2011 12:06:34 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230078 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,NyeM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MLKR1-1-AD J1H110499-1-SAMP 08/09/2011 07:30		3770.10g,in AmtRec: 1XVIAL;5XLP;2X4LP	ITA11091 07/21/11 #Containers: 8		0.1162 g 0.0826 g 33.6 mg	200	L4	1609 Scr: Alpha: -5.78E-04 uCi/Sa	9/2/11	Beta: -5.23E-04 uCi/Sa
9 MLKTP-1-AD J1H110499-2-SAMP 08/09/2011 10:19		3826.90g,in AmtRec: 1XVIAL;5XLP;2X4LP	ITA11092 07/21/11 #Containers: 8		0.1125 g 0.0824 g 30.1 mg		L5	1610 Scr: Alpha: -2.18E-03 uCi/Sa		Beta: 1.57E-03 uCi/Sa
10 MLL7P-1-AA J1H120507-1-SAMP 08/10/2011 08:59		3631.30g,in AmtRec: VIAL20;2X4LP	ITA11093 07/21/11 #Containers: 3		0.1163 g 0.0827 g 33.6 mg		L4	2000 Scr: Alpha: -5.25E-04 uCi/Sa	9/2/11	Beta: 4.47E-04 uCi/Sa
11 MLL7Q-1-AA J1H120507-2-SAMP 08/10/2011 08:59		3635.60g,in AmtRec: VIAL20;2X4LP	ITA11094 07/21/11 #Containers: 3		0.1153 g 0.0825 g 32.8 mg		L5	2001 Scr: Alpha: 3.00E-04 uCi/Sa		Beta: -9.25E-04 uCi/Sa
12 MLM7V-1-AA J1H150413-1-SAMP 08/10/2011 11:07		3694.10g,in AmtRec: 1XVIAL;2X4LP	ITA11095 07/21/11 #Containers: 3		0.1142 g 0.0828 g 31.4 mg		L4	0652 Scr: Alpha: 1.62E-03 uCi/Sa	9/3/11	Beta: 1.36E-03 uCi/Sa
13 MLM7W-1-AA J1H150413-2-SAMP 08/10/2011 11:07		3739.30g,in AmtRec: 1XVIAL;2X4LP	ITA11096 07/21/11 #Containers: 3		0.1137 g 0.0833 g 30.4 mg		L5	0652 Scr: Alpha: -3.00E-04 uCi/Sa		Beta: 1.05E-04 uCi/Sa
14 MLM8H-1-AA J1H150413-3-SAMP 08/10/2011 12:49		3838.30g,in AmtRec: 1XVIAL;2X4LP	ITA11097 07/21/11 #Containers: 3		0.1129 g 0.0835 g 29.4 mg		L4	1019 Scr: Alpha: 1.61E-04 uCi/Sa	9/3/11	Beta: 7.06E-04 uCi/Sa

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 2 ISV - Insufficient Volume for Analysis WO Cnt: 14 Prep_SamplePrep v4.8.56

8/22/2011 12:06:35 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230078 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,NyeM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 MLM8J-1-AC J1H150413-4-SAMP 08/10/2011 07:30	AmtRec: 1XVIAL;2XLP;2X4LP	3898.60g,in #Containers: 5	ITA11098 07/21/11		0.1130 g 0.0836 g ✓ 29.4 mg	200	LK Scr:	N19 Alpha: -8.76E-04 uCi/Sa	9/3/11 Beta: 5.63E-04 uCi/Sa	
16 MLM8K-1-AC J1H150413-5-SAMP 08/10/2011 11:09	AmtRec: 1XVIAL;2XLP;2X4LP	3913.70g,in #Containers: 5	ITA11099 07/21/11		0.1179 g 0.0850 g ✓ 32.9 mg		LK Scr:	1344 Alpha: -3.00E-04 uCi/Sa	Beta: 9.91E-04 uCi/Sa	
17 MLRTP-1-AA-B J1H180000-78-BLK 08/18/2011 09:55 pd	AmtRec:	3486.60g,in #Containers: 1	ITA11100 07/21/11		0.1161 g 0.0843 g ✓ 31.8 mg		LK Scr:	1344 Alpha:	Beta:	
18 MLRTP-1-AC-C J1H180000-78-LCS 08/18/2011 09:55 pd	AmtRec:	3410.30g,in #Containers: 1	ISD1266 07/06/11		0.1145 g 0.0839 g ✓ 30.6 mg		LK 9/5/11 Scr:	1104 Alpha:	9/5/11 [illegible] Beta:	

