

Analytical Data Package Prepared For
Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 34563

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05093	S07-001	B1LNX3	J7A150190-1	JMV301AA	9JMV3010	7022418
		B1LNX2	J7A150190-2	JMV331AA	9JMV3310	7022418
		B1LNX0	J7A150190-3	JMV351AA	9JMV3510	7022418
I07-019	S07-012	B1LN84	J7A150192-1	JMV361AA	9JMV3610	7022424
		B1LN86	J7A150192-2	JMV371AA	9JMV3710	7022424
G07-001	S07-012	B1LD49	J7A150199-2	JMV6T1AA	9JMV6T10	7022420
		B1LD48	J7A150199-4	JMV6X1AA	9JMV6X10	7022420
G07-001	S07-012	B1LN56	J7A180283-1	JM2041AA	9JM20410	7022422
		B1LN57	J7A180283-2	JM2051AA	9JM20510	7022422
		B1LN60	J7A180283-3	JM2081AA	9JM20810	7022422
G07-012	S07-012	B1LC58	J7A180307-1	JM22M1AA	9JM22M10	7022417
		B1LC58	J7A180307-1	JM22M1AC	9JM22M10	7022424
		B1LC58	J7A180307-1	JM22M1AD	9JM22M10	7022418
G07-012	S07-012	B1LK17	J7A190134-1	JM3P91AA	9JM3P910	7022415
		B1LK17	J7A190134-1	JM3P91AC	9JM3P910	7022421

Comments:

Report Nbr: 34563

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH		
W05093	G07-012	B1LK17	J7A190134-1	JM3P91AD	9JM3P910	7022422		
		B1LK17	J7A190134-1	JM3P91AE	9JM3P910	7022423		
		B1LK17	J7A190134-1	JM3P91AF	9JM3P910	7022424		
		W07-012	B1LJB8	J7A190147-1	JM30L1AA	9JM30L10	7022418	
		A07-010	B1KL12	J7A190183-1	JM3481AA	9JM34810	7022415	
			B1KL12	J7A190183-1	JM3481AC	9JM34810	7022417	
			B1KL12	J7A190183-1	JM3481AD	9JM34810	7022418	
			B1KL12	J7A190183-1	JM3481AE	9JM34810	7022420	
			B1KL13	J7A190183-2	JM4AA1AA	9JM4AA10	7022415	
			B1KL13	J7A190183-2	JM4AA1AC	9JM4AA10	7022417	
			B1KL13	J7A190183-2	JM4AA1AD	9JM4AA10	7022418	
			B1KL13	J7A190183-2	JM4AA1AE	9JM4AA10	7022420	
			A07-012	B1LJR4	J7A200145-1	JM5H11AA	9JM5H110	7022418
				B1LJR4	J7A200145-1	JM5H11AC	9JM5H110	7022420
		W07-012	B1LHD5	J7A200151-1	JM5J41AA	9JM5J410	7022415	
			B1LHD5	J7A200151-1	JM5J41AC	9JM5J410	7022421	
			B1LHD5	J7A200151-1	JM5J41AD	9JM5J410	7022422	
			B1LHD5	J7A200151-1	JM5J41AE	9JM5J410	7022423	
			B1LHD5	J7A200151-1	JM5J41AF	9JM5J410	7022424	
			B1LHD5	J7A200151-1	JM5J41AG	9JM5J410	7022418	
		S07-012	B1L BX2	J7A200163-1	JM5LJ1AA	9JM5LJ10	7022415	
			B1L BX2	J7A200163-1	JM5LJ1AC	9JM5LJ10	7022417	

Comments:



STL

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

February 27, 2007

Attention: Dot Stewart

SAF Number	:	S07-012, I07-019, W07-012, S07-001, G07-001, G07-012, A07-010, A07-012
Date SDG Closed	:	January 18, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05092
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between January 12, 2007 and January 18, 2007, twenty one water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1LN3	JMV30	WATER	1/12/07
B1LN2	JMV33	WATER	1/12/07
B1LN0	JMV35	WATER	1/12/07
B1LN84	JMV36	WATER	1/12/07
B1LN86	JMV37	WATER	1/12/07
B1LBR8	JMV6R	WATER	1/12/07
B1LD49	JMV6T	WATER	1/12/07
B1LBR7	JMV6V	WATER	1/12/07
B1LD48	JMV6X	WATER	1/12/07
B1LN56	JM204	WATER	1/16/07
B1LN57	JM205	WATER	1/16/07
B1LN60	JM208	WATER	1/16/07

B1LC58	JM22M	WATER	1/16/07
B1LK17	JM3P9	WATER	1/16/07
B1LJB8	JM30L	WATER	1/18/07
B1KL12	JM348	WATER	1/18/07
B1KL13	JM4AA	WATER	1/18/07
B1LJR4	JM5H1	WATER	1/18/07
B1LHD5	JM5J4	WATER	1/18/07
B1LBX2	JM5LJ	WATER	1/18/07

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:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065

Tritium by method RICH-RC-5007

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1LK17) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1LK17) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1LN84) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1LK17) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:

The LCS, batch blank, samples and sample duplicate (B1KL13) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:

The LCS, batch blank, samples, sample duplicate (B1LNX3), and sample matrix spike (B1LNX2) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1LBX2) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1LJR4), and sample matrix spike (B1KL12) 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.

Pacific Northwest National Laboratories
February 27, 2007

Reviewed and approved:

A handwritten signature in cursive script, reading "Sherryl A. Adam". The signature is written in black ink and is positioned above the printed name and title.

Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

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

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

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

Report Definitions

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

2/27/2007 2:23:58 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34563 File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.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:				
9JM20410	B1LN56		MW6-SBB-A1	G07-001	W05093					01/16/2007 10:36				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022422	BETA	12587-47-2	8.81E+00	pCi/L	1.9E+00	2.2E+00		3.04E+00	100.0	9310_ALPHABETA	2.006E-01	L	02/12/2007 17:33	I
9JM20510	B1LN57		MW6-SBB-A1	G07-001	W05093					01/16/2007 10:36				
7022422	BETA	12587-47-2	1.14E+01	pCi/L	2.0E+00	2.5E+00		2.79E+00	100.0	9310_ALPHABETA	2.002E-01	L	02/12/2007 17:33	I
9JM20810	B1LN60		MW6-SBB-A1	G07-001	W05093					01/16/2007 11:28				
7022422	BETA	12587-47-2	2.67E+03	pCi/L	2.9E+01	3.4E+02		4.30E+00	100.0	9310_ALPHABETA	1.319E-01	L	02/12/2007 17:33	I
9JM22M10	B1LC58		MW6-SBB-A1	S07-012	W05093					01/16/2007 12:45				
7022417	I-129L	15046-84-1	4.97E+00	pCi/L	7.8E-01	7.8E-01		3.49E-01	100.0	I129LL_SEP_LEPS	3.9302E+00	L	02/20/2007 11:36	I
7022424	SR-90	10098-97-2	3.21E-02	pCi/L	2.8E-01	2.8E-01	U	6.22E-01	72.2	SRISO_SEP_PRE	1.0003E+00	L	02/11/2007 09:19	I
7022418	TC-99	14133-76-7	3.19E+02	pCi/L	1.0E+01	2.7E+01		9.73E+00	100.0	TC99_ETVDSK_LS	1.256E-01	L	02/02/2007 14:41	I
9JM30L10	B1LJB8		MW6-SBB-A1	W07-012	W05093					01/18/2007 12:25				
7022418	TC-99	14133-76-7	5.41E+02	pCi/L	1.3E+01	4.2E+01		9.74E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	02/02/2007 14:41	I
9JM34810	B1KL12		MW6-SBB-A1	A07-010	W05093					01/18/2007 10:55				
7022415	H-3	10028-17-8	1.88E+02	pCi/L	1.3E+02	1.5E+02	U	3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/03/2007 03:57	I
7022417	I-129L	15046-84-1	1.53E+00	pCi/L	3.6E-01	3.6E-01	U	6.14E-01	98.6	I129LL_SEP_LEPS	3.9405E+00	L	02/20/2007 11:40	I
7022418	TC-99	14133-76-7	8.68E+01	pCi/L	6.4E+00	1.1E+01		9.67E+00	100.0	TC99_ETVDSK_LS	1.262E-01	L	02/02/2007 14:41	I
7022420	Uranium	7440-61-1	3.49E+00	ug/L	3.6E-01	3.6E-01		8.00E-02		UTOT_KPA	2.62E-02	ML	02/23/2007 08:35	I