Comments: MLJM0-SAMP "1-129: reduce sample pour to 350mL due to rad-screeen. -8/22/11 MN"
pH 72 - 8/22/11 MN

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLFN81AA-SAMP Constituent List:

I-129	RDL:0.50E+00	pCi/L	LCL:	UCL:	RPD:
MLRTP1AA-BLK:					
I-129	RDL:0.50E+00	pCi/L	LCL:	UCL:	RPD:
MLRTP1AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

MLFN81AA-SAMP Calc Info:

OCTOBER 13, 2011

8/22/2011 12:06:36 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230078 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,NyeM

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

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLRTP1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLRTP1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


OCTOBER 13, 2011

9/7/2011 11:57:46 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/7/2010, 9/12/2011, Batch: '1230078', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230078						
AC		Rev1C	NyeM	8/22/2011 11:13:38		
SC			MaucieriS	IsBatched	8/18/2011 10:05:45 AM	ICOC_RADCALC v4.8.49
SC			NyeM	Prep1C	8/22/2011 11:13:38 AM	RL-PRP-004 REVISION 1
SC			NyeM	InPrep	8/22/2011 11:17:17 AM	RL-PRP-004 REVISION 1
SC			NyeM	Prep2C	9/1/2011 12:24:35 PM	RL-GAM-002 REVISION 1
SC			ClarkR	InCnt1	9/1/2011 12:26:14 PM	RL-CI-007 REVISION 1
SC			BlackCL	CalcC	9/6/2011 9:27:53 AM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	9/7/2011 11:57:38 AM	RL-DR-001 Rev 2
AC			NyeM	8/22/2011 11:17:17		
AC			NyeM	9/1/2011 12:24:35 PM		
AC			ClarkR	9/1/2011 12:26:14 PM		
AC			BlackCL	9/6/2011 9:27:53 AM		
AC			nortonj	9/7/2011 11:57:38		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

8/25/2011 9:19:44 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230080 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1230078 BNTB, 1230080 AMS5,

Prep Tech: ,HayesA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLFP0-1-AC J1H050498-1-SAMP 08/02/2011 07:45		125.20g,in AmtRec: 2XVIAL;3XLP;2X4LP #Containers: 6		60			Scr: Alpha: 4.15E-04 uCi/Sa	Beta: -1.28E-03 uCi/Sa
2 MLFP1-1-AC J1H050498-2-SAMP 08/02/2011 09:12		124.70g,in AmtRec: 2XVIAL;3XLP;2X4LP #Containers: 6					Scr: Alpha: 2.70E-03 uCi/Sa	Beta: -1.51E-03 uCi/Sa
3 MLHLL-1-AA J1H090497-1-SAMP 08/08/2011 09:37		124.70g,in AmtRec: 1XVIAL;3XLP #Containers: 4					Scr: Alpha: 3.17E-03 uCi/Sa 1.7E-01L	Beta: -1.61E-04 uCi/Sa
4 MLHMN-1-AC J1H090497-2-SAMP 08/08/2011 10:25		126.00g,in AmtRec: 1XVIAL;3LP;4XLP #Containers: 6					Scr: Alpha: 1.11E-03 uCi/Sa	Beta: 3.55E-04 uCi/Sa
5 MLH55-1-AA J1H100413-1-SAMP 08/04/2011 13:37		125.70g,in AmtRec: 1XVIAL;3XLP #Containers: 4					Scr: Alpha: 2.09E-03 uCi/Sa 2.6E-01L	Beta: 7.77E-06 uCi/Sa
6 MLJM0-1-AC J1H100449-1-SAMP 08/09/2011 09:51		101.40g,in AmtRec: 1XVIAL;3XLP #Containers: 6					Scr: Alpha: 2.10E-02 uCi/Sa 9.4E-02L	Beta: -9.19E-04 uCi/Sa
7 MLJM0-1-AD-X J1H100449-1-DUP 08/09/2011 09:51		99.20g,in AmtRec: 1XVIAL;3XLP #Containers: 6					Scr: Alpha: 2.10E-02 uCi/Sa 9.4E-02L	Beta: -9.19E-04 uCi/Sa