STL Richland

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.

2/27/2007 2:23:58 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34563 File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.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:				
9JM3P910	B1LK17		MW6-SBB-A1	G07-012	W05093					01/16/2007 09:31				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022415	H-3	10028-17-8	3.46E+01	pCi/L	1.2E+02	1.4E+02	U	2.99E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/03/2007 02:35	I
7022421	ALPHA	12587-46-1	1.36E-01	pCi/L	5.1E-01	5.1E-01	U	1.32E+00	100.0	9310_ALPHABETA	2.00E-01	L	02/12/2007 16:14	I
7022422	BETA	12587-47-2	3.56E+03	pCi/L	3.4E+01	4.5E+02		4.16E+00	100.0	9310_ALPHABETA	1.206E-01	L	02/12/2007 17:33	I
7022423	BE-7	13966-02-4	9.53E+00	pCi/L	2.5E+01	2.5E+01	U	4.75E+01		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	CO-60	10198-40-0	-1.62E+00	pCi/L	2.7E+00	2.7E+00	U	4.49E+00		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	CS-134	13967-70-9	-9.13E-01	pCi/L	2.9E+00	2.9E+00	U	5.04E+00		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	CS-137	10045-97-3	1.89E+00	pCi/L	2.1E+00	2.1E+00	U	4.50E+00		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	EU-152	14683-23-9	4.62E-01	pCi/L	5.6E+00	5.6E+00	U	1.03E+01		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	EU-154	15585-10-1	-5.82E+00	pCi/L	7.1E+00	7.1E+00	U	1.14E+01		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	EU-155	14391-16-3	2.16E+00	pCi/L	5.9E+00	5.9E+00	U	1.10E+01		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	K-40	13966-00-2	-1.59E+01	pCi/L	5.6E+01	5.6E+01	U	1.25E+02		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	RU-106	13967-48-1	1.35E+00	pCi/L	2.3E+01	2.3E+01	U	4.17E+01		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022423	SB-125	14234-35-6	-2.01E+00	pCi/L	5.3E+00	5.3E+00	U	9.13E+00		GAMMALL_GS	1.9501E+00	L	02/14/2007 07:50	I
7022424	SR-90	10098-97-2	2.00E+03	pCi/L	1.3E+01	3.0E+02		6.86E-01	86.6	SRISO_SEP_PRE	9.977E-01	L	02/11/2007 08:53	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:				
9JM4AA10	B1KL13		MW6-SBB-A1	A07-010	W05093					01/18/2007 07:30				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022415	H-3	10028-17-8	-3.71E+01	pCi/L	1.2E+02	1.4E+02	U	3.04E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/03/2007 05:18	I
7022417	I-129L	15046-84-1	6.71E-02	pCi/L	1.2E-01	1.2E-01	U	2.48E-01	98.9	I129LL_SEP_LEPS	3.9154E+00	L	02/20/2007 11:40	I
7022418	TC-99	14133-76-7	3.63E+00	pCi/L	4.2E+00	5.9E+00	U	9.78E+00	100.0	TC99_ETVDSK_LS	1.257E-01	L	02/02/2007 14:41	I
7022420	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.61E-02	ML	02/23/2007 08:39	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:				
9JM5H110	B1LJR4		MW6-SBB-A1	A07-012	W05093					01/18/2007 13:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022418	TC-99	14133-76-7	4.78E+01	pCi/L	5.5E+00	8.9E+00		9.68E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	02/02/2007 14:41	I
7022420	Uranium	7440-61-1	5.12E+00	ug/L	5.3E-01	5.3E-01		8.25E-02		UTOT_KPA	2.54E-02	ML	02/23/2007 08:43	I

STL Richland Report

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34563 File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.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:				
9JM5J410	B1LHD5		MW6-SBB-A1	W07-012	W05093					01/18/2007 12:32				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022415	H-3	10028-17-8	4.46E+03	pCi/L	2.5E+02	3.2E+02		3.00E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/03/2007 06:40	I
7022421	ALPHA	12587-46-1	1.15E+00	pCi/L	1.0E+00	1.1E+00	U	1.55E+00	100.0	9310_ALPHABETA	1.784E-01	L	02/12/2007 16:14	I
7022422	BETA	12587-47-2	8.49E+00	pCi/L	1.8E+00	2.1E+00		2.79E+00	100.0	9310_ALPHABETA	2.012E-01	L	02/12/2007 17:33	I
7022423	BE-7	13966-02-4	-4.34E+00	pCi/L	2.1E+01	2.1E+01	U	3.82E+01		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	CO-60	10198-40-0	1.02E+00	pCi/L	2.9E+00	2.9E+00	U	5.73E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	CS-134	13967-70-9	3.16E+00	pCi/L	2.6E+00	2.6E+00	U	5.55E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	CS-137	10045-97-3	-9.69E-01	pCi/L	2.3E+00	2.3E+00	U	4.01E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	EU-152	14683-23-9	-2.86E+00	pCi/L	5.8E+00	5.8E+00	U	9.73E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	EU-154	15585-10-1	4.00E+00	pCi/L	7.3E+00	7.3E+00	U	1.52E+01		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	EU-155	14391-16-3	7.73E-01	pCi/L	3.5E+00	3.5E+00	U	6.42E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	K-40	13966-00-2	-4.54E+01	pCi/L	4.7E+01	4.7E+01	U	9.84E+01		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	RU-106	13967-48-1	7.77E+00	pCi/L	2.0E+01	2.0E+01	U	3.92E+01		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022423	SB-125	14234-35-6	2.54E+00	pCi/L	4.5E+00	4.5E+00	U	8.92E+00		GAMMALL_GS	2.0019E+00	L	02/14/2007 07:51	I
7022424	SR-90	10098-97-2	4.29E-01	pCi/L	3.0E-01	3.0E-01	U	5.58E-01	77.9	SRISO_SEP_PRE	1.0012E+00	L	02/11/2007 09:19	I
7022418	TC-99	14133-76-7	1.25E+01	pCi/L	4.4E+00	6.5E+00		9.64E+00	100.0	TC99_ETVDSK_LS	1.263E-01	L	02/02/2007 14:41	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:				
9JM5LJ10	B1LBX2		MW6-SBB-A1	S07-012	W05093					01/18/2007 13:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022415	H-3	10028-17-8	2.21E+02	pCi/L	1.3E+02	1.5E+02	U	3.00E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/03/2007 08:02	I
7022417	I-129L	15046-84-1	1.73E-02	pCi/L	1.3E-01	1.3E-01	U	2.42E-01	99.2	I129LL_SEP_LEPS	3.9489E+00	L	02/20/2007 13:24	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:				
9JMV3010	B1LNX3		MW6-SBB-A1	S07-001	W05093					01/12/2007 07:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022418	TC-99	14133-76-7	3.14E-01	pCi/L	4.0E+00	5.7E+00	U	9.77E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	02/02/2007 14:41	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:
9JMV3310	B1LNX2		MW6-SBB-A1	S07-001	W05093					01/12/2007 10:23

2/27/2007 2:23:58 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34563 File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7022418	TC-99	14133-76-7	4.95E+00	pCi/L	4.3E+00	6.1E+00	U	1.00E+01	100.0	TC99_ETVDSK_LS	1.249E-01	L	02/02/2007 14:41	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:				
9JMV3510	B1LNX0		MW6-SBB-A1	S07-001	W05093					01/12/2007 11:48				
7022418	TC-99	14133-76-7	4.83E+00	pCi/L	4.2E+00	6.1E+00	U	9.95E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	02/02/2007 14:41	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:				
9JMV3610	B1LN84		MW6-SBB-A1	I07-019	W05093					01/12/2007 11:48				
7022424	SR-90	10098-97-2	1.08E+00	pCi/L	3.1E-01	3.5E-01		5.31E-01	87.6	SRISO_SEP_PRE	1.0026E+00	L	02/11/2007 09:23	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JMV3710	B1LN86		MW6-SBB-A1	I07-019	W05093					01/12/2007 09:38				
7022424	SR-90	10098-97-2	2.72E-01	pCi/L	3.0E-01	3.0E-01	U	5.97E-01	85.2	SRISO_SEP_PRE	1.0052E+00	L	02/11/2007 09:23	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JMV6T10	B1LD49		MW6-SBB-A1	S07-012	W05093					01/12/2007 13:05				
7022420	Uranium	7440-61-1	8.09E+00	ug/L	8.3E-01	8.3E-01		8.35E-02		UTOT_KPA	2.51E-02	ML	02/23/2007 08:29	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JMV6X10	B1LD48		MW6-SBB-A1	S07-012	W05093					01/12/2007 07:30				
7022420	Uranium	7440-61-1	-5.27E-03	ug/L	2.1E-03	2.1E-03	U	8.42E-02		UTOT_KPA	2.49E-02	ML	02/23/2007 08:31	I

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05093.Edd, h:\Reportdb\eddd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM6491AB

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/18/2007

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
7022415 BLK	H-3 10028-17-8	-8.63E+01	pCi/L	1.3E+02 1.2E+02	U	3.00E+02	100.0		906.0_H3_LSC	5.00E-03 L	02/02/2007 21:08				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM6491DX

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022415 BLK	H-3 10028-17-8	4.91E+01	pCi/L	1.4E+02 1.3E+02	U	3.06E+02	100.0		906.0_H3_LSC	5.00E-03 L	02/02/2007 23:51				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65C1AB

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 07:30

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BD	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022417 BLK	I-129L 15046-84-1	8.57E-02	pCi/L	1.2E-01 1.2E-01	U	2.50E-01	100.0		I129LL_SEP_L	3.9987E+00 L	02/20/2007 13:24				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65D1AB

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/12/2007 07:15

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BF	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022418 BLK	TC-99 14133-76-7	2.10E+00	pCi/L	5.8E+00 4.1E+00	U	9.61E+00	100.0		TC99_ETVDSK	1.263E-01 L	02/02/2007 14:41				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65E1AB	Sdg/Rept Nbr: W05093 34563	Collection Date: 01/18/2007 13:50
Client Id: NA	Matrix: WATER WATER	Sample On Date:
Moisture/Solids%*:	QC Type: BLK	Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BH	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022420 BLK	Uranium 7440-61-1	0.00E+00	ug/L	0.0E+00 0.0E+00	U	2.10E-01			UTOT_KPA	2.51E-02 ML	02/23/2007 08:21				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65G1AB

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/16/2007

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
7022421 BLK	ALPHA 12587-46-1	-3.18E-02	pCi/L	2.3E-01 2.3E-01	U	8.50E-01	100.0		9310_ALPHAB	1.991E-01 L	02/12/2007 16:14				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65H1AB

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/16/2007

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
7022422 BLK	BETA 12587-47-2	1.30E+00	pCi/L	1.2E+00 1.2E+00	U	2.41E+00	100.0		9310_ALPHAB	2.01E-01 L	02/12/2007 17:33				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65K1AB

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/16/2007

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
7022423 BLK	BE-7 13966-02-4	-1.56E+01	pCi/L	2.2E+01 2.2E+01	U	3.63E+01			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	CO-60 10198-40-0	-1.10E+00	pCi/L	1.4E+00 1.4E+00	U	2.30E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	CS-134 13967-70-9	2.32E+00	pCi/L	2.4E+00 2.4E+00	U	5.18E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	CS-137 10045-97-3	1.46E+00	pCi/L	2.1E+00 2.1E+00	U	4.40E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	EU-152 14683-23-9	-2.63E+00	pCi/L	5.4E+00 5.4E+00	U	9.34E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	EU-154 15585-10-1	1.47E+00	pCi/L	6.1E+00 6.1E+00	U	1.28E+01			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	EU-155 14391-16-3	-1.35E+00	pCi/L	3.8E+00 3.8E+00	U	6.77E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	K-40 13966-00-2	-3.75E+00	pCi/L	4.1E+01 4.1E+01	U	8.98E+01			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	RU-106 13967-48-1	-1.02E+01	pCi/L	1.6E+01 1.6E+01	U	2.66E+01			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D
7022423 BLK	SB-125 14234-35-6	2.43E+00	pCi/L	4.6E+00 4.6E+00	U	9.23E+00			GAMMALL_GS	2.0003E+00 L	02/14/2007 07:52				D

Tuesday, February 27, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05093.Edd, h:\Reportdb\edd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM65M1AB