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 v4.8.56

OCTOBER 13, 2011

8/25/2011 9:19:45 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230080 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,HayesA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MLJM2-1-AA J1H100449-2-SAMP 08/09/2011 10:30		124.70g,in AmtRec: 1XVIAL;3XLP	#Containers: 4	60		Scr: Alpha: 1.96E-03 uCi/Sa	2.8E-01L	Beta: 4.02E-05 uCi/Sa
9 MLJM2-1-AC-S J1H100449-2-MS 08/09/2011 10:30		124.90g,in AmtRec: 1XVIAL;3XLP	TCSG3098 12/21/10,pd 01/01/87 r #Containers: 4			Scr: Alpha: 1.96E-03 uCi/Sa	2.8E-01L	Beta: 4.02E-05 uCi/Sa
10 MLJM5-1-AA J1H100449-3-SAMP 08/09/2011 12:40		126.30g,in AmtRec: 1XVIAL;3XLP	#Containers: 4			Scr: Alpha: 2.68E-03 uCi/Sa	2.0E-01L	Beta: -5.63E-05 uCi/Sa
11 MLRTQ-1-AA-B J1H180000-80-BLK 08/18/2011 09:55 pd		125.00g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 MLRTQ-1-AC-C J1H180000-80-LCS 08/18/2011 09:55 pd		125.00g,in AmtRec:	TCSE2530 05/23/11,pd 07/01/05 r #Containers: 1			Scr:	Alpha:	Beta:
13 MLRTQ-1-AD-BN J1H180000-80-IBLK 08/18/2011 09:55 pd		~~125.00g,in~~ 25 9/6/11 AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 MLRTQ-1-AE-BN J1H180000-80-IBLK 08/18/2011 09:55 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14 Prep_SamplePrep v4.8.56

OCTOBER 13, 2011

8/25/2011 9:19:46 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230080 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,HayesA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: MLJM0-SAMP "1-129: reduce sample pour to 350mL due to rad-screeen. -8/22/11 MN"

PH<2 AH Aug. 25.11

Sample 6 & 7 Poured to 100 ml because of screen AH Aug. 25.11

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLFP01AC-SAMP Constituent List:
Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20
MLJM21AC-MS:

MLRTQ1AA-BLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:
MLRTQ1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
MLRTQ1AD-IBLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:
MLRTQ1AE-IBLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

MLFP01AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLJM21AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTQ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTQ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTQ1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTQ1AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

OCTOBER 13, 2011

10/10/2011 11:24:00 AM

ICOC Fraction Transfer/Status Report

ByDate: 10/10/2010, 10/15/2011, Batch: '1230080', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230080						
AC		Rev1C	HayesA	8/25/2011 9:21:17		
SC			MaucieriS	IsBatched	8/18/2011 10:05:51 AM	ICOC_RADCALC v4.8.49
SC			HayesA	Prep1C	8/25/2011 9:21:17 AM	RL-PRP-004 REVISION 1
SC			NyeM	Sep2C	9/12/2011 2:25:20 PM	RL-LSC-013 REVISION 1
SC			ClarkR	InCnt1	9/12/2011 2:46:52 PM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	9/14/2011 2:29:02 PM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	10/10/2011 11:23:43 AM	RL-DR-001 Rev 2
AC			NyeM	9/12/2011 2:25:20 PM		
AC			ClarkR	9/12/2011 2:46:52 PM		
AC			ClarkR	9/14/2011 2:29:02 PM		
AC			antonsonl	10/10/2011 11:23:43		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