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 11:48

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	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
7022424 BLK	SR-90 10098-97-2	2.16E-01	pCi/L	2.8E-01 2.7E-01	U	5.78E-01	73.2		SRISO_SEP_P	1.0017E+00 L	02/11/2007 09:19				D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM6491CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BA	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022415 BS	H-3 10028-17-8	2.39E+03	pCi/L	2.4E+02 2.0E+02		3.00E+02	100.0	2.71E+03 88.1	906.0_H3_LSC	5.00E-03 L	02/02/2007 22:30			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadI\Rad\W05093.Edd, h:\Reportdb\edd\FeadI\Rad\34563.Edd

Lab Sample Id: JM6491EM

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022415 BS	H-3 10028-17-8	2.33E+03	pCi/L	2.4E+02 2.0E+02		3.04E+02	100.0	2.71E+03 85.9	906.0_H3_LSC	5.00E-03 L	02/03/2007 01:13			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65C1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 07:30

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022417 BS	I-129L 15046-84-1	9.21E+00	pCi/L	1.1E+00 1.1E+00		3.82E-01	97.5	9.97E+00 92.4	I129LL_SEP_L	3.8658E+00 L	02/20/2007 15:23			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM65D1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 07:15

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022418 BS	TC-99 14133-76-7	5.13E+02	pCi/L	4.0E+01 1.3E+01		9.69E+00	100.0	5.38E+02 95.4	TC99_ETVDSK	1.258E-01 L	02/02/2007 14:41			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65E1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/18/2007

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
7022420 BS	Uranium 7440-61-1	3.54E+01	ug/L	4.2E+00 4.2E+00		8.32E-02		3.59E+01 98.5	UTOT_KPA	2.52E-02 ML	02/23/2007 08:26			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05093.Edd, h:\Reportdb\eddd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65E1DS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/18/2007

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
7022420 BS	Uranium 7440-61-1	3.49E+00	ug/L	3.6E-01 3.6E-01		7.97E-02		3.46E+00 100.7	UTOT_KPA	2.63E-02 ML	02/23/2007 08:28			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM65G1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/16/2007

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
7022421 BS	ALPHA 12587-46-1	1.98E+01	pCi/L	5.4E+00 2.9E+00		1.04E+00	100.0	2.21E+01 89.9	9310_ALPHAB	2.047E-01 L	02/12/2007 16:14			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05093.Edd, h:\Reportdb\edd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM65H1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/16/2007

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
7022422 BS	BETA 12587-47-2	1.87E+01	pCi/L	3.3E+00 2.2E+00		2.49E+00	100.0	2.23E+01 84.2	9310_ALPHAB	2.023E-01 L	02/12/2007 17:33			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05093.Edd, h:\Reportdb\eddd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM65K1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/16/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/16/2007

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
7022423 BS	CO-60 10198-40-0	3.33E+01	pCi/L	7.5E+00 7.5E+00		3.69E+00		3.82E+01 87.1	GAMMALL_GS	2.00E+00 L	02/14/2007 07:53			70 130	D
7022423 BS	CS-137 10045-97-3	2.57E+01	pCi/L	6.0E+00 6.0E+00		3.94E+00		2.48E+01 103.5	GAMMALL_GS	2.00E+00 L	02/14/2007 07:53			70 130	D
7022423 BS	EU-152 14683-23-9	6.46E+01	pCi/L	1.5E+01 1.5E+01		1.11E+01		7.69E+01 84.0	GAMMALL_GS	2.00E+00 L	02/14/2007 07:53			70 130	D

Tuesday, February 27, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM65M1CS

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 11:48

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	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
7022424 BS	SR-90 10098-97-2	1.33E+01	pCi/L	2.1E+00 8.1E-01		5.07E-01	75.7	1.36E+01 97.9	SRISO_SEP_P	9.999E-01 L	02/11/2007 09:19			70 130	D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05093.Edd, h:\Reportdb\edd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM3P91GR

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/16/2007 09:31

Client Id: B1LK17

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
G07-012	MW6-SBB-A19981								AT	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
7022421 DUP	ALPHA 12587-46-1	1.97E-01 1.36E-01	pCi/L	4.4E-01 4.4E-01	U	1.01E+00	100.0		9310_ALPHAB	2.012E-01 L	02/12/2007 16:14	36.6 20.0	0.2 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05093.Edd, h:\Reportdb\edd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM3P91HR

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/16/2007 09:31

Client Id: B1LK17

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
G07-012	MW6-SBB-A19981								AU	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022422 DUP	BETA 12587-47-2	3.13E+03 3.56E+03	pCi/L	4.1E+02 3.2E+01		4.25E+00	100.0		9310_ALPHAB	1.208E-01 L	02/12/2007 17:33	12.8 20.0	1.5 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05093.Edd, h:\Reportdb\edd\Fead\I\Rad\34563.Edd

Lab Sample Id: JM3P91JR

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/16/2007 09:31

Client Id: B1LK17

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
G07-012	MW6-SBB-A19981								AV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022423 DUP	BE-7 13966-02-4	3.93E+00 9.53E+00	pCi/L	2.5E+01 2.5E+01	U	4.61E+01			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	83.1 20.0	0.3 3		D
7022423 DUP	CO-60 10198-40-0	5.11E-01 -1.62E+00	pCi/L	2.3E+00 2.3E+00	U	4.88E+00			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	0.0 20.0	1.3 3		D
7022423 DUP	CS-134 13967-70-9	-2.32E+00 -9.13E-01	pCi/L	2.5E+00 2.5E+00	U	3.89E+00			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	0.0 20.0	0.8 3		D
7022423 DUP	CS-137 10045-97-3	-1.28E+00 1.89E+00	pCi/L	2.5E+00 2.5E+00	U	4.26E+00			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	1048.7 20.0	1.8 3		D
7022423 DUP	EU-152 14683-23-9	2.51E+00 4.62E-01	pCi/L	6.3E+00 6.3E+00	U	1.18E+01			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	137.7 20.0	0.5 3		D
7022423 DUP	EU-154 15585-10-1	-2.59E+00 -5.82E+00	pCi/L	6.1E+00 6.1E+00	U	1.10E+01			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	0.0 20.0	0.7 3		D
7022423 DUP	EU-155 14391-16-3	-3.90E+00 2.16E+00	pCi/L	5.9E+00 5.9E+00	U	9.69E+00			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	0.0 20.0	1.4 3		D
7022423 DUP	K-40 13966-00-2	-2.39E+01 -1.59E+01	pCi/L	4.5E+01 4.5E+01	U	1.03E+02			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	0.0 20.0	0.3 3		D
7022423 DUP	RU-106 13967-48-1	-1.22E+00 1.35E+00	pCi/L	2.2E+01 2.2E+01	U	3.97E+01			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	3844.9 20.0	0.2 3		D
7022423 DUP	SB-125 14234-35-6	4.66E+00 -2.01E+00	pCi/L	5.4E+00 5.4E+00	U	1.10E+01			GAMMALL_GS	1.9052E+00 L	02/14/2007 07:50	503.5 20.0	1.7 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM4AA1FR