PRIORITY

*** RE-ANALYSIS REQUEST ***

DUE DATE 9/26/11

CUSTOMER P&W

ANALYSIS TC99

MATRIX Water

LOT NUMBER J1H100449

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1230080

NEW BATCH NUMBER 1277187

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) MLJM2	AA	209% MS.
2) MLJM2	AC	please repour @ 50 MLS
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048 Rev 9, 9/10

10/7/2011 12:23:10 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1277187 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1230078 BNTB, 1230080 AMS5, 1277187 AMS5,

Prep Tech: ,LuksicS

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLJM2-2-AA J1H100449-2-SAMP 08/09/2011 10:30		51.60g,in AmtRec: 1XVIAL;3XLP	#Containers: 4			Scr: Alpha: 1.96E-03 uCi/Sa	2.8E-01L	Beta: 4.02E-05 uCi/Sa
2 MLJM2-2-AC-S J1H100449-2-MS 08/09/2011 10:30		51.80g,in AmtRec: 1XVIAL;3XLP	TCSG3145 07/28/11,pd #Containers: 4			Scr: Alpha: 1.96E-03 uCi/Sa	2.8E-01L	Beta: 4.02E-05 uCi/Sa
3 MMX74-1-AA-B J1J040000-187-BLK 10/04/2011 16:34 pd		127.50g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
4 MMX74-1-AC-C J1J040000-187-LCS 10/04/2011 16:34 pd		125.20g,in AmtRec:	TCSE2549 07/28/11,pd #Containers: 1			Scr:	Alpha:	Beta:
5 MMX74-1-AD-BN J1J040000-187-IBLK 10/06/2011 08:07 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLJM22AA-SAMP Constituent List:
Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20

10/7/2011 12:23:10 PM

Sample Preparation/Analysis

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

AnalyDueDate: 09/26/2011

Batch: 1277187 pCi/L
SEQ Batch, Test: None

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
MLJM22AC-MS Constituent List:

MMX741AA-BLK:
  Tc-99        RDL:1.50E+01    pCi/L    LCL:        UCL:        RPD:
MMX741AC-LCS:
  Tc-99        RDL:15          pCi/L    LCL:70      UCL:130     RPD:20
MMX741AD-IBLK:
  Tc-99        RDL:1.50E+01    pCi/L    LCL:        UCL:        RPD:
MLJM22AA-SAMP Calc Info:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MLJM22AC-MS Calc Info:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MMX741AA-BLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MMX741AC-LCS:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MMX741AD-IBLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

10/10/2011 11:18:06 AM

ICOC Fraction Transfer/Status Report

ByDate: 10/10/2010, 10/15/2011, Batch: '1277187', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1277187						
AC		Rev1C	LuksicS	10/5/2011 2:35:43 PM		
SC			luksics	IsBatched	10/5/2011 1:52:45 PM	ICOC_RADCALC v4.8.49
SC			LuksicS	Prep1C	10/5/2011 2:35:43 PM	RL-PRP-004 REVISION 1
SC			LuksicS	Sep2C	10/6/2011 7:31:27 PM	RL-LSC-013 REVISION 1
SC			DawkinsO	InCnt1	10/6/2011 8:02:04 PM	RL-CI-005 REVISION 1
SC			DawkinsO	CalcC	10/7/2011 10:34:11 PM	RL-CI-005 REV. 1
SC			antonsonl	Rev1C	10/10/2011 11:17:52 AM	RL-DR-001 Rev 2
AC			LuksicS	10/6/2011 7:31:27 PM		
AC			DawkinsO	10/6/2011 8:02:04 PM		
AC			DawkinsO	10/7/2011 10:34:11		rev. 1
AC			antonsonl	10/10/2011 11:17:52		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

8/22/2011 2:46:17 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230083 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ~~Jorgensen D~~ HAYES A

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLKR1-1-AE J1H110499-1-SAMP 08/09/2011 07:30		202.10g,in AmtRec: 1XVIAL;5XLP;2X4LP #Containers: 8	SETA0890 10/22/10		200		Scr:	Alpha: -5.78E-04 uCi/Sa	Beta: -5.23E-04 uCi/Sa
2 MLKTP-1-AE J1H110499-2-SAMP 08/09/2011 10:19		199.30g,in AmtRec: 1XVIAL;5XLP;2X4LP #Containers: 8	SETA0891 07/19/11				Scr:	Alpha: -2.18E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
3 MLKTP-1-AF-X J1H110499-2-DUP 08/09/2011 10:19		200.90g,in AmtRec: 1XVIAL;5XLP;2X4LP #Containers: 8	seta0892 07/19/11				Scr:	Alpha: -2.18E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
4 MLRTT-1-AA-B J1H180000-83-BLK 08/18/2011 09:55 pd		200.50g,in AmtRec: #Containers: 1	seta0894 07/19/11				Scr:	Alpha:	Beta:
5 MLRTT-1-AC-BN J1H180000-83-IBLK 08/18/2011 09:55 pd		AmtRec: #Containers: 1					Scr:	Alpha:	Beta:

Comments: DHZ AH Aug.22.11

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLKR11AE-SAMP Constituent List:
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:

OCTOBER 13, 2011

8/18/2011 9:56:31 AM

Sample Preparation/Analysis

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

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

AnalyDueDate: 09/26/2011

Batch: 1230083 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
MLRTT1AA-BLK:

MLRTT1AC-IBLK:

MLKR11AE-SAMP Calc Info:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MLRTT1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MLRTT1AC-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```


OCTOBER 13, 2011

9/7/2011 9:33:17 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/7/2010, 9/12/2011, Batch: '1230083', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230083						
AC		Rev1C	HayesA	8/22/2011 3:55:59 PM		
SC			MauclerlS	IsBatched	8/18/2011 10:06:01 AM	ICOC_RADCALC v4.8.49
SC			HayesA	Prep1C	8/22/2011 3:55:59 PM	RL-PRP-004 REVISION 1
SC			JorgensonD	Sep2C	9/1/2011 2:19:13 PM	RL-LSC-012 REVISION 2
SC			DawkinsO	InCnt1	9/1/2011 3:19:01 PM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	9/6/2011 9:41:37 AM	RL-CI-005 REVISION 1
SC			norton|	Rev1C	9/7/2011 9:33:10 AM	RL-DR-001 Rev 2
AC			JorgensonD	9/1/2011 2:19:13 PM		
AC			DawkinsO	9/1/2011 3:19:01 PM		
AC			BlackCL	9/6/2011 9:41:37 AM		
AC			norton|	9/7/2011 9:33:10 AM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

9/2/2011 9:28:35 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/Sep LSC005
T0 Tritium - Midlevel, by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 09/12/2011

Batch: 1214238 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None All Tests: 1214235 BNTB, 1214236 AWTA, 1214238 ART0,

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MK809-1-AA J1G280491-1-SAMP 07/27/2011 09:57		AmtRec: 1XVIAL;1XLP;3X4LP	#Containers: 5			Scr:	Alpha: 2.42E-03 uCi/Sa	Beta: 5.34E-03 uCi/Sa
2 MK809-1-AE-X J1G280491-1-DUP 07/27/2011 09:57		AmtRec: 1XVIAL;1XLP;3X4LP	#Containers: 5			Scr:	Alpha: 2.42E-03 uCi/Sa	Beta: 5.34E-03 uCi/Sa
3 MK9N3-1-AC J1G290442-1-SAMP 07/26/2011 10:51		AmtRec: 1XVIAL;1XLP	#Containers: 2			Scr:	Alpha: 4.31E-05 uCi/Sa	Beta: -6.11E-05 uCi/Sa
4 MLCWE-1-AA-B J1H020000-238-BLK 08/03/2011 07:58 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 MLCWE-1-AC-C J1H020000-238-LCS 08/03/2011 07:58 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MLCWE-1-AD-BN J1H020000-238-IBLK 08/03/2011 07:58 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 MLE8P-1-AC J1H050442-4-SAMP 08/04/2011 10:30		AmtRec: 1XVIAL;1XLP	#Containers: 2			Scr:	Alpha: -9.50E-05 uCi/Sa	Beta: -6.15E-05 uCi/Sa