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/18/2007 07:30

Client Id: B1KL13

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
A07-010	MW6-SBB-A19981								AW	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7022417 DUP	I-129L 15046-84-1	2.10E-01 6.71E-02	pCi/L	1.3E-01 1.3E-01	U	2.87E-01	98.6		I129LL_SEP_L	3.912E+00 L	02/20/2007 13:20	103.2 20.0	1.5 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05093.Edd, h:\Reportdb\edd\Fead\Rad\34563.Edd

Lab Sample Id: JM5H11DR

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 13:50

Client Id: B1LJR4

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
A07-012	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
7022420 DUP	Uranium 7440-61-1	5.12E+00 5.12E+00	ug/L	5.3E-01 5.3E-01		8.15E-02			UTOT_KPA	2.57E-02 ML	02/23/2007 08:45	.1 20.0	0. 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM5LJ1DR

Sdg/Rept Nbr: W05093

34563

Collection Date: 01/18/2007 13:50

Client Id: B1LBX2

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S07-012	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
7022415 DUP	H-3 10028-17-8	1.89E+02 2.21E+02	pCi/L	1.5E+02 1.3E+02	U	3.00E+02	100.0		906.0_H3_LSC	5.00E-03 L	02/03/2007 09:24	15.7 20.0	0.3 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JMV301CR

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 07:15

Client Id: B1LNX3

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S07-001	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
7022418 DUP	TC-99 14133-76-7	9.26E-01 3.14E-01	pCi/L	5.8E+00 4.1E+00	U	9.71E+00	100.0		TC99_ETVDSK	1.251E-01 L	02/02/2007 14:41	98.7 20.0	0.2 3		D

Tuesday, February 27, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W05093.Edd, h:\Reportdb\ledd\Fead\I\Rad\34563.Edd

Lab Sample Id: JMV361CR

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 11:48

Client Id: B1LN84

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I07-019	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
7022424 DUP	SR-90 10098-97-2	9.94E-01 1.08E+00	pCi/L	3.6E-01 3.2E-01		5.86E-01	77.9		SRISO_SEP_P	1.0092E+00 L	02/11/2007 09:23	8.5 20.0	0.3 3		D

Tuesday, February 27, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JM3481FW

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/18/2007 10:55

Client Id: B1KL12

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 01/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
A07-010	MW6-SBB-A19981								AS	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
7022420 MS	Uranium 7440-61-1	3.50E+01	ug/L	4.6E+00 4.6E+00		7.91E-02		3.44E+01 101.6	UTOT_KPA	2.65E-02 ML	02/23/2007 08:37			60 140	D

Tuesday, February 27, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05093.Edd, h:\Reportdb\edd\FeadIV\Rad\34563.Edd

Lab Sample Id: JMV331CW

Sdg/Rept Nbr: W05093 34563

Collection Date: 01/12/2007 10:23

Client Id: B1LNX2

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 01/12/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S07-001	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
7022418 MS	TC-99 14133-76-7	3.34E+03	pCi/L	2.3E+02 3.2E+01		9.90E+00	100.0	3.60E+03 92.9	TC99_ETVDSK	1.252E-01 L	02/02/2007 14:41			60 140	D

Lot No., Due Date: J7A190134,J7A200151; 03/02/2007,03/05/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7022421; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W05093; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used Analysis Volume => JM5J41AC 178.40<200.00 Q:VB	Yes	No	N/A
8.07	The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JM3P91AG ALPHA 37.0 (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17	Tracer within Control Limits. OK	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	Yes	No	N/A
8.24	Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A
No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions.) Yes No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions.) Yes No N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate. Yes No N/A
OK

First Level Review *Roa Antonson* Date 2/13/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7022421
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances 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: Sheryl A. Adams Date: 2-13-07

Lot No., Due Date: J7A180283,J7A190134,J7A200151; 03/02/2007,03/05/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7022422; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W05093; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used Analysis Volume => JM2081AA 131.90<200.00 JM3P91AD 120.60<200.00 Q:VB	Yes	No	N/A
8.07	The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBLks) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17	Tracer within Control Limits. OK	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JM2081AA BETA 4.3E+00>4.0E+00 JM3P91AD BETA 4.2E+00>4.0E+00 JM3P91AH BETA 4.2E+00>4.0E+00 Q:C1	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JM2041AA BETA 8.8E+00 L:3.0E+00 JM2051AA BETA 1.1E+01 L:2.8E+00 JM2081AA BETA 2.7E+03 L:4.3E+00 JM3P91AD BETA 3.6E+03 L:4.2E+00 JM5J41AD BETA 8.5E+00 L:2.8E+00	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => BETA	Yes	No	N/A

OK; No Callin Level Found => BETA

8.24 Result + 3s >=0, Not Too Negative.
OK

Yes No N/A

8.25 Counting Spectrum are within FWHM Limits.
No FWHM found in Batch Data!

Yes No N/A

8.26 Instruments have Current Calibrations.

Yes No N/A

8.27 Correct Count Library Used.
No Count Library found in Batch Data!

Yes No N/A

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions.)

Yes No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions.)

Yes No N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate.
OK

Yes No N/A

First Level Review

Lisa Antonson

Date

2/3/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7022422
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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: Sheryl A. Adams Date: 2-12-07

Lot No., Due Date: J7A180307,J7A190134,J7A200151,J7A150192; 03/02/2007,03/05/2007,02/26/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7022424; RSR85907 Sr-85/90 by GPC-7
 SDG, Matrix: W05093; 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 Review

Pam Anderson

Date

2/12/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7022424
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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: Sherryl A Adams Date: 2-12-07

Lot No., Due Date: J7A190134,J7A200151; 03/02/2007,03/05/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7022423; RGAMMA Gamma by GER
 SDG, Matrix: W05093; 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 Review Pam Anderson

Date 2-14-07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7022423

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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: Erica Jod

Date: 2/15/17



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

OC Batch Number:

7022417
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		✓
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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

Sheryl A. Adams

Date: 2-23-07

Lot No., Due Date: J7A180307,J7A190147,J7A190183,J7A200145,J7A200151,J7A150190;
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7022418; RTC99 Tc-99 by LSC
 SDG, Matrix: W05093; WATER

8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JMV331AC TCSG<->TCSE Q:V9	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used OK	Yes	No	N/A
8.07 The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JMV301AC TC-99 120.0 (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16 MS within Control Limits. OK	Yes	No	N/A
8.17 Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	Yes	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A
No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate. Yes No N/A
OK

First Level Review Pam Anderson

Date 2-5-07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: _____

7022418
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances 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

Sheryl A Adam

Date: 2-6-07

Lot No., Due Date: J7A190183,J7A190134,J7A200151,J7A200163; 03/05/2007,03/02/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7022415; RTRITIUM H-3 by LSC
SDG, Matrix: W05093; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used Analysis Volume => JM3P91AA 5.00<10.00 JM3481AA 5.00<10.00 JM4AA1AA 5.00<10.00 JM5J41AA 5.00<10.00 JM5LJ1AA 5.00<10.00 Q:VB <i>OR AL 2/7/07</i>	Yes	No	N/A
8.07	The Correct Count Geometry was Used. Count Geometry => JM6491AF SVP15/5<>SVP10/10 JM6491AG SVP15/5<>SVP10/10 JM6491AA SVP15/5<>SVP10/10 JM6491AC SVP15/5<>SVP10/10 JM6491AD SVP15/5<>SVP10/10 JM6491AE SVP15/5<>SVP10/10 JM3P91AA SVP15/5<>SVP10/10 JM3481AA SVP15/5<>SVP10/10 JM4AA1AA SVP15/5<>SVP10/10 JM5J41AA SVP15/5<>SVP10/10 JM5LJ1AA SVP15/5<>SVP10/10 JM5LJ1AD SVP15/5<>SVP10/10 Q:VC <i>OR AL 2/7/07</i>	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. OK	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. OK	Yes	No	N/A
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17	Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2	Comments:			

8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	<input checked="" type="checkbox"/>	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	<input checked="" type="checkbox"/>	No	N/A
8.24	Result + 3s >=0, Not Too Negative. OK	<input checked="" type="checkbox"/>	No	N/A
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	<input checked="" type="checkbox"/> N/A
8.26	Instruments have Current Calibrations.	Yes	No	N/A
8.27	Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	<input checked="" type="checkbox"/> N/A
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3	Comments:			
8.31	Results Blank Subtracted as Appropriate. OK	<input checked="" type="checkbox"/>	No	N/A



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7022415
W05093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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 Sheryl A. Adams Date: 2-7-07

Lot No., Due Date: J7A190183,J7A200145,J7A150199; 03/05/2007,02/26/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7022420; RUNAT UNat by KPA
 SDG, Matrix: W05093; WATER

1.0 COC

1.1 Is the ICC 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

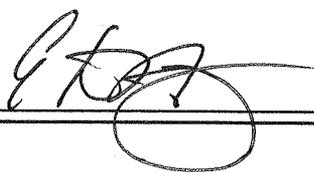
5.4 Was transcription checked? Yes No N/A

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 Review



Date

2/27/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7022420
605093

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?	/		
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances 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: Sheryl A Adam Date: 2-27-07

Collector D. B. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. S07-001	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. JANUARY 2007	Ice Chest No. Temp. SMC-458	Method of Shipment Govt. Vehicle
Shipped To (Lab) Severn Trent Incorporated, Richland	Priority: 45 Days	Bill of Lading/Air Bill No.
Protocol SURV	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LNX3		W	12-07	0715	1x20-mL P	Activity Scan	None
B1LNX3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
<div style="font-size: 2em; opacity: 0.5; transform: rotate(-15deg);">JmV30</div>							

Relinquished By D. B. BREWINGTON	Print 	Sign 	Date/Time JAN 12 2007 1410	Received By L. Smith S. Smith	Print 	Sign 	Date/Time JAN 12 2007 1410	Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

Collector Fluor Hanford D. R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. S07-001	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV JANUARY 2007	HNF-N-506 3	Ice Chest No. <u>3ML458</u> Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LNX2		W	1-12-07	1023	1x20-mL P	Activity Scan	None
B1LNX2		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
JMV33							

Relinquished By Fluor Hanford D. R. BREWINGTON	Print <i>D.R. Brewington</i>	Sign <i>[Signature]</i>	Date/Time 140 JAN 12 2007	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 140 JAN 12 2007	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	



STL

Sample Check-in List

Date/Time Received: 1/12/07 1400

Client: PNNL

SDG #: W05093 NA () SAF #: 507-001 NA ()

Work Order Number: J7A150190

Chain of Custody # 507-001-112,113,106

Shipping Container ID: _____

Air Bill # _____

1. Custody Seals on shipping container intact? NA () Yes No ()
2. Custody Seals dated and signed? NA () Yes No ()
3. Chain of Custody record present? Yes No ()
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet () Dry ()
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA Yes () No ()
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA () pH < 2 pH > 2 () pH > 9 ()
11. Sample Location, Sample Collector Listed? * Yes No ()
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes () No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith

Date: 1/12/07 1400

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

() No action necessary; process as is.

Project Manager _____ Date _____



STL

Sample Check-in List

Date/Time Received: 11/12/07 1400

Client: PWNL SDG #: W05093 NA () SAF #: I07-019 NA ()

Work Order Number: J7A160192 Chain of Custody # I07-019-52,58

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA () Yes () No ()
2. Custody Seals dated and signed? NA () Yes () No ()
3. Chain of Custody record present? Yes () No ()
4. Cooler temperature: _____ NA () 5. Vermiculite/packing materials is NA () Wet () Dry ()
6. Number of samples in shipping container: 12 Samples
7. Sample holding times exceeded? NA () Yes () No ()
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - _____ appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA () pH < 2 () pH > 2 () pH > 9 ()
11. Sample Location, Sample Collector Listed? * Yes () No ()
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes () No ()
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Sm. Vh Date: 11/12/07 1400

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

() No action necessary; process as is.

Project Manager _____ Date _____

PNNL ⁴⁴J7A150185
 W050973
 Rec 02-26-07
 H 01-15-07
 Pw 1/15/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
S07-012-575

Page 1 of 1

Collector Hanford K. B. HULSE	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. S07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. DECEMBER 2006	HPF-N-506-4	Ice Chest No. Temp. SML-442
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. 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 concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LBR8		W	1/20/07	1705	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1) JMV6R	None
B1LD49		W	↓	↓	1x20-mL P	Activity Scan	None
B1LD49		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JMV6T	HNO3 to pH <2
JAN 20 08 01-15-07							

Relinquished By Fluor Hanford K. B. HULSE	Received By S. Smith	Matrix *
JAN 12 2007 1330	JAN 12 2007 1330	S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Received By	
FINAL SAMPLE DISPOSITION	Disposed Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By
		Date/Time

74
 PNNL J7A1501-80 88 01-15-07
 W050973 R 1/15/07
 Dec 02 26 07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S07-012-574
 Page 1 of 1

Collector Fluor Hanford K. B. HULSE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN FAX
SAF No. S07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title SURV. DECEMBER 2006	Method of Shipment Govt. Vehicle	Ice Chest No. SM2142	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland		Bill of Lading/Air Bill No.	
Protocol SURV	Priority: 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LBR7		W	11207	0730	1x20-mL P	Activity Scan	None
B1LBR7		W	↓	↓	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1) JMV6V	None
B1LD48		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JMV6X	HNO3 to pH <2
						JAN 12 01-15-07	

Relinquished By Fluor Hanford K. B. HULSE	Print K. B. HULSE	Sign <i>[Signature]</i>	Date/Time JAN 12 2007 1330	Received By S. Smith	Print S. Smith	Sign <i>[Signature]</i>	Date/Time JAN 12 2007 1330	Matrix *
Relinquished By	Date/Time	Received By	Date/Time					S = Soil DS = Drum Solid
Relinquished By	Date/Time	Received By	Date/Time					SE = Sediment DI. = Drum Liquid
Relinquished By	Date/Time	Received By	Date/Time					SO = Solid T = Tissue
Relinquished By	Date/Time	Received By	Date/Time					SL = Sludge WT = Wine
Relinquished By	Date/Time	Received By	Date/Time					W = Water L. = Liquid
Relinquished By	Date/Time	Received By	Date/Time					O = Oil V = Vegetation
Relinquished By	Date/Time	Received By	Date/Time					A = Air X = Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	