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 ICOC v4.8.49

OCTOBER 13, 2011

9/2/2011 9:28:36 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/Sep LSC005
T0 Tritium - Midlevel, by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 09/12/2011

Batch: 1214238 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MLE89-1-AC								
J1H050442-5-SAMP								
08/04/2011 10:30		AmtRec: 1XVIAL;1XLP	#Containers: 2			Scr:	Alpha: 8.78E-05 uCi/Sa	Beta: -1.90E-04 uCi/Sa
9 MLFP3-1-AA								
J1H050499-1-SAMP								
08/04/2011 10:30		AmtRec: 1XVIAL;1XLP	#Containers: 2			Scr:	Alpha: -1.27E-04 uCi/Sa	Beta: -6.15E-05 uCi/Sa

Comments: MK809-SAMP "I-129: sample has very heavy sediment which was orange in color- 8/9/11"

```
All Clients for Batch:
   384868, Pacific Northwest National Laboratory      Pacific Northwest National Lab,  SS , 57671
   384868, Pacific Northwest National Laboratory      Pacific Northwest National Lab,  SS , 57671

MK8091AA-SAMP Constituent List:
  H-3          RDL:25          pCi/L     LCL:        UCL:        RPD:
MLCWE1AA-BLK:
  H-3          RDL:25          pCi/L     LCL:        UCL:        RPD:
MLCWE1AC-LCS:

MLCWE1AD-IBLK:
  H-3          RDL:25          pCi/L     LCL:        UCL:        RPD:
MK8091AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLCWE1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLCWE1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MLCWE1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


OCTOBER 13, 2011

9/19/2011 2:22:46 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/19/2010, 9/24/2011, Batch: '1214238', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1214238						
AC		Rev1C	DefordP	9/9/2011 9:05:03 AM		
SC			MaucierlS	IsBatched	8/3/2011 8:00:06 AM	ICOC_RADCALC v4.8.49
SC			DefordP	Sep1C	9/9/2011 9:05:03 AM	RL-LSC-005 REVISION 1
SC			ClarkR	InCnt1	9/9/2011 1:43:03 PM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	9/19/2011 11:49:05 AM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	9/19/2011 2:22:37 PM	RL-DR-001 Rev 2
AC			ClarkR	9/9/2011 1:43:03 PM		
AC			ClarkR	9/19/2011 11:49:05		
AC			antonsonl	9/19/2011 2:22:37 PM		

AC: Accepting Entry, SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4

ICOCFractions v4.8.44

26

8/18/2011 9:56:31 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

AnalyDueDate: 09/26/2011

Batch: 1230084 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLKR1-1-AC J1H110499-1-SAMP 08/09/2011 07:30		AmtRec: 1XVIAL;5XLP;2X4LP	#Containers: 8			Scr:	Alpha: -5.78E-04 uCi/Sa	Beta: -5.23E-04 uCi/Sa
2 MLKTP-1-AC J1H110499-2-SAMP 08/09/2011 10:19		AmtRec: 1XVIAL;5XLP;2X4LP	#Containers: 8			Scr:	Alpha: -2.18E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
3 MLM8J-1-AA J1H150413-4-SAMP 08/10/2011 07:30		AmtRec: 1XVIAL;2XLP;2X4LP	#Containers: 5			Scr:	Alpha: -8.76E-04 uCi/Sa	Beta: 5.63E-04 uCi/Sa
4 MLM8J-1-AD-X J1H150413-4-DUP 08/10/2011 07:30		AmtRec: 1XVIAL;2XLP;2X4LP	#Containers: 5			Scr:	Alpha: -8.76E-04 uCi/Sa	Beta: 5.63E-04 uCi/Sa
5 MLM8K-1-AA J1H150413-5-SAMP 08/10/2011 11:09		AmtRec: 1XVIAL;2XLP;2X4LP	#Containers: 5			Scr:	Alpha: -3.00E-04 uCi/Sa	Beta: 9.91E-04 uCi/Sa
6 MLRTW-1-AA-B J1H180000-84-BLK 08/18/2011 09:55 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 MLRTW-1-AC-C J1H180000-84-LCS 08/18/2011 09:55 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 ICOC v4.8.49

OCTOBER 13, 2011

8/18/2011 9:56:32 AM

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: 09/26/2011

Batch: 1230084 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MLRTW-1-AD-BN								
J1H180000-84-IBLK								
08/18/2011 09:55 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLKR11AC-SAMP Constituent List:
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20
MLRTW1AA-BLK:

MLRTW1AC-LCS:

MLRTW1AD-IBLK:

MLKR11AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRTW1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

OCTOBER 13, 2011

9/20/2011 1:26:33 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/20/2010, 9/25/2011, Batch: '1230084', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230084						
AC		Rev1C	DefordP	9/8/2011 9:50:26 AM		
SC			MaucierlS	IsBatched	8/18/2011 10:06:06 AM	ICOC_RADCALC v4.8.49
SC			DefordP	Sep1C	9/8/2011 9:50:26 AM	RL-LSC-008 REVISION 1
SC			ClarkR	InCnt1	9/8/2011 10:55:26 AM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	9/9/2011 3:42:36 PM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	9/20/2011 1:26:26 PM	RL-DR-001 Rev 2
AC			ClarkR	9/8/2011 10:55:26		
AC			ClarkR	9/9/2011 3:42:36 PM		
AC			antonsonl	9/20/2011 1:26:26 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 4

ICOCFractions v4.8.44

8/24/2011 6:22:02 PM

Sample Preparation/Analysis

Balance Id:1120413753

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

DH UNat_Laser Prp KPA001
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230085 WATER ug/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,AshworthA /BaughB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLFP4-1-AA J1H050499-2-SAMP 08/04/2011 10:30			24.90g,in AmtRec: 1XVIAL;1X500MLAG	24.90g #Containers: 2			Scr:	Alpha: 4.82E-05 uCi/Sa	Beta: 4.95E-05 uCi/Sa	
2 MLFP4-1-AC-X J1H050499-2-DUP 08/04/2011 10:30			25.10g,in AmtRec: 1XVIAL;1X500MLAG	25.10g #Containers: 2			Scr:	Alpha: 4.82E-05 uCi/Sa	Beta: 4.95E-05 uCi/Sa	
3 MLFP5-1-AA J1H050499-3-SAMP 08/04/2011 10:30			25.10g,in AmtRec: 1XVIAL;1X500MLAG	25.10g #Containers: 2			Scr:	Alpha: 8.07E-05 uCi/Sa	Beta: 1.34E-06 uCi/Sa	
4 MLFP5-1-AC-S J1H050499-3-MS 08/04/2011 10:30			24.80g,in AmtRec: 1XVIAL;1X500MLAG	24.80g #Containers: 2	UNSF5248 06/21/11,pd 02/01/86,r		Scr:	Alpha: 8.07E-05 uCi/Sa	Beta: 1.34E-06 uCi/Sa	
5 MLFP6-1-AA J1H050499-4-SAMP 08/04/2011 10:30			25.60g,in AmtRec: 1XVIAL;1X500MLAG	25.60g #Containers: 2			Scr:	Alpha: 1.27E-04 uCi/Sa	Beta: -5.21E-05 uCi/Sa	
6 MLRT5-1-AA-B J1H180000-85-BLK 08/18/2011 09:55 pd			24.90g,in AmtRec:	24.90g #Containers: 1			Scr:	Alpha:	Beta:	
7 MLRT5-1-AC-C J1H180000-85-LCS 08/18/2011 09:55 pd			25.10g,in AmtRec:	25.10g #Containers: 1	UNSF5249 06/21/11,pd 02/01/86,r		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

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ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.56

OCTOBER 13, 2011

8/24/2011 6:22:03 PM

Sample Preparation/Analysis

DH UNat_Laser Prp KPA001
SS Total Uranium by KPA
5I CLIENT: HANFORD

Balance Id:1120413753
Pipet #:

AnalyDueDate: 09/26/2011

Sep1 DT/Tm Tech:

Batch: 1230085 ug/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,AshworthA