STL

Sample Check-in List

Date/Time Received: 11/21/07 1330

Client: PWWL SDG #: 005097

NA () SAF #: 507-012 NA ()

Work Order Number: J7A150185

Chain of Custody # 16107

NA () Yes () No ()

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA () Yes () No ()
2. Custody Seals dated and signed? NA () Yes () No ()
3. Chain of Custody record present? Yes () No ()
4. Cooler temperature: _____ NA () 5. Vermiculite/packing materials is NA () Wet () Dry ()
Yes () No ()
6. Number of samples in shipping container: 4 Samples NA () Yes () No ()
7. Sample holding times exceeded? NA () Yes () No ()
8. Samples have: _____ tape _____ hazard labels
_____ custody seals appropriate samples labels
9. Samples are: in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA () pH < 2 () pH > 9 ()
11. Sample Location, Sample Collector Listed? * Yes () No ()
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes () No ()
13. Description of anomalies (include sample numbers): _____

Sample Custodian: J. Am. Ve Date: 11/21/07 1330

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____
[] No action necessary, process as is.

Project Manager _____ Date _____
LS-023-9/03, Rev. 5

PNNL *J7A180283*
W05093
Dec 03-02-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G07-001-13**
 Page 1 of 1

Collector M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. G07-001	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title 1NR2-RB JANUARY 2007	<i>HNF-N-5063</i>	Ice Chest No. <i>TJ2</i>	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment	Bill of Lading/Air Bill No.		
Protocol SURV	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LN57		W	<i>1-16-07</i>	<i>1036</i>	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1LN57		W	<i>1-16-07</i>	<i>1036</i>	1x20-mL P	Activity Scan	None
						<i>Jm205</i>	

Relinquished By M.R. WEIL	Print <i>M.R. Weil</i>	Sign <i>M.R. Weil</i>	Date/Time JAN 16 2007 14:15	Received By DAVID HARBISON	Print <i>David Harbison</i>	Sign <i>David Harbison</i>	Date/Time JAN 16 2007 14:15	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time					
Relinquished By	Date/Time	Received By	Date/Time					
Relinquished By	Date/Time	Received By	Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	



STL

Sample Check-in List

Date/Time Received: 11/16/07 1430

Client: PNL

SDG #: W05093 NA SAF #: 607-001 NA

Work Order Number: J7A180283

Chain of Custody # G-07-001-12,13,14

Shipping Container ID: _____

Air Bill # _____

1. Custody Seals on shipping container intact? NA Yes No
2. Custody Seals dated and signed? NA Yes No
3. Chain of Custody record present? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
11. Sample Location, Sample Collector Listed? * Yes No
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: DH [Signature]

Date: 11/16/07 1430

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____

PNNL J7A186307
W05093
Dec 03-02-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S07-012-32
Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. S07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title SURV. DECEMBER 2006	HNF-N-506.4	Ice Chest No. SML-442	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol SURV	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes No
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LC58		W	1-16-07	1245	1x20-mL P	Activity Scan	None
B1LC58		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LC58		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LC58		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
JM22M							

Relinquished By Fluor Hanford D. P. CONNOLLY	Print	Sign	Date/Time 1/15 JAN 16 2007	Received By DAVID HARBINSON	Print	Sign	Date/Time 4/15 JAN 16 2007		
Relinquished By	Date/Time	Received By	Date/Time	Received By	Date/Time	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other			
Relinquished By	Date/Time	Received By	Date/Time	Received By	Date/Time				
Relinquished By	Date/Time	Received By	Date/Time	Received By	Date/Time				
Relinquished By	Date/Time	Received By	Date/Time	Received By	Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time		



STIL

Sample Check-in List

Date/Time Received: 11/6/07 1430

Client: PWL SDG #: 005093 NA () SAF #: 507-012 NA ()

Work Order Number: 0774180307 Chain of Custody # 507-012-32 NA ()

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA () Yes () No ()
2. Custody Seals dated and signed? NA () Yes () No ()
3. Chain of Custody record present? Yes () No ()
4. Cooler temperature: _____ NA () 5. Vermiculite/packing materials is NA () Wet () Dry ()
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA () Yes () No ()
8. Samples have: _____ NA () Yes () No ()
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - _____ appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA () pH < 2 () pH > 2 () pH > 9 ()
11. Sample Location, Sample Collector Listed? *
 - Yes () No ()
 *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes () No ()
13. Description of anomalies (include sample numbers): _____

Sample Custodian: DHS/DIA Date: 11/6/07 1430

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary, process as is.
Project Manager _____ Date _____

PNNL *J7A190134*
W05093
 FLUOR HANFORD *Dwe 03-02-07*

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G07-012-54**
 Page 1 of 1

Collector M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN FAX
SAF No. G07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title INR2-RB, DECEMBER 2006	<i>HNF-N-506-3</i>	Ice Chest No. <i>TJ-2</i>	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.	
Protocol SURV	Priority: 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** **Total Activity Exemption: Yes No**
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LK17		W	<i>1-16-07</i>	<i>0931</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LK17		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LK17		W			1x20-mL P	Activity Scan	None
B1LK17		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1LK17		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						<i>Jm3P9</i>	

Relinquished By FLUOR HANFORD M.R. WEIL	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>JAN 16 2007 14:15</i>	Received By DAVID HARDISON	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>JAN 16 2007 14:15</i>	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water I = Ionid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	



STL

Sample Check-in List

Date/Time Received: 1/16/07 1430

Client: PNL

SDG #: W05093

NA ()

SAF #: 607-112

NA ()

Work Order Number: J7A196134

Chain of Custody #

607-012-54

Shipping Container ID:

Air Bill #

1. Custody Seals on shipping container intact? NA () Yes () No ()
2. Custody Seals dated and signed? NA () Yes () No ()
3. Chain of Custody record present? Yes () No ()
4. Cooler temperature: _____ NA () 5. Vermiculite/packing materials is NA () Wet () Dry ()
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA () Yes () No ()
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - _____ appropriate samples labels
9. Samples are:
 - _____ in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA () pH < 2 () pH > 2 () pH > 9 ()
11. Sample Location, Sample Collector Listed? * Yes () No ()
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes () No ()
13. Description of anomalies (include sample numbers): _____

Sample Custodian

[Signature]

Date:

1/16/07 1430

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

() No action necessary; process as is.