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MLRT5-1-AD-C			24.80g,in	24.80g	UNSC4088					
J1H180000-85-LCS					08/23/11,pd 02/01/86,r					
08/18/2011 09:55 pd		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLFP41AA-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
MLFP51AC-MS:

MLRT51AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
MLRT51AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
MLRT51AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

MLFP41AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLFP51AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRT51AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRT51AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLRT51AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

9/26/2011 11:52:13 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/26/2010, 10/1/2011, Batch: '1230085', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1230085						
AC		Rev1C	AshworthA	8/24/2011 6:22:07 PM		
SC			MaucieriS	IsBatched	8/18/2011 10:06:11 AM	ICOC_RADCALC v4.8.49
SC			AshworthA	Prep1C	8/24/2011 6:22:07 PM	RL-PRP-004 REVISION 1
SC			BaughB	InPrep2	9/21/2011 3:07:32 PM	RL-KPA-001 REVISION 1
SC			BaughB	Prep2C	9/23/2011 1:38:22 PM	RL-KPA-001 REVISION 1
SC			SmithD	Cnt1C	9/26/2011 11:06:55 AM	RL-KPA-003 REVISION 0
SC			nortonj	Rev1C	9/26/2011 11:44:47 AM	RL-DR-001 Rev 2
AC			BaughB	9/21/2011 3:07:32 PM		
AC			BaughB	9/23/2011 1:38:22 PM		
AC			SmithD	9/26/2011 11:06:55		
AC			nortonj	9/26/2011 11:44:47		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 5

ICOCFractions v4.8.44

8/11/2011 2:45:09 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)

AnalyDueDate: 09/26/2011

5I CLIENT: HANFORD

Batch: 1223177 **WATER** **mg/L**

PM, Quote: SS , 57671

SEQ Batch, Test: None

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MLKL4-1-AA								
J1H110473-1-SAMP								
08/11/2011 09:32		AmtRec: 1XVIAL;1X500MLAG	#Containers: 2			Scr:	Alpha:	Beta:
2 MLKL4-1-AC-S								
J1H110473-1-MS								
08/11/2011 09:32		AmtRec: 1XVIAL;1X500MLAG	#Containers: 2			Scr:	Alpha:	Beta:
3 MLKL4-1-AD-D								
J1H110473-1-MSD								
08/11/2011 09:32		AmtRec: 1XVIAL;1X500MLAG	#Containers: 2			Scr:	Alpha:	Beta:
4 MLKL4-1-AE-X								
J1H110473-1-DUP								
08/11/2011 09:32		AmtRec: 1XVIAL;1X500MLAG	#Containers: 2			Scr:	Alpha:	Beta:
5 MLKNL-1-AA-B								
J1H110000-177-BLK								
08/11/2011 14:44 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MLKNL-1-AC-C								
J1H110000-177-LCS								
08/11/2011 14:44 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

8/11/2011 2:45:10 PM

Sample Preparation/Analysis

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

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

AnalyDueDate: 09/26/2011

Batch: 1223177 mg/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

MLKL41AA-SAMP Constituent List:

MLKL41AC-MS Constituent List:

MLKL41AD-MSD:

MLKNL1AA-BLK:

MLKNL1AC-LCS:

MLKL41AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLKL41AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLKL41AD-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLKNL1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MLKNL1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B