Project Manager _____

Date _____



STL

Sample Check-in List

Date/Time Received: 07-18-07 14:10

Client: PEW SDG #: W05093 NA [] SAF #: W07-012 NA []

Work Order Number: J7A190147 Chain of Custody # W07-072-366

Shipping Container ID: Air Bill #

1. Custody Seals on shipping container intact? NA [] Yes [x] No []
2. Custody Seals dated and signed? NA [] Yes [x] No []
3. Chain of Custody record present? Yes [x] No []
4. Cooler temperature: NA [x] 5. Vermiculite/packing materials is NA [x] Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [x] Yes [] No []
8. Samples have:
 - ___ tape
 - ___ custody seals
 - ___ hazard labels
 - [x] appropriate samples labels
9. Samples are:
 - [x] in good condition
 - ___ broken
 - ___ leaking
 - ___ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA [] pH<2 [x] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? * Yes [x] No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No [x]
13. Description of anomalies (include sample numbers):

Sample Custodian: S. Smith Date: 07-18-07 14:10

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J7A190183
W05093

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

A07-010-2

Page 1 of 1

Collector Fluor Hanford	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. A07-010	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title LLWMA(2) - PA, OCTOBER 2006	Ice Chest No. HNS-N-506 41	Temp.		
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol Other	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** **Total Activity Exemption:** Yes No
 Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KL13		W	1-18-07	0730	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KL13		W			1x20-mL P	Activity Scan	None
B1KL13		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1KL13		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1KL13		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
JM4AA							
1-18-07							

Relinquished By Fluor Hanford D. P. CONNOLLY	Print 	Sign 	Date/Time 1510 JAN 18 2007	Received By S. Smith	Print S. Smith	Sign 	Date/Time 1510 JAN 18 2007	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time					
Relinquished By	Date/Time	Received By	Date/Time					
Relinquished By	Date/Time	Received By	Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time		



STL

Sample Check-in List

Date/Time Received: 01-18-07 1510

Client: P6W SDG #: W05093 NA SAF #: A07-010 NA

Work Order Number: J7A190183 Chain of Custody # A07-010-1,2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA Yes No
2. Custody Seals dated and signed? NA Yes No
3. Chain of Custody record present? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
11. Sample Location, Sample Collector Listed? * Yes No
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: A. Smith Date: 01-18-07 1510

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____

PNNL *J7A200145*
W05093
Rec 03-05-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A07-012-3**
 Page 1 of 1

Collector <i>Fluor Hanford</i> D. P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. A07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title LLWMA(1)-PA, DECEMBER 2006	<i>HNF-N-506</i>	Ice Chest No. Temp. <i>SM L-442</i>
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol Other	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LJR4		W	<i>1-16-07</i>	<i>1350</i>	1x20-mL P	Activity Scan	None
B1LJR4		W	<i>1</i>	<i>1</i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LJR4		W	<i>1</i>	<i>1</i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
<i>JMSH1</i>							
<i>1-18-07</i>							
<i>WAF</i>							

Relinquished By <i>Fluor Hanford</i> D. P. CONNOLLY	Print	Sign <i>[Signature]</i>	Date/Time <i>1510</i> JAN 18 2007	Received By <i>[Signature]</i> <i>[Signature]</i>	Print	Sign	Date/Time <i>1510</i> JAN 18 2007	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time



STL

Sample Check-in List

Date/Time Received: 01-18-07 1510

Client: P6W SDG #: W05093 NA () SAF #: A07-012 NA ()

Work Order Number: J7A200145 Chain of Custody #: A07-012-3

Shipping Container ID: Air Bill #

- 1. Custody Seals on shipping container intact? NA () Yes (X) No ()
- 2. Custody Seals dated and signed? NA () Yes (X) No ()
- 3. Chain of Custody record present? Yes (X) No ()
- 4. Cooler temperature: NA (X) 5. Vermiculite/packing materials is NA (X) Wet () Dry ()
- 6. Number of samples in shipping container: 1
- 7. Sample holding times exceeded? NA (X) Yes () No ()
- 8. Samples have:
 - ___ tape
 - ___ custody seals
 - ___ hazard labels
 - (X) appropriate samples labels
- 9. Samples are:
 - (X) in good condition
 - ___ broken
 - ___ leaking
 - ___ have air bubbles
 - (Only for samples requiring head space)
- 10. Sample pH taken? NA () pH < 2 (X) pH > 2 () pH > 9 ()
- 11. Sample Location, Sample Collector Listed? * Yes (X) No ()
*For documentation only. No corrective action needed.
- 12. Were any anomalies identified in sample receipt? Yes () No (X)
- 13. Description of anomalies (include sample numbers):

Sample Custodian: A. Smith Date: 01-18-07 1510

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

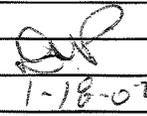
() No action necessary; process as is.

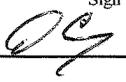
Project Manager _____ Date _____

Collector Fluor Hanford D. P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. W07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, DECEMBER 2006	HNF-N-5064	Ice Chest No. Temp. SML-442
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LHD5		W	1-18-07	632	1x20-mL P	Activity Scan	None
B1LHD5		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LHD5		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LHD5		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LHD5		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1LHD5		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
JM554							
							

Relinquished By Fluor Hanford D. P. CONNOLLY	Print	Sign 	Date/Time 1510 JAN 18 2007	Received By A. Smith S. Smith	Print	Sign	Date/Time 1510 JAN 18 2007	Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	



STL

Sample Check-in List

Date/Time Received: 07-18-07 15:10

Client: PBW SDG #: W05093 NA SAF #: W07-012 NA

Work Order Number: J7A200151 Chain of Custody # W07-012-64

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA Yes No
2. Custody Seals dated and signed? NA Yes No
3. Chain of Custody record present? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - _____ appropriate samples labels
9. Samples are:
 - _____ in good condition
 - _____ broken
 - _____ leaking.
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
11. Sample Location, Sample Collector Listed? * Yes No
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: A. Smith Date: 07-18-07 1510

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary: process as is.

Project Manager _____ Date _____

PNNL *J7A200163*
W05093
Dec 03-05-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-74**
 Page 1 of 1

Collector <i>Fluor Hanford</i> D. P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. S07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. DECEMBER 2006	<i>HWF-N-506 4</i>	Ice Chest No. Temp. <i>3mL-442</i>
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LBX2		W	<i>1-18-07</i>	<i>1350</i>	1x20-mL P	Activity Scan	None
B1LBX2		W	<i>L</i>	<i>L</i>	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LBX2		W	<i>L</i>	<i>L</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JMSLJ</i>							
<i>WDP</i> <i>1-18-07</i>							

Relinquished By <i>Fluor Hanford</i> D. P. CONNOLLY	Print	Sign <i>[Signature]</i>	Date/Time <i>1510</i> JAN 18 2007	Received By <i>S. Smith</i>	Print	Sign <i>[Signature]</i>	Date/Time <i>1510</i> JAN 18 2007	Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time



Sample Check-in List

Date/Time Received: 07.18.07 1510

Client: P6W SDG #: W05093 NA SAF #: 307-012 NA

Work Order Number: J7A200163 Chain of Custody # 307-012-74

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA Yes No
2. Custody Seals dated and signed? NA Yes No
3. Chain of Custody record present? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - appropriate samples labels
9. Samples are:
 - in good condition
 - _____ broken
 - _____ leaking.
 - _____ have air bubbles
 - (Only for samples requiring head space)
10. Sample pH taken? NA pH<2 pH>2 pH>9
11. Sample Location, Sample Collector Listed? * Yes No
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 07-18-07 1510

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